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THE GENDER DIMENSION OF REFUGEES' INTEGRATION IN THE LABOR MARKET

Abstract

The paper examines the gender differences in labor market integration among refugees and their determinants. It focuses on a longitudinal dataset that includes the universe of the refugee population in Switzerland over a 20-years period. Over the period examined the large majority of refugees come from developing economies. The quasi-random allocation of asylum seekers across cantons, which are different in their socio-economic characteristics, provides a natural experiment to identify the causal effects of the source country culture as well as the role of the local initial conditions in affecting the trajectory of refugees' labor market integration. Empirical findings highlight the importance of source country culture, though there is some variation in the persistence of the effects over time. The research also highlights the negative role of initial unemployment and the positive role of co-ethnic networks, which vary by gender and according to the characteristics of the network. Moreover, empirical findings show the positive effects of local attitudes towards gender equality in affecting women refugees' labor market outcomes.

JEL Classification: F22, J24, J61

Keywords: Refugees, Labor market integration, Gender

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The Gender Dimension of Refugees' Integration in the Labor Market[1]

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Abstract

The paper examines the gender differences in labor market integration among refugees and their determinants. It focuses on a longitudinal dataset that includes the universe of the refugee population in Switzerland over a 20-years period. Over the period examined the large majority of refugees come from developing economies. The quasi-random allocation of asylum seekers across cantons, which are different in their socio-economic characteristics, provides a natural experiment to identify the causal effects of the source country culture as well as the role of the local initial conditions in affecting the trajectory of refugees' labor market integration. Empirical findings highlight the importance of source country culture, though there is some variation in the persistence of the effects over time. The research also highlights the negative role of initial unemployment and the positive role of co-ethnic networks, which vary by gender and according to the characteristics of the network. Moreover, empirical findings show the positive effects of local attitudes towards gender equality in affecting women refugees' labor market outcomes.

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1 Introduction

The global refugee crisis is posing unprecedented challenges. According to the most recent statistics of the United Nations High Commissioner for Refugees, more than 120 million individuals were forcibly displaced by May 2024 and the number of refugees has tripled over the last decade (UNHCR 2025a, 2025b). Not only has the number of refugees increased over time, but also the socio-demographic composition of these migratory flows has changed over the past decades. Globally, women and girls represent approximately 49 percent of the refugee population (UNHCR 2025a). Millions of forcibly displaced individuals seek asylum in high-income countries.

A fundamental aspect regarded as an indicator of the integration of migrants in the host countries is their participation in the labor market. Gender gaps in labor force participation and labor market outcomes persist among international migrants (Lee et al. 2022). Women's labor force participation in the host country is not only affected by institutional factors and economic conditions but is also shaped by gender-specific social norms, attitudes, and beliefs on the appropriate role of women in society. Recent research highlights that women refugees have lower rates of labor force participation than their male counterparts (Fasani et al. 2022). Yet, there is very limited evidence about gender differences in labor market integration and labor market decisions of female refugees, their dynamics over the life-cycle, and the role of different factors that affect their trajectories. Understanding these dynamics is fundamental for both academics and policy-makers in light of the magnitude of the current stocks and forecasted flows of refugees for the coming decades.

The aim of this paper is to advance our understanding of the gender differences in labor market integration of refugees and their determinants. In order to address these fundamental research questions, the study focuses on the universe of refugees in Switzerland from 1998 to 2018. Switzerland provides a prominent example of a multi-cultural and multi-linguistic society, with more than 30 percent of its resident population that is foreign-born (Federal Statistical Office 2025). It also has an important history and a long-standing tradition in hosting refugees, and has played an important role as a leading host nation of refugees in Europe (Piguet 2019). Over the period examined the large majority of refugees come from developing economies. The study employs a unique dataset, which is constructed by relying on different administrative sources including social security records and population censuses, and which provide information about refugees' socio-demographic characteristics. The dataset presents the longitudinal dimension, which makes it possible to follow the same individuals over time and examine the evolution of refugees' labor market integration since arrival in the host country.

The core of the analysis of our paper is organized as follows. The study first provides an analysis of the role of cultural values and gender-related social norms in affecting the dynamics of gender gaps in labor market outcomes. We provide the first application – to the best of our knowledge – of the "epidemiological approach" that focuses on refugees. That is, building on previous research that focuses on migrants in general (e.g., Antecol 2000; Fernández and Fogli 2009), we analyze to what

extent refugees bring with themselves cultural values and attitudes from their country of origin, and to what extent these cultural preferences have an effect on women's labor force participation and on the employment gap between refugee women and men.

The paper then examines the role of the local initial conditions in the Swiss cantons in affecting gender gaps in labor market integration. We focus on three local aspects in the Swiss cantons: unemployment rates, co-ethnic networks and natives' attitudes towards gender equality. To measure these attitudes toward gender equality, we use the cantonal vote outcomes of a 1981 referendum on a constitutional amendment that introduced the principle of gender equality in the Swiss constitution. Our analysis also sheds light on the interplay between refugees' "culture from the country of origin", and "local culture" in the host cantons, and its role in shaping their labor market outcomes. The methodology employed in this part of the analysis to identify causal effects builds on our previous study (Müller et al. 2023). It relies on the spatial dispersal policy adopted by the Swiss government, which involves the quasi-random allocation of refugees across cantons. These cantons differ in terms of local initial conditions, including macroeconomic factors, co-ethnic networks, cultural values, and gender-related social norms. Understanding the dynamics of labor market integration is fundamental to understand the overall effects of forced displacement on refugees themselves, the host society and the sending countries in the developing world.

Our paper makes three main contributions. First, we present new facts on gender gaps in labor market integration for the universe of the refugee population in a high-income country, which is also a prominent example of a multicultural society, and document these facts over an extended time that covers 20 years. Specifically, we document gender gaps in labor market integration for the universe of refugees in Switzerland over a 20-year period, from 1998 until 2018. We rely on the longitudinal dimension of our dataset to advance knowledge on how the effects vary over the life-cycle, when the gender gaps emerge, and how they evolve over 20 years.

Second, our paper examines the role of culture, both in terms of culture from refugees' country of origin and local culture of the native population in the host country, in shaping the dynamics of gender gaps in labor market integration. To the best of our knowledge, this is the first study to present an analysis and test of the "epidemiological approach" in the context of refugee migration.

Third, we complement our analysis of culture with an examination of the heterogeneity in local initial conditions – in terms of macroeconomic factors, co-ethnic networks, and attitudes of the native population towards migrants and refugees – to identify the causal effect of these initial local conditions, their relative importance with respect to other factors like culture, and how their relative importance changes over time and shapes the dynamics of gender gaps in labor market integration among refugees.

Our baseline analysis reveals that both indicators of source country culture have a significant influence on the socioeconomic integration of refugee women, aligning with findings in the broader migration literature. Specifically, women from countries with higher female-to-male labor force participation have a higher probability of employment and higher earnings in Switzerland. Conversely, coming from a

country with higher fertility rates negatively impacts their labor market integration. We also observe that both dimensions of these cultural indicators are persistent over time, with the negative impact of fertility rates diminishing and approaching zero about 10 years after arrival in Switzerland.

Furthermore, our findings indicate that local conditions within host cantons play a crucial role in shaping gender disparities in employment. Placement in cantons with more open attitudes toward gender equality and larger co-national networks is associated with a reduction in the gender employment gap. On the other hand, being assigned to cantons with higher unemployment rates increases the gender gap in employment, with women being more negatively affected than men. For women from high-fertility countries, the canton to which they are allocated is particularly important: arriving in a canton with more positive attitudes toward gender equality significantly reduces the gender employment gap for these women. Our empirical findings also show that co-national networks have a positive effect on women's labor force participation but not on men's. Further analysis of the different characteristics of co-ethnic networks and their role in shaping refugees' labor market integration shows an interesting pattern, which varies by gender. For male refugees, the network of working co-nationals has a positive and significant effect on their probability of employment. On the other hand, for women refugees it is the presence of not-working co-nationals which increases their employment rates.

The remainder of the paper is organized as follows. Section 2 presents a review of the literature as well as an overview of the institutional background in Switzerland, which is relevant for the analysis, with a specific focus on the government spatial dispersal policy of asylum seekers and an overview of major institutional changes related to gender equality. Section 3 discusses the methodology, as well as the data sources, construction of the data set and the empirical strategy. Section 4 presents the empirical findings and positions them within the existing literature. Section 5 provides concluding remarks.

2 Literature Review and Background

2.1 Literature Review

Our paper contributes to the literature on labor market integration of international migrants and refugees. Specifically, it contributes to three main areas of the existing literature: gender differences in labor market outcomes among international migrants; the long-lasting role of culture in affecting labor market integration of international migrants; the role of local conditions in affecting refugees' labor market integration (both economic conditions and cultural factors).

The literature that has examined gender gaps in labor market integration among international migrants has mainly focused on economic migrants. The main findings of this literature suggest that gender gaps exist at the time of arrival in the host country, with heterogeneity regarding the magnitude of the initial gaps and the speed of convergence. Existing research provides heterogeneous evidence on

whether convergence is completed after 10 (or 20) years since arrival. Existing studies also highlight the role of individual-level characteristics such as age at arrival, level of educational attainment, skills and experience in affecting the patterns of convergence and the closing of the gender gaps in labor market integration (e.g., Schoeni 1998; Adsera and Chiswick 2007; Lee et al. 2022). Evidence related to gender differences in labor market integration for refugees is limited to a few stylized facts documented in recent studies, which show to what extent overall labor force participation of women's refugees seems to be lower than the male counterparts (e.g., Brell et al. 2020; Fasani et al. 2022). Whether the dynamics of gender gaps in labor market integration among refugees will follow a similar pattern as international migrants and how they change over time is an empirical question. On the one hand, refugees are not self-selected in the host country as economic migrants but on the other hand, they likely were exposed to shocks (e.g., conflict, natural disasters, etc.) which may affect their labor market outcomes and put them at a disadvantage at the time of arrival in the host country (e.g., Battisti et al. 2022). Our empirical analysis contributes to this literature by examining gender gaps in labor market outcomes focusing on the universe of the refugee population in the host country and following them over 20 years since arrival. The data we employ presents the longitudinal dimension and allows us to control for individual-level characteristics as well as for local institutional and economic conditions.

The literature that has examined the fundamental role that cultural values and gender-specific social norms play in shaping labor market integration among international migrants has also mainly focused on international migrants. A fundamental contribution to this literature was made by Fernández and Fogli (2009) who tested the "epidemiological approach" in economics and examined the long-lasting effects of cultural values in shaping women's decisions concerning labor force participation and fertility. In this context, the underlying mechanisms are represented by the intergenerational transmission of cultural values within the family. Other studies have adopted a similar methodology and examined the role of cultural values from migrants' country of origin and how they affect women's labor force participation and other outcomes (e.g. Blau et al. (2011); Nollenberger et al. (2016); Erman (2022); excellent reviews of the literature include Fernández (2011); Giuliano (2020)). Whether the cultural values, beliefs, and attitudes over what is appropriate in terms of women's labor force participation outside the household also have a long-lasting effect and shape the refugee population labor market integration is an empirical question. Moreover, another fundamental aspect that remains to be examined is related to how culture changes over time; the core of the economic literature in economics has focused on the persistence of culture whereas more recent studies have examined the process of cultural change (e.g., Bastian 2020; Bursztyn et al. 2020; Fernández et al. 2024). Our analysis builds on the existing literature and aims to improve existing analyses by examining time-varying indicators for culture in the refugees' country of origin (i.e., by source country and year of arrival). We consider 72 origin countries in total—71 developing countries and one high-income country.

The role of local conditions in affecting refugees' labor market integration has been examined in recent studies focusing on refugees' integration in high-income countries. The core of the existing

research has examined the role of macroeconomic factors, co-ethnic networks, and attitudes of the native population towards migrants. Overall, existing studies have documented the negative impact of high unemployment and economic downturns (e.g., Åslund and Rooth 2007; Aksoy et al. 2023). Mixed evidence has been found concerning the role of networks, with some studies showing the positive effects that ethnic enclaves may have, whereas others showing to what extent in the long-run it may play a negative role in labor market integration, as well as others finding a non-significant impact (e.g., Edin et al. 2003; Beaman 2012; Martén et al. 2019; Battisti et al. 2022; Bahar et al. 2024). More limited research has examined the role of attitudes of the native population in affecting refugees' integration in the host country (e.g., Jaschke et al. 2022; Aksoy et al. 2023), with only Müller et al. (2023) who examined the effects of attitudes towards refugees by relying on an objective measure of attitudes derived from voting data. Further analysis is needed to develop a better understanding of the role that both local economic conditions and cultural factors play in shaping refugees' integration; in the framework of the analysis of this study, it is especially important to examine both attitudes towards refugees and attitudes towards gender equality. Existing research presents mixed evidence with respect to the existence of a "double penalty" for immigrant women in the labor market (e.g., Hayfron 2002; Sanchez-Dominguez and Guirola Abenza 2021; Fossati et al. 2024), and refugee women could face an additional disadvantage. Our analysis aims to provide a contribution to existing research in this area as follows. First, we will rely on an objective measure of local attitudes based on canton-level voting outcomes in a referendum about a constitutional amendment that introduced the principle of gender equality in the Swiss constitution. Second, the objective measures of attitudes will include both attitudes towards gender equality and attitudes towards refugees.

2.2 Background

Two aspects of the Swiss institutional context characterize the time-period under study and are central to the design of the empirical analysis. First, the government spatial dispersal policy of asylum seekers, namely the quasi-random allocation of asylum seekers across Swiss cantons. Second, the legislation related to important dimensions of gender equality such as voting on a constitutional amendment related to gender equality, or on legislation concerning maternity leave policies and retirement age. The next sub-sections present a brief summary of this institutional background.

The Government Spatial Dispersal Policy of Asylum Seekers. This sub-section presents a short summary of the allocation process of refugees in Switzerland; for a more detailed description, please refer to Müller et al. (2023). The Swiss State Secretariat for Migration is responsible for designing refugee-related policies and managing the allocation process of asylum seekers and refugees on Swiss territory. The allocation process and resettlement policies of refugees during the period under study

are regulated by the Federal Act of Asylum of 1998.[2] According to the procedure documented in this Asylum Act, after filing an asylum application and being hosted in one of the national reception centers, asylum seekers are assigned to one of the 26 Swiss cantons where they are required to reside. The assignment of asylum seekers across cantons is carried out centrally by the State Secretariat for Migration. The spatial assignment is exogenous with respect to the asylum seekers' socio-demographic characteristics and is also independent of their preferences; the allocation across cantons is established based on quotas that are related to the cantons' population size (Müller et al. 2023; Ahrens et al. 2023; Martén et al. 2019; Couttenier et al. 2019). This exogenous spatial dispersal policy provides an ideal setting and a natural experiment to identify the causal effects of the local initial conditions on the asylum seekers' trajectory of labor market integration.

The Gender Equality Legislation. This sub-section provides a brief overview of key institutional changes related to gender equality in Switzerland that are relevant to the analysis in this paper. Globally, Switzerland ranks 20th in the 2024 Global Gender Gap Index of the World Economic Forum, and with respect to the sub-indexes focusing on "Political Empowerment" and "Economic Participation and Opportunity"[3] ranks 19th and 53rd respectively.[4] Important institutional changes with implications for the role of women in society and their participation in the labor force have occurred over the past few decades. A fundamental institutional change related to equality between men and women was initiated by a popular initiative for gender equality, leading the parliament to elaborate a counterproposal that was accepted by 60.3 percent of the votes in a referendum in 1981.[5] The principle of gender equality was introduced as an amendment to the Swiss Federal Constitution in 1981, with Article 8, paragraph 3 stating that: "Men and women shall have equal rights. The law shall ensure their equality, both in law and in practice, most particularly in the family, in education, and in the workplace. Men and women shall have the right to equal pay for work of equal value".[6] This constitutional amendment led to other legislative changes aiming at protecting women's rights and fostering gender equality.

Two other referenda, related to maternity leave and retirement age for women, also represent milestones on the path toward gender equality. First, paid maternity leave was introduced in Switzerland relatively later than in other high-income countries (Girsberger et al. (2023)). In the 1999 referendum, the electorate was asked to decide on the introduction of paid maternity leave, which would grant women a minimum of 14 weeks' leave at 80% of their previous salary. This referendum was unique in that it was the only legislative proposal solely focused on maternity insurance put forward by the government since the acceptance of a constitutional article in 1945.[7] It aimed to provide a minimum

2. The 1998 Asylum Act was revised in the framework of the Asylum Act of 2019, which in general aimed at accelerating the existing procedures.

3. The "Economic Participation and Opportunity" sub-index includes indicators such as labor force participation, wage equality and estimated earned income.

4. https://www3.weforum.org/docs/WEF$_{G}GGR_{2}$024.*pdf*.

5. https://www.ebg.admin.ch/en/facts-and-figures-on-gender-equality.

6. https://www.fedlex.admin.ch/eli/cc/1999/404/ena8.

7. In contrast, the accepted 2004 vote included a combined proposal for several benefits within the employment compensation regulations.

nationwide coverage of maternity insurance, which, prior to the legislative change, did not exist in the majority of cantons. It was rejected by 61 percent of the votes.[8] Second, the retirement age for women has been a hot political issue during our period of analysis. In this context, an important referendum was the 2022 vote on pension reforms ("AVS21 reform"), which proposed raising the retirement age for women from 64 to 65, aligning it with the retirement age for men. The reform was approved with a slim majority (50.5 percent of the votes).[9]

3 Research Design

In this section, we describe the data used in the analysis, the empirical approach and provide some descriptive statistics of our sample and indicators.

3.1 Data Sources

The refugee data is combined from different administrative databases, provided by the Swiss Federal Statistical Office. This approach allows us to construct a comprehensive longitudinal dataset that spans 20 years, from 1998-2018, and covers the universe of refugees in Switzerland. To identify asylum seekers who arrived before 2010, we rely on the AUPER (Automatisierte Personen Registratursystem) database, which records asylum seekers (holding N or F permits) entering Switzerland up to the year 2010. This dataset maintained by the State Secretariat for Migration (SEM) is exhaustive and includes details on residence permits, year of arrival, canton of arrival, country of origin and other sociodemographic characteristics. Starting in 2010, asylum seekers are documented in the yearly population census (Statpop) from the moment they enter Switzerland and their data continues to be tracked through all permit changes. For the pre-2010 period, we supplement our data with the ZAR (Zentrales Ausländerregister) dataset, which allows us to monitor asylum seekers after their status changes. Once an individual transitions from an N (asylum seeker) or F (temporary admission) permit to any other residence permit, they are no longer registered in AUPER but in ZAR. This dataset provides comprehensive information on all foreigners residing in Switzerland, akin to the AUPER. By integrating these three data sources we can accurately identify and track all asylum seekers who arrived in Switzerland during our analysis period. For our study, we focus on the years 1998-2018, as labor market outcomes are available from 1998 onwards.

The analytical sample includes all refugees, defined as foreign-born individuals who went through an asylum process, who arrived in Switzerland between 1998 and 2018. We focus on individuals aged between 18 and 59, ensuring that our sample captures those that are of working age and are not yet retired, independent of different statutory retirement ages. Additionally, we restrict the sample to refugees who arrived after the age of 17 to exclude individuals who may have accessed primary or

8. https://www.parlament.ch/en/%C3%BCber-das-parlament/political-women/portraits/history-maternity-insurance
9. https://www.bk.admin.ch/ch/f/pore/va/20220925/can660.html

secondary education in Switzerland. We further refine the sample by excluding individuals coming from countries with fewer than 30 refugees (and less than 100 observations) and from European Union member countries. Moreover, three countries of origin are excluded due to the absence of an ISO3 code, as they no longer exist in their original form: Yugoslavia, the Soviet Republic, and Serbia and Montenegro. Consequently, we lack source country characteristics for these regions. The final sample consists of 84 798 refugees from 72 different origin countries, namely 71 developing countries and one high-income country (see Table A.1).

Our main outcomes of interest to capture refugees' socio-economic integration are their labor force participation and earnings.[10] This information is sourced from the Swiss Social Security data provided by the Federal Compensation Office. Every Swiss resident contributing to old-age and survivor's insurance (OASI) is included in this dataset, which records the size and nature of contributions, along with various sociodemographic characteristics. Using the social security number, we match this data to our refugee data. We define an individual as employed in a given year if they have made contributions to old-age provisions through either salaried or independent work. Additionally, from the same data source, we extract information on earnings. It is important to note that the earnings data is reported as annual earnings, without details on work hours or periods of non-employment. Therefore, the results should be interpreted with caution, knowing that still predominantly women are employed part-time.[11]

The administrative dataset we combined includes information on the refugee's sociodemographic characteristics We use this information as control variables in our regressions. We include age, age squared, marital status, and whether they potentially speak the language of the arrival canton. Speaking the language of the canton where an individual will eventually seek employment is a crucial determinant (Foged et al. (2024)), but this information is not contained in the register data. Therefore, we augment our main sample with data on official and most spoken languages in the countries of origin, sourced from Negret et al. (2022). This allows us to define a variable for cantonal language proficiency based on an individual's country of origin. Additionally, individuals from former French colonies are considered potential French speakers.

Finally, to incorporate information on educational attainment, we use a subsample of individuals who participated in the Swiss Structural Surveys. The Swiss Structural Survey is available for the years 2010-2018 and includes permanent residents from 15 years old. However, this dataset has certain limitations: it is cross-sectional, sampling approximately 200,000 individuals at random per year, participation is voluntary, and the variables are self-reported. We extract the highest education level achieved by an individual and treat this variable as constant over time to maintain the panel structure of our data.

In the following subsections, we will elaborate on the key explanatory variables used to identify the effects of: 1) source country culture, and 2) local conditions within the Swiss cantons.

10. The administrative data does not allow to identify occupations in detail.
11. https://www.bfs.admin.ch/bfs/en/home/statistics/work-income/employment-working-hours/labour-force-characteristics/full-time-part-time.html

Source Country Characteristics. In the first part of the analysis, we focus on how the cultural values that refugees bring with them impact the labor market integration of refugee women and influence the employment gap between female and male refugees. To analyze the cultural dimension in the socio-economic integration of refugees in Switzerland, we include two variables as proxies for gender attitudes in the source countries: the female-to-male labor force participation (LFP) ratio and the total fertility rate. Both indicators are time-varying and are assigned to refugees based on their country of birth and year of arrival. These two indicators reflect the economic, institutional, and cultural conditions for women in the labor market of the source countries. However, using the epidemiological approach described by Fernández and Fogli (2009), we can isolate the cultural dimension as the determinant of a woman's labor market decisions in Switzerland.

The female-to-male LFP ratio is the fraction of economically active women (aged 15 years or older) relative to men in a country, provided by the International Labour Organization (ILO). Consistent with recent literature on gender dynamics and labor market outcomes (e.g., Blau et al. (2011) and Bredtmann and Otten (2023)), we use the ratio of female-to-male labor force participation to capture gender disparities in the source countries more effectively than using female LFP alone. The ratio offers a more refined perspective on gender inequality by comparing the participation rates of women to men. This approach controls for general economic activity levels and provides a relative measure of gender disparity. In contrast, female LFP alone does not account for the broader context of gender inequality and may be influenced by factors such as overall economic conditions that affect both genders.

The total fertility rate estimates the potential number of births per woman based on the age-specific fertility rates for a specific year and country, assuming the woman survives through her entire reproductive years. This data is sourced from the World Bank. The fertility rate is chosen as an indicator because it provides insights into societal attitudes toward gender roles. High fertility rates are often associated with traditional gender norms and expectations that prioritize childbearing and domestic roles for women. Additionally, the fertility rate is influenced by other socioeconomic conditions such as access to education, employment opportunities and healthcare services.

While the female-to-male LFP ratio offers a snapshot of countries underlying beliefs about the role of women in the labor market, the fertility rate complements this by reflecting reproductive and familial expectations. Together, these indicators provide a comprehensive view of how cultural attitudes towards gender roles in the origin countries can impact labor market integration for women in Switzerland.

Initial Local Conditions. In the second step of our analysis, we examine the impact of the initial local conditions that refugees encounter upon arriving in the Swiss cantons on the gender employment gap. Additionally, we explore how these local conditions interact with the cultural values that refugees bring with them to Switzerland. To investigate this, we supplement our dataset with information on the initial unemployment rates and the presence of co-ethnic networks at the time of arrival in each canton, as well as a time-constant indicator of natives' attitudes towards gender equality.

The unemployment rate, provided annually by the State Secretariat of Economic Affairs (SECO), covers all unemployed individuals who are registered at a regional employment office.[12] The extent of co-ethnic networks is defined as (the logarithm of) the number of individuals from the same nationality residing in the canton at the time of the refugee's arrival.[13] Furthermore, we are not counting the individuals themselves as being part of their network. In an important robustness test, we distinguish between networks of employed co-nationals (who might procure the advantages of a professional network) and networks of not working co-nationals (who could provide other types of support such as child care).

To measure natives' attitudes towards gender equality, we use a variable based on cantonal vote outcomes related to this issue. A significant milestone toward gender equality in Switzerland was the 1981 popular vote aimed at embedding the principle of gender equality in the Swiss constitution. The constitutional change was accepted by 60.3 percent of voters, with large differences between cantons. We use the cantonal share of Yes-votes as indicator for attitudes toward gender equality. It has the advantage over survey-based indicators that there is no hypothetical bias since the outcome of the vote is binding for the government. Furthermore, as this variable captures natives' attitudes long before our sample period and at a time when refugees' labor market integration was not a salient political issue, we can safely exclude the possibility of reverse causality. For all these reasons, this indicator seems a reliable measure of cantonal differences in persistent long-run attitudes toward gender equality.

There were some more recent votes that are related to gender equality, but in all cases the issue of gender equality is intertwined with other issues, such as the dimension of the welfare state or social security reforms. As the objects up for vote were very different, we are unable to define a time-varying index of attitudes toward gender equality. We will, however, use the cantonal results of two other referenda to test the robustness of our measure of natives' attitudes toward gender equality. One referendum was held in 1999, marking the beginning of our analysis period. The electorate was asked to decide on the introduction of paid maternity leave, which would grant women a minimum of 14 weeks' leave at 80% of their previous salary. This referendum was unique in that it was the only legislative proposal solely focused on maternity insurance put forward by the government since the acceptance of a constitutional article in 1945.[14] The other referendum included in our robustness analysis is the 2022 vote on a social security reform ("AVS21" reform), which proposed raising the retirement age for women to 65, aligning it with that for men.[15] The 2022 referendum on retirement age was approved

12. Except for asylum seekers (permit N) and temporarily admitted refugees (permit F).

13. Our measure of an individual's network includes refugees and other foreigners of the same nationality. To ensure that individuals without a network upon arrival are not excluded from our sample, our network indicator is defined as the logarithm of (1 + the number of co-nationals).

14. The constitutional article provided the legal basis for the introduction of a law on maternity insurance. Previous proposals by the government to include paid maternity leave within a general revision of health insurance were rejected in 1984, as was the 1999 proposal. A new project was finally accepted in 2004, but this project also included revisions of several other benefits within the employment compensation regulations.

15. Although the proposal to align women's retirement age with men's could be interpreted as a step towards more gender equality, feminist organizations and left-leaning parties strongly opposed this reform with the argument that this was a step backward since discrimination remained widespread within the social security system or in the labor market. In line with the Swiss political debate, we interpret a refusal of the reform as an expression of attitudes in favor of more equality between men and women.

by 50.5% of voters, whereas the 1999 vote on maternity insurance was rejected by 61%. For these two referenda, we use the share of votes in favor of more gender equality in each canton as a proxy for attitudes toward gender equality (Yes-votes for the first and No-votes for the second referendum) and calculate the average over all three votes.

Attitudes toward gender equality might be closely related to attitudes toward refugees and political asylum. To disentangle the two dimensions of attitudes, we use the cantonal vote outcomes in a 1996 referendum on a proposed reform of the legal framework for political asylum in Switzerland. After a significant rise in the number of refugees arriving mostly from ex-Yugoslavia in Switzerland in the early 1990s, the right-wing Swiss People's Party (SVP/UDC) launched a popular initiative that proposed to severely limit the rights of asylum seekers.[16] The proposal, which was rejected in 1996 by 53.7% of voters, arguably captures well natives' attitudes toward refugees and political asylum in Swiss cantons.

3.2 Descriptive Statistics

In this section, we present descriptive statistics for the analytical sample of refugees and the explanatory variables used in the two parts of the analysis: source country characteristics and initial local conditions.

Refugee sample. Table 1 presents descriptive statistics for refugees included in our sample in the year 2015. Panels A and B provide snapshots of male and female refugees in the full sample and the Structural Survey subsample, respectively. Panels C and D focus on female refugees only, reporting statistics for the full sample and the Structural Survey subsample. In 2015, 40% of individuals in our sample were women, with an average age at arrival of 29 years. That year, 37% of female refugees were employed, compared to 47% in the overall sample. Employment rates are higher in the Structural Survey subsamples, with 45% of women and 58% of all refugees employed.

It is important to note that these figures reflect simple snapshots and do not account for differences in the length of stay. For example, many newly arrived refugees from Syria were included in the 2015 sample but were not yet eligible to work. In contrast, individuals participating in the Structural Surveys had already spent a longer period in Switzerland. Therefore, it is more informative to look at the employment rate by years since arrival and gender. The raw employment rates are depicted in Figure 1. The figure shows that the employment rate increases for both genders, and that the difference shrinks as individuals spend more years in Switzerland. However, women continue to have lower employment rates even 20 years after arrival. Figure 2 shows a similar pattern for earnings, where the differences in log earnings among employed refugees (right graph) in our sample do not decrease significantly over time. [17]

16. This popular initiative was entitled somehow misleadingly "against clandestine immigration" and proposed a constitutional amendment that included in particular the following changes. Asylum seekers would not have been allowed to enter Switzerland while waiting for the decision on their asylum application. The applications of those who entered Switzerland illegally would not have been accepted. Asylum seekers who were already in Switzerland would not have been allowed to work or, if they did so, the part of their income that exceeded basic need would have been withheld until the decision on their asylum request became applicable.

17. This could be due to part-time work, which is especially common among women, but unfortunately is not directly coded in the AVS contributions data

In Panel D of Table 1, we observe that in 2015, 12% of women in the subsample from the structural surveys have tertiary education, while 20% have a secondary II level degree. Individuals in this subsample exhibit, on average, higher employment rates and slightly higher earnings compared to the complete sample of women in 2015. As for the sample including men, shown in Panel B of Table 1, the education level is somewhat higher, with 14% holding a tertiary degree.

Source Country Characteristics. In Table A.2 in the appendix we report the descriptive statistics for the two source country indicators - female-to-male labor force participation ratio and total fertility rate - along with Female and Male LFP separately, organized by source country regions and over the whole period of analysis. It is worth noting that the majority of source countries within our dataset are located in Sub-Saharan Africa. Overall, refugees come from 72 different countries. [18] The average fertility rate across all countries is 3.82 with a standard deviation of 1.8, and the average LFP ratio is 0.65 with a standard deviation of 0.26. Both indicators show substantial variation across source country regions. For instance, the fertility rate is notably highest in Sub-Saharan Africa, with an average of 5.58 children per woman. In contrast, in Europe and Central Asia, the fertility rate is considerably lower, with an average of 1.88 children per woman. Overall, the fertility rate ranges from 1.08 to 7.7 births per woman on average. When examining the female-to-male LFP ratio, we also observe significant disparities between regions. The ratio ranges from 0.09 in Yemen to 1.02 in Burundi. In countries located in South Asia and Middle East & North Africa, the ratio is below the average, with less than half of the women participating in the workforce compared to men. In East Asia & Pacific and Sub-Saharan Africa, on the other hand, the ratio stands at 0.81, indicating that for every 5 men in the workforce, approximately 4 women are also actively employed.

Figure 3 shows the average values of each indicator in our sample over the analysis period for each country. We categorize them into four groups based on high and low values of the two indicators, with the threshold set at the sample mean. These four groups will be used later in the analysis to examine how source country characteristics interact with local conditions in the Swiss cantons. The figure provides valuable insights into the distribution of the two source country characteristics. In the upper right quadrant, we observe mostly countries from Sub-Saharan Africa, which are characterized by both high fertility rates and high female-to-male labor force participation ratios. This indicates a region with relatively high female labor market participation despite high birth rates. Conversely, many countries from the Middle East and North Africa fall into the upper left quadrant, where high fertility rates are accompanied by low female-to-male LFP ratios. The lower right quadrant, representing countries with low fertility rates and high female-to-male LFP ratios, comprises a diverse group. These countries, which show potentially more favorable labor market conditions for women, include nations from all regions except Sub-Saharan Africa. Finally, the lower left quadrant, which includes countries with both low fertility rates and low female-to-male LFP ratios, is also heterogeneous. This group spans South

18. In Table A.2, 71 countries are represented because China and Tibet share the same ISO3 code.

Asia, North Africa, Europe, and the Middle East, reflecting a mix of regions where both fertility rates and female labor market participation are relatively low.

Initial Local Conditions. Our econometric analysis is based on data at the cantonal level (i.e. across the 26 cantons). For conciseness, we present descriptive statistics for the local conditions in Table A.3 in the appendix, aggregated at the greater region level.[19] Similar to the source country characteristics, we observe substantial variation in the local conditions at the regional level, which is even greater at the cantonal level. The outcomes of the gender equality vote range from a minimum of 46.4% of Yes-votes in Oriental Switzerland, which includes more conservative cantons, to a maximum of 66.7% in the Leman region, comprising more progressive cantons in the French-speaking part of the country. The unemployment rate, averaged over the analysis period, is lowest in Central Switzerland at 1.98% and highest in the Leman region at 4.57%. As expected, the size of the co-ethnic networks is larger in cantons with bigger cities than in more rural cantons. Regions with major urban centers such as the Leman region (Geneva and Lausanne), Zurich and North-east Switzerland (Basel) have the largest co-ethnic networks on average. In contrast, Central Switzerland, characterized by more rural regions like Uri or small agglomerations like Schwyz, has the smallest co-ethnic networks.

Figure A.2 illustrates the unemployment rate and network size by regions over time, as well as the results of the vote by canton. Significant differences are evident in the vote outcome by canton.Regarding the evolution of the unemployment rate over time, we see fluctuations that are similar across all regions, although the levels vary significantly, as previously noted. A similar trend is observed for the size of the co-ethnic network at arrival, which generally increases over time while regional differences persist. This temporal and spatial variation is crucial for analyzing the impact of arrival conditions on the socioeconomic integration of women refugees in Swiss cantons.

3.3 Empirical Strategy

To analyze the impact of the culture of the source country on gender equality on the labor market outcomes of refugee women, we employ the epidemiological approach to isolate the cultural component from the institutional setting. Using the sample of refugees over the period of analysis from 1998-2018, we estimate the following baseline equation:

$$Y_{ik\kappa t\tau c} = \delta_0 + \delta_1 S_{c\tau} + \delta_2 X_{it} + \phi_\tau + \phi_\kappa + \phi_{kt} + \varepsilon_{it\tau k\kappa c}, \tag{1}$$

where $Y_{ik\kappa t\tau c}$ denotes the labour market outcome (employment probability or earnings) in year t for a refugee i residing in canton k, who arrived in Switzerland in year τ from origin country c and was assigned by Swiss authorities to canton κ. The model focuses on assessing the impact of cultural indicators from the origin countries $S_{c\tau}$ on the labor market outcomes of refugees. Specifically,

19. According to the Federal Statistical Office and EUROSTAT, cantons correspond to NUTS 3 and greater regions to NUTS 2 statistical regions.

$S_{c\tau}$ includes two key cultural dimensions: The female to male ratio of labor force participation, which captures the gender inequality in the labor market of the refugees' origin countries, and the fertility rate, which reflects societal attitudes towards gender roles and family structure in the source countries. Due to the lack of information on when refugees left their country of origin, we rely on cultural indicators at the time of their arrival in Switzerland. This approach assumes that the cultural context of the source country at the time of arrival reflects the relevant cultural influence. In addition, to account for potentially missing country-level variables related to the preparedness of refugees to work in Switzerland, we include the log of GDP per capita of the source country as a control variable.

We also include a set of individual-level control variables in X_{it}, such as age, age squared, marital status, language proficiency in the arrival canton, and education level for a subsample. The base specification also includes an extensive set of fixed effects to control for unobserved factors. ϕ_τ represents year of arrival fixed effects to account for different economic and social circumstances at the time of arrival that affect all refugees. ϕ_κ controls for characteristics specific to the canton to which the refugee was assigned, which may influence labor market outcomes. Lastly, ϕ_{kt} captures economic and social conditions in the canton of residence and at the time the refugee's employment is observed. This model structure enables us to isolate the impact of cultural factors from the refugees' source countries on their labor market integration in Switzerland while controlling for both individual characteristics and contextual factors. The identification of the effects of cultural factors could, however, be threatened by the possibility that they might be correlated with other, unobserved factors at the source country level. To address this issue, we estimate a different version of our model, including both male and female refugees, which allows us to account for unobservable factors that influence men's and women's employment probabilities in a similar way. In this version of the model, to which we refer as the "*gender gap*" version, we interact all explanatory variables with the female dummy and use source-country fixed effects to capture unobserved factors at the level of the source country. This version yields more reliable estimates of the determinants of the gender gap, i.e., of the impact of factors that determine the disparity in employment rates between women and men. More precisely, we estimate the following equation:

$$\begin{aligned} Y_{ik\kappa t\tau c} =& \delta_0 + \delta_1 Female_i + \delta_2 S_{c\tau} + \delta_3 S_{c\tau} \times Female_i + \delta_4 X_{it} + \delta_5 X_{it} \times Female_i + \phi_\tau + \phi_\kappa \\ &+ \phi_{kt} + \phi_c + \varepsilon_{it\tau k\kappa c} \end{aligned} \tag{2}$$

where $Female_i$ is a dummy variable indicating whether an individual is a woman or not and $S_{c\tau} \times Female_i$ are the interactions between the source country cultural indicators and the female dummy. The interactions estimate the effect of the source country indicators on the gap in employment and earnings between female and male refugees in canton k at time t, for those who arrived in Switzerland in year τ and were assigned to canton κ. The advantage of this approach is that we are can also control for country of origin fixed effects ϕ_c, which absorbs any inherent differences in the refugees' backgrounds

related to their source country.

To investigate whether the effects of source country characteristics on labor market outcomes are persistent as refugees spend more time in Switzerland and whether the magnitude of the impact changes over various periods since arrival, we interact the source country characteristics with dummy variables representing groups of years since arrival in Switzerland. These groups are: 1-2 years, 3-5 years, 6-10 years, 11-15 years, and more than 16 years.

In all models, standard errors are clustered at the source country level to account for potential correlations within source countries.

In the second part of this paper, we investigate the impact of initial local conditions in the arrival cantons on the gender differences in labor market outcomes. Building upon our prior research, where we explored the effects of variables such as the unemployment rate, co-ethnic networks, and natives' attitudes towards immigrants (Müller et al. (2023)), we now extend our analysis to include an indicator of natives' attitudes towards gender equality in the Swiss cantons: the cantonal shares of Yes-votes in the 1981 referendum. In our empirical approach we rely on the quasi random initial placement of refugees in the Swiss cantons and take a more direct approach to measuring cultural beliefs and attitudes toward gender equality than in our analysis of the role of cultural beliefs and attitudes in the refugees' origin countries.[20] The baseline specification estimates the impact of the initial local conditions on the labor market integration of refugees in Switzerland:

$$\begin{aligned} Y_{ik\kappa t\tau c} =& \delta_0 + \delta_1 Female_i + \delta_2 I_{\kappa\tau} + \delta_3 I_{\kappa\tau} \times Female_i + \delta_4 X_{it} + \delta_5 X_{it} \times Female_i \\ &+ \delta_6 K_{\kappa\tau} + \delta_7 K_{\kappa\tau} \times Female_i + \phi_{c\tau} + \phi_{c\tau} \times Female_i + \phi_\kappa + \phi_{kt} + \varepsilon_{it\tau k\kappa c} \end{aligned} \tag{3}$$

where $I_{\kappa\tau}$ is the vector of initial local conditions including the vote indicator, co-ethnic networks and the unemployment rate.[21] We explore how initial local conditions in the Swiss cantons impact the gender gap in the employment probability of refugees. Specifically, we interact these local conditions, the individual characteristics X_{it} and the cantonal (time varying) characteristics $K_{\kappa\tau}$ with a female dummy variable using the entire sample, which includes both men and women. The advantage of this approach is that we are able to account for a broad range of unobserved factors by including fixed effects for the canton of arrival ϕ_κ, current canton by current year ϕ_{kt} and finally, $\phi_{c\tau} \times Female_i$ accounts for unobserved factors at the level of the country of birth at the time of arrival specifically for each gender.

Similar to the analysis of the cultural components described earlier, the main challenge is to avoid that the canton-level indicators capture spurious correlations with other, unobserved factors at the canton-of-arrival level. We address these challenges in two ways. First, the use of canton-of-arrival fixed effects, ϕ_κ, enables us to account for all unobserved time-invariant factors at the canton-of-arrival level

20. In our analysis of the role of cultural beliefs and gender attitudes in the source countries we use two indicators that are established in the literature but measure cultural beliefs and attitudes in an indirect way. This choice is due to the lack of data on attitudes and beliefs in the principal origin countries of refugees in Switzerland. In contrast, when analyzing differences in beliefs and attitudes in the Swiss cantons, we can use the data generated by referenda in the context of the Swiss semi-direct democracy, which provides reliable data even for small cantons.

21. The two latter indicators are time-varying, but the vote indicator is not, as explained above.

that influence the employment probabilities of men and women refugees in a similar manner. Second, we control for time-varying canton-level variables, $K_{\kappa\tau}$, that can affect labor market integration differently for men and women. These controls include the canton's population (log) and the log of the median wage in the canton, measured at the refugee's year of arrival.

Additionally, we examine the interrelations between local initial conditions and the two cultural indicators from the source countries. Specifically, we are interested in understanding how these local conditions, along with the cultural background refugees bring with them, influence women's integration into the labor market measured by the employment gap between refugee men and women. We hypothesize that initial local conditions such as unemployment rates, the presence of co-ethnic networks and attitudes towards gender equality in Swiss cantons may interact with the cultural norms regarding gender roles from the refugees' countries of origin, thereby affecting labor market integration. We analyze these possible interactions by using the two indicators of source-country cultural norms to create four groups of source countries and estimate equation (3) for each group.[22]

4 Results

In this section, we present the results of our econometric estimations. First, we report the effects of source country characteristics on refugees' labor market integration. Then, we examine the role of local conditions in the cantons of arrival in Switzerland. Finally, we discuss how these two dimensions interact. Our results provide insights into the factors influencing refugee women's labor force participation, their earnings, and the "gender gap" in both.

4.1 Source Country Characteristics

This subsection presents the main findings of the analysis regarding source country characteristics. Relying on the epidemiological approach to isolate the effect of the cultural background that refugees bring from their source countries to Switzerland, we present causal estimates of the impact on refugees' labor market outcomes, specifically in terms of employment probability and earnings of female refugees. The analysis reveals that a higher female-to-male labor force participation ratio in the source country significantly enhances labor market outcomes for female refugees in Switzerland. In contrast, higher fertility rates in the source country, which indicate limited labor market opportunities for women, have a detrimental effect on their outcomes.

Table 2 presents the results of the baseline regressions based on equation (1). In Columns (1)–(3) of Panel A we use the full sample of refugee women, with the columns differing in how source country characteristics are incorporated. Specifically, each indicator is included individually in columns (1) and (2), while column (3) includes both indicators jointly. All estimations incorporate an extensive set of

22. This way of analyzing possible interactions between source-country and destination-canton effects is more transparent and easier to interpret than interacting all variables in a single regression.

fixed effects, as discussed in section 3.3.

Our main findings reveal that women from countries with higher LFP ratios exhibit higher employment rates in Switzerland. This positive effect is consistent across all model specifications, underscoring the robustness of the results. Women from countries with higher fertility rates are less likely to be employed compared to those from countries with lower fertility rates.

Columns (4) - (6) analyze a smaller subsample drawn from structural surveys, which permits to control for the level of education. The positive impact of a higher female-to-male LFP ratio and the negative effect of fertility rates remain significant and robust, further confirming the reliability of the findings.

These effects are not only statistically significant but also economically meaningful. Specifically, a one standard deviation increase in the female-to-male labor force participation ratio in the source country is associated with a 4.8 to 6.3 percentage points increase in the probability of being employed in Switzerland. Conversely, a one standard deviation increase in the total fertility rate is associated with a 3.6 to 5.1 percentage points decrease in the probability of being employed in Switzerland.[23]

In Panel B of Table 2, we test the baseline model on male refugees. As expected, the source country indicators generally do not have a significant effect on male refugees.To account for unobserved factors, which may have different impacts on women and men from the same country, we also employ a "gender-gap" specification. This model includes both men and women and involves interacting all variables with a female dummy. In these regressions, we are able to include fixed effects for the source countries, thereby controlling for all remaining gender-related, time-varying factors that could influence the observed outcomes.

Table 3 displays the results for the gender-gap analysis. These results are obtained by estimating equation (2). The findings across all specifications indicate that a higher female-to-male LFP ratio in the source country helps to narrow the existing gender gap in employment among refugees. Specifically, an increase in one standard deviation of the Female/Male LFP ratio is associated with a decrease in the gender employment gap of 3.9–4.5 percentage points.

Conversely, higher fertility rates in the home country tend to widen the gender employment gap among refugees. The effect size ranges from a 3.8–4.7 percentage points increase in the employment gap when the fertility rate increases by one standard deviation.

When using earnings as a measure of labor market integration, we estimate two models. First, a Poisson pseudo-maximum likelihood model is used to account for the zero earnings observed among unemployed refugees. This specification allows us to estimate both the intensive and extensive margins of the indicators' effects on refugees' earnings. Second, to focus on the intensive margin, we add a specification using earnings conditional on employment, regressing log wages of employed refugees on source country characteristics and the control variables. Table 4 displays the results from estimating

23. The mean (and standard deviation) of the female-to-male LFP ratio and the fertility rate in the full sample, which includes both women and men, are 0.525 (0.275) and 3.86 (1.74). For the female subsample, these values are: 0.556 (0.269) and 3.703 (1.75)

equation (1), while Table 5 reports findings from estimating the gap equation (Equation (2)). The results in Panel A shows that the positive impact of the female-to-male labor force participation ratio and the negative impact of the fertility rate are also evident in women's earnings. However, the size of the effect is larger for the LFP ratio. A one standard deviation increase in the ratio is associated with an increase of 20.2–22.1 % in earnings, while a one standard deviation increase in the fertility rate decreases women's earnings by 8.8–10.8 %. The coefficients reported in Panel B, which reflect earnings conditional on employment, are substantially smaller than those discussed earlier. This suggests that the observed effects are primarily driven by the extensive margin—i.e., whether women are employed at all—rather than the intensive margin, which captures variation in earnings among those who are employed.

Lastly, we extend our analysis of source country indicators by incorporating the duration of stay in Switzerland, which is another crucial factor interacting with these indicators. The main regressions estimate the average effect of source country culture on the gender employment gap because this formulation has the advantage that we can control for confounders on the level of the source country that affect men and women.[24] To investigate employment dynamics over the refugees' life cycle, we interact the source country characteristics with years since migration dummies as presented in Figure 4.[25] The positive effect of the LFP ratio on the gender employment gap is persistent in the long run and even strengthens over time. This finding suggests that the longer female refugees reside in Switzerland, the more they benefit from originating from a culture supportive of female labor market participation. The negative effect of the fertility rate on the gender employment gap increases first and reaches its peak up to ten years after arrival. However, this effect is less persistent and close to zero after 10 years. These findings suggest that a favorable initial situation, in terms of the female-to-male LFP ratio, continues to enhance women's employment prospects in Switzerland over the long term, while the negative impact of higher fertility rates from the source country does not have a lasting effect.

Our findings shed new light on gender differences in the labor market integration of refugees and their determinants. Results of the empirical analysis are consistent with results from the literature focusing on migrants. Fernández and Fogli (2009) demonstrate that individuals from countries with high female labor force participation work more hours per week, whereas a higher fertility rate in the source countries significantly reduces work hours. Similarly, Blau et al. (2011) report a positive effect of the source country's relative female LFP on hours worked, with the effect strengthening up to 20 years after arrival, which is consistent with our results. They also find that the negative impact of fertility rates reaches its maximum 10 years after migration. In addition, Bredtmann and Otten (2023) observe a strong positive impact of the female-to-male LFP ratio on employment probability for first-generation immigrants, a finding that corroborates our results. However, they do not find significant effects for

24. We also conduct the analysis by years since migration separately for men and women, estimating equation (1) and interacting the source country indicators with years since migration dummy variables. The detailed results of the regressions for women are given in Table A.6 in the appendix and the table for men is available on request.

25. Detailed results of the regressions are given in Table A.7 in the appendix. Figure 4 illustrates the coefficients and their 95% confidence intervals.

source country fertility rates.

Robustness checks. To assess the robustness of our results, we conduct several checks with different model specifications and subsamples.

In the baseline model, we use current canton interacted with current year fixed effects. This setup captures variation in employment probability from refugees changing cantons. In Tables A.8 and A.9 we replace the current canton with seven greater regions [26]. With this alternative specification, we still find a positive effect of the female-to-male labor force participation ratio and a negative effect of the fertility rate on women's employment probability and the gender gap.

We also test the robustness of our findings by including an additional control variable for geographic distance between the source country and Switzerland (using a measure from Spolaore and Wacziarg (2016)). The results are shown in Table A.10. The inclusion of this additional control variable does not change the overall conclusion of the results, although the coefficients in the alternative specification become smaller in magnitude.

Further sensitivity checks apply the baseline specification to various subsamples. Tables A.11 and A.12 focus on individuals aged 26-59, excluding younger individuals who may still be pursuing education. We also consider the robustness of the results excluding all European countries[27] in Tables A.13 and A.14, finding that the results remain consistent.

4.2 Initial Local Conditions

In this section, we report the results regarding the effects of local conditions in the cantons of arrival on the probability of employment of men and women refugees and their earnings. We exploit the quasi-random allocation of asylum seekers across cantons to identify the effects of the economic and social conditions that refugees experience upon arrival on their economic integration, which we measure by their probability to hold paid employment and their earnigns conditional on being employed.

We use the "gender-gap" version of our estimation equation, where men and women refugees are included in the same regression and all variables are interacted with the female dummy (see equation (3)). This formulation allows us to analyze the impact of time-invariant (or slow-moving) factors, such as natives' attitudes toward gender equality, on the gender gap in employment probabilities or earnings while including fixed effects for the canton of arrival. These fixed effects account for unobserved factors in the arrival cantons that affect the employment of men and women refugees in a similar manner (such as legal and institutional differences at the canton level, or persistent differences in attitudes toward migrants and refugees in general).

In all our regressions, we account for the influence of time-varying and gender-dependent source country factors by including a complete set of fixed effects of the refugee's country of birth, gender and

26. As defined in Table A.3
27. In the baseline, we exclude countries from the European Union.

year of arrival, and interactions between these fixed effects. These fixed effects completely absorb the gender-related indicators of origin country culture and account also for any other time-varying factors that may have different influences on men and women (such as variables measuring economic and social conditions, women's rights or gender differences in the origin country).

First, we consider the effects of local conditions in the arrival cantons without taking interactions with source-country factors into account. Our main results are reported in Table 6, which focuses on the effects of the main canton-level variables measured at the time of arrival: natives' attitudes toward gender equity (as measured by the 1981 popular vote), labor market conditions (cantonal unemployment rate), and co-national networks.

The first three columns show the results for employment probabilities, whereas columns (4) to (6) report the effects on log-earnings conditional on employment. In columns (1) and (4), we use fixed effects for the current canton and the current year but not their interactions. In columns (2) and (5), we add interactions between fixed effects for the current canton of residence and the current year, absorbing all variables that describe the current economic and social conditions in cantons. This allows us to isolate the effects of the *initial conditions* upon arrival from the influence of the subsequent evolution of these conditions. In columns (3) and (6), we further add fixed effects for the cantons of arrival, accounting for unobserved canton-level factors that have a similar effect on the employment (or earnings) of men and women refugees. In all specifications, we also include time-varying control variables measured at the canton level at the time of arrival: population (log), median wage (log), and their interactions with the gender dummy.

The main results of our baseline regressions in Table 6 can be summarized as follows. First, natives' attitudes towards gender equality matter for the gender gap in refugees' employment probabilities and their impact is sizeable. Being assigned to the canton that is at the 90th percentile of attitudes toward gender equality (Vaud) rather than the canton at the 10th percentile (St. Gallen) decreases the gender gap in employment by 2.9 to 3.3 percentage points according to the estimates in columns (1) to (3) of Table 6. Natives' attitudes have an even larger impact on the earnings gap for refugees. For refugees arriving in the canton of Vaud rather than St. Gallen, the gender gap in earnings would be 11.8–12.4 percentage points lower.

Second, co-national networks decrease the gender gap in employment rates but not in earnings. These results indicate that co-national networks have an effect on the extensive margin of employment but do not seem to influence the intensive margin. In our basic regressions, networks have a positive effect on female refugees' employment probabilities and no significant effect on male refugees' employment rates. The magnitude of the effect on women's employment is considerable: arriving in a canton at the 90th percentile of the network distribution rather than in a canton at the 10th percentile increases female employment rates by 9.3–9.4 percentage points.

Third, the state of the labor market, as measured by the cantonal unemployment rates at the moment of arrival, is an important determinant of subsequent labor market integration, both for men

and women. Our results suggest that arriving in a canton with a higher unemployment rate has a greater impact on women than on men refugees, thereby increasing the gender gap. The effect is only significant at the 10 percent level for employment and appears to have a larger (and significant) impact on earnings. Arriving in the canton of Vaud (90th percentile of the long-run distribution of unemployment rates) rather than the canton of Lucerne (10th percentile of this distribution) decreases the gender gap in employment probabilities by 1.8 percentage points and the gender gap in earnings by 6.4–6.9 percentage points.

As the first two indicators of local conditions seem to matter the most for refugees' labor market integration, we analyze their effects in more detail in the following paragraphs.

Attitudes of natives. One might be worried that natives' attitudes toward gender equality, as expressed in the 1981 vote, might be correlated with attitudes toward refugees and political asylum. To disentangle the two dimensions of attitudes, we add the cantonal vote outcomes in a 1996 referendum on a proposed restriction of refugees' rights, capturing natives' attitudes toward refugees and political asylum, to our regression. The results are reported in Table A.15 in the appendix and reveal an interesting pattern. First, we find that the effect of attitudes toward gender equality, as captured by the 1981 vote, remains highly significant both statistically and economically; the effect on earnings is unchanged, whereas the coefficients in the employment regressions increase by one-fourth to one-third relative to the baseline).

Second, focusing on the results for employment (first three columns of Table A.15), it seems that attitudes toward refugees and political asylum also influence the employment probabilities of refugees, but only for men: in columns (1) and (2) of Table A.15, where we don't include fixed effects for the cantons of arrival, the effect of natives' attitudes toward refugees on women's employment probabilities is estimated to be zero, whereas men's employment probabilities are negatively impacted.[28] In contrast, attitudes toward refugees have no significant impact on the extensive margin of employment, as captured by earnings (columns (4) to (6) in Table A.15). These results are reminiscent of the findings by Fossati et al. (2024) that recruiters prefer female over male refugees when rating the employability of job candidates in a vignette survey experiment carried out in 2019. Their results are arguably relevant in the Swiss context, as Fossati et al. (2024) used a panel of recruiters from similar countries (Germany, Austria, and Sweden), and the refugees' countries of origin on their vignettes (Afghanistan, Syria, and Turkey) also rank among the most important source countries in Switzerland.

Networks. In our baseline results, we find that co-national networks have a positive effect on women's labor market participation but not on men's. To pursue this question further, we distinguish, in the

28. Although we don't include fixed effects for the cantons of arrival in columns (1) and (2), we are confident that the estimates of the impact of natives' attitudes on the labor market integration of male refugees are not too far off the mark. First, we include control variables at the level of the canton of arrival (besides the unemployment rate and the network variable, we include the log of the cantonal median wage and the log of cantonal population). Second, the fact that the estimated coefficients in column (3) are very close to those in columns (1) and (2) seems to indicate that we do not miss any important canton-level variable.

definition of the network variable, between co-nationals who are employed and those who are not. An interesting pattern emerges (see Table A.20). For male refugees, the network of working co-nationals has a positive and significant effect on their probability of employment. In contrast, for women refugees, it is the network of *non*working co-nationals that has a significant positive effect.[29]

These strikingly different results for men and women suggest, on the one hand, that different mechanisms are at work for men and women and, on the other hand, that the two main mechanisms discussed in the literature can both be present at the same time. One hypothesis states that ethnic enclaves could hinder economic integration by making it more difficult for newly arrived refugees to learn the local language and familiarize themselves with the host country's social norms. This mechanism seems to be at play for men, but it is only the presence of nonworking co-nationals that reduces male refugees' probabilities of employment. At the same time, the positive impact of professional networks of co-nationals also seems to be at work for men: it is captured by the positive effect of working co-nationals on male refugees' employment probabilities. In contrast, women do not seem to benefit from professional networks, but the influence of nonworking co-nationals increases women's probability of employment. A plausible explanation of the latter result could be that nonworking co-nationals provide childcare services to women refugees, enabling them to take up employment.

Robustness checks. To check the robustness of our results related to natives' attitudes towards gender equality, we perform a few additional regressions. First, we replace the outcome of the 1981 vote on gender equality with the outcome of one of the two other votes: the 1999 vote on paid maternity leave, on the one hand, and the 2022 vote on the increase in women's retirement age, on the other hand. The interaction between the 1999 vote on maternity leave and the gender dummy is only marginally significant for employment, but has an important effect on earnings conditional on employment (see Table A.16 in the Appendix). This result indicates that the 1999 vote does not provide a convincing explanation of the gender gap in refugees' employment on its own. This could be due to the fact that this object also included a social insurance dimension.[30] In contrast, the 2022 vote on women's retirement age has a significant effect on the gender employment gap and on the earnings gap (see Table A.17), but the interpretation of the sign of the effect is rather convoluted and can only be understood in the context of Swiss politics: a positive vote was interpreted by many as a step toward less gender equality (see footnote 15 for a discussion). As a final robustness check, we include all three votes in a single regression. It turns out that the 1981 vote on gender equality is the only vote that significantly influences the gender differences in refugees' labor market participation and earnings (see Table A.18).

Second, we use a different data source as a measure of attitudes towards gender equality. Among all available surveys for Switzerland, the Swiss Household Panel relies on a relatively large sample

29. Furthermore, co-national networks only have a significant effect on employment probabilities, but not on earnings. This confirms our baseline results reported in Table 6 and discussed above.

30. Eugster et al. 2011 show that there are cultural differences in attitudes toward the social welfare state in Switzerland. The fact that voters in French-speaking cantons seem to be more inclined to increase social insurance coverage than German-speaking cantons is clearly visible in the upper panel of Figure A.3, which relates the 1981 vote on gender equality with the 1999 vote on maternity leave.

and includes one relevant item for our purposes. Respondents were asked to react to the affirmation *"Having a job is the best guarantee, for both women and men, of preserving their independence"* by indicating their disagreement/agreement on a scale of 0 to 10. We calculate the average response of Swiss citizens for each canton over the period 2002–2020 (the item was not included in all years of the survey) and use this variable to replace the vote indicator in our regressions. Figure A.4 illustrates the correlation between the attitudes variable and the gender vote and Table A.19 reports the results of our regressions. When using the entire sample of refugees (regressions (1) to (3)), this measure of attitudes has a significant impact on the gender gap in refugee employment and earnings, but the quantitative impact is a bit smaller than for the vote indicator.

Knowledge of the local language. Finally, it is worth mentioning the role of language, as it is an important determinant of labor market integration and is related to the interplay between source countries and cantons of arrival. Throughout our analysis, we use as control a dummy variable indicating a refugee's (potential) knowledge of the language spoken in the canton to which they are assigned. In our baseline estimations (the effects of language knowledge in the baseline are reported in Table A.21 in the appendix), we obtain three results on the impact of language proficiency on employment probabilities and wages. First, we find that refugees coming from a Francophone country have a 10.9–11.5 percentage points higher probability of being employed if they are assigned to a French-speaking canton rather than a comparable German- or Italian-speaking canton. [31] Second, our results show that, conditional on employment, knowledge of the local language increases wages by 14.2–15.3 log points. Our third result is related to the gender dimension of labor market integration: we find no significant difference between men and women in the effect of language proficiency on the probability of employment and earnings.

4.3 Initial Local Conditions and Source Country Characteristics

Before we discuss how local conditions in the arrival canton interact with the origin country indicators, it is worth summarizing the results obtained for these factors separately. Taking the perspective of the origin country, we find that our two indicators of origin country culture significantly influence the gender gap in refugees' labor market participation in Switzerland. There is one crucial difference between the two indicators: the impact of the fertility rate on refugees' employment probabilities vanishes over time, whereas the influence of origin countries' LFP ratios is much more persistent. It seems that the former indicator captures a dimension of origin country culture that is less persistent and assimilates more easily to the cultural norms of the destination country.[32]

31. This result confirms findings by Schmid (2023), who uses a similar setting but limits his sample to English- and French-speaking refugees with an F permit (temporary admission) and a period of five years after arrival. Interestingly, Schmid (2023) results are close to ours: he finds that French-speaking refugees have a 10.5 percentage points higher probability of being employed if they are assigned to a French-speaking canton.

32. Interestingly, fertility rates are also more closely correlated with GDP per capita in the origin country than labor force participation ratios.

Turning now to the point of view of the canton of arrival, we find that local conditions at the moment of arrival matter for the gender gap in refugees' subsequent labor market integration. According to our results, the two most important factors that influence the gender gap are natives' attitudes toward gender equality and networks of (working or not-working) co-nationals. Networks of working co-nationals increase men's employment, thereby increasing the gender gap. In contrast, the presence of nonworking co-nationals increases women refugees' employment rates.

To address the question of how factors specific to the origin country and those related to the canton of arrival interact, we use our two source country indicators to create four groups of origin countries, according to labor force participation ratios (high/low) and fertility rates (high/low).[33] The four country groups are indicated by different colors in Figure 3. Table 7 shows the results of the local-conditions regressions for employment for the four groups of origin countries. More precisely, we report results for regressions that include the widest set of fixed effects (corresponding to columns (3) and (6) in Table 6).

One result stands out in particular. Attitudes towards gender equality in the canton of arrival (as captured by the vote indicator) matter for refugees who come from high-fertility countries, but not for those from other countries. Indeed, the vote indicator has a significant impact on the gender gap in employment probabilities for refugees stemming from high-fertility countries (columns (2) and (4) of Table 7), but there is no significant effect of natives' attitudes for refugees from low-fertility countries (columns (1) and (3) of Table 7). For high-fertility countries, the effect is also quantitatively significant: arriving in the canton with the most favorable attitudes towards gender equality (as opposed to the least) reduces the gender employment gap by 11 percentage points.

In the discussion of our previous results, we had emphasized the fact that the fertility rate in the origin country seems to capture a less persistent dimension of gender norms than the labor force participation ratio. We can now add the finding that for this dimension of gender norms to evolve towards more equality, it is crucial that refugees are assigned to a canton where attitudes towards gender equality are more open. On the other hand, for refugees who come from countries where gender norms are more entrenched (as captured by a low LFP ratio), attitudes in the canton of arrival do not seem to matter.

5 Conclusion

In this paper, we investigate the gender differences in labor market integration among refugees and the factors influencing these disparities. Our analysis focuses on the impact of source country culture and initial local conditions in Switzerland on female refugees' employment probabilities, earnings, and the gender employment gap.

We employ longitudinal data covering the universe of refugees in Switzerland spanning 1998-2018,

33. To create our binary indicators of labor force participation ratios and fertility rates, the delimitation between high and low values of an indicator is set at the mean of the sample.

and augment this with information on source countries' female-to-male LFP ratio and fertility rates. Additionally, we incorporate data on unemployment rates, co-ethnic networks and an indicator of local attitudes in the Swiss cantons, which is derived from vote results related to gender equality.

Our findings reveal that cultural factors from refugees' countries of origin significantly influence the labor market outcomes of female refugees in Switzerland. Specifically, higher female-to-male labor force participation ratios and lower fertility rates in the refugees' origin countries are associated with increased employment probabilities and higher earnings for women in Switzerland. Moreover, these cultural factors narrow the gender gap in employment and earnings. The effect of the female-to-male LFP ratio is persistent over time, while the influence of the fertility rate diminishes after the first decade post-arrival.

Furthermore, our investigation into local conditions highlights the importance of gender attitudes within Swiss cantons. Refugee women placed in the canton with the most progressive attitudes towards gender equality experience a substantially smaller gender employment gap—by at least 6.9 percentage points—compared to those in the most conservative canton. Co-ethnic networks also play a crucial role, particularly those consisting of non-working individuals for women and those consisting of working co-nationals for men, which contribute to reducing the gender gap in employment. Conversely, higher initial unemployment rates widen the gender gap, disproportionately affecting women.

The interaction between source country culture and local conditions further underscores the complexity of gendered labor market integration. We find that refugees from high-fertility countries are especially sensitive to local gender equality attitudes, while those from low fertility and low LFP countries are more affected by unemployment and co-ethnic networks.

An area for a future research agenda that emerges from our study is the role that labor market integration of refugees plays in the diffusion of knowledge, skills and know-how among communities in both the host country and sending economies in the developing world. This appears to be a promising avenue for future research.

References

Adsera, Alicia, and Barry R Chiswick. 2007. "Are there gender and country of origin differences in immigrant labor market outcomes across European destinations?" *Journal of Population Economics* 20:495–526.

Ahrens, Achim, Andreas Beerli, Dominik Hangartner, Selina Kurer, and Michael Siegenthaler. 2023. "The Labor Market Effects of Restricting Refugees' Employment Opportunities."

Aksoy, Cevat Giray, Panu Poutvaara, and Felicitas Schikora. 2023. "First time around: Local conditions and multi-dimensional integration of refugees." *Journal of Urban Economics* 137:103588.

Antecol, Heather. 2000. "An examination of cross-country differences in the gender gap in labor force participation rates." *Labour Economics* 7 (4): 409–426.

Åslund, Olof, and Dan-Olof Rooth. 2007. "Do when and where matter? Initial labour market conditions and immigrant earnings." *The Economic Journal* 117 (518): 422–448.

Bahar, Dani, Andreas Hauptmann, Cem Ozguzel, and Hillel Rapoport. 2024. "Migration and Knowledge Diffusion: The Effect of Returning Refugees on Export Performance in the Former Yugoslavia." *The Review of Economics and Statistics* 106 (2): 287–304.

Bastian, Jacob. 2020. "The rise of working mothers and the 1975 earned income tax credit." *American Economic Journal: Economic Policy* 12 (3): 44–75.

Battisti, Michele, Giovanni Peri, and Agnese Romiti. 2022. "Dynamic effects of co-ethnic networks on immigrants' economic success." *The Economic Journal* 132 (641): 58–88.

Beaman, Lori A. 2012. "Social networks and the dynamics of labour market outcomes: Evidence from refugees resettled in the US." *The Review of Economic Studies* 79 (1): 128–161.

Blau, Francine D, Lawrence M Kahn, and Kerry L Papps. 2011. "Gender, source country characteristics, and labor market assimilation among immigrants." *The Review of Economics and Statistics* 93 (1): 43–58.

Bredtmann, Julia, and Sebastian Otten. 2023. "Culture and the labor supply of female immigrants." *Economic Inquiry* 61 (2): 282–300.

Brell, Courtney, Christian Dustmann, and Ian Preston. 2020. "The labor market integration of refugee migrants in high-income countries." *Journal of Economic Perspectives* 34 (1): 94–121.

Bursztyn, Leonardo, Alessandra L González, and David Yanagizawa-Drott. 2020. "Misperceived social norms: Women working outside the home in Saudi Arabia." *American Economic Review* 110 (10): 2997–3029.

Couttenier, Mathieu, Veronica Petrencu, Dominic Rohner, and Mathias Thoenig. 2019. "The violent legacy of conflict: evidence on asylum seekers, crime, and public policy in Switzerland." *American Economic Review* 109 (12): 4378–4425.

Edin, Per-Anders, Peter Fredriksson, and Olof Åslund. 2003. "Ethnic enclaves and the economic success of immigrants—Evidence from a natural experiment." *The Quarterly Journal of Economics* 118 (1): 329–357.

Erman, Jeylan. 2022. "Cohort, policy, and process: The implications for migrant fertility in West Germany." *Demography* 59 (1): 221–246.

Eugster, Beatrix, Rafael Lalive, Andreas Steinhauer, and Josef Zweimüller. 2011. "The demand for social insurance: does culture matter?" *The Economic Journal* 121 (556): F413–F448.

Fasani, Francesco, Tommaso Frattini, and Luigi Minale. 2022. "(The Struggle for) Refugee integration into the labour market: evidence from Europe." *Journal of Economic Geography* 22 (2): 351–393.

Federal Statistical Office. 2025. *Population by migration status.* Https://www.bfs.admin.ch/bfs/en/home/ [Accessed: April 14, 2025].

Fernández, Raquel. 2011. "Does culture matter?" *Handbook of social economics* 1:481–510.

Fernández, Raquel, and Alessandra Fogli. 2009. "Culture: An empirical investigation of beliefs, work, and fertility." *American Economic Journal: Macroeconomics* 1 (1): 146–177.

Fernández, Raquel, Sahar Parsa, and Martina Viarengo. 2024. "Coming out in America: thirty years of cultural change." *The Journal of Law, Economics, and Organization,* ewae010.

Foged, Mette, Linea Hasager, Giovanni Peri, Jacob Nielsen Arendt, and Iben Bolvig. 2024. "Language training and refugees integration." *The Review of Economics and Statistics* 106 (4): 1157–1166.

Fossati, Flavia, Carlo Knotz, Fabienne Liechti, and Ihssane Otmani. 2024. "The gender employment gap among refugees and the role of employer discrimination: Experimental evidence from the German, Swedish and Austrian labor markets." *International Migration Review* 58 (1): 147–172.

Girsberger, Esther Mirjam, Lena Hassani-Nezhad, Kalaivani Karunanethy, and Rafael Lalive. 2023. "Mothers at work: How mandating a short maternity leave affects work and fertility." *Labour Economics* 84:102364.

Giuliano, Paola. 2020. "Gender and culture." *Oxford Review of Economic Policy* 36 (4): 944–961.

Hayfron, John E. 2002. "Panel estimates of the earnings gap in Norway: do female immigrants experience a double earnings penalty?" *Applied Economics* 34 (11): 1441–1452.

Jaschke, Philipp, Sulin Sardoschau, and Marco Tabellini. 2022. *Scared straight? Threat and assimilation of refugees in Germany.* Technical report. National Bureau of Economic Research.

Lee, Taehoon, Giovanni Peri, and Martina Viarengo. 2022. "The gender aspect of migrants' assimilation in Europe." *Labour Economics* 78:102180.

Martén, Linna, Jens Hainmueller, and Dominik Hangartner. 2019. "Ethnic networks can foster the economic integration of refugees." *Proceedings of the National Academy of Sciences* 116 (33): 16280–16285.

Müller, Tobias, Pia Pannatier, and Martina Viarengo. 2023. "Labor market integration, local conditions and inequalities: Evidence from refugees in Switzerland." *World Development* 170:106288.

Negret, Pablo Jose, Scott C. Atkinson, Bradley K. Woodworth, Marina Corella Tor, James R. Allan, Richard A. Fuller, and Tatsuya Amano. 2022. "List of official and most spoken languages for each country in the world." (April). https://doi.org/10.1371/journal.pone.0267151.s001. https://plos.figshare.com/articles/dataset/List_of_official_and_most_spoken_languages_for_each_country_in_the_world_/19622821.

Nollenberger, Natalia, Núria Rodríguez-Planas, and Almudena Sevilla. 2016. "The math gender gap: The role of culture." *American Economic Review* 106 (5): 257–261.

Piguet, Etienne. 2019. *Asile et réfugiés: repenser la protection.* Presses polytechniques et universitaires romandes.

Sanchez-Dominguez, Maria, and Luis Guirola Abenza. 2021. "The double penalty: How female migrants manage family responsibilities in the Spanish dual labour market." *JFR-Journal of Family Research* 33 (2): 509–540.

Schmid, Lukas. 2023. "The impact of host language proficiency on migrants' employment outcomes." *American Economic Review: Insights* 5 (4): 477–493.

Schoeni, Robert F. 1998. "Labor market assimilation of immigrant women." *ILR Review* 51 (3): 483–504.

Spolaore, Enrico, and Romain Wacziarg. 2016. "Ancestry, language and culture." In *The Palgrave handbook of economics and language,* 174–211. Springer.

UNHCR. 2025a. *Data and Statistics: Global Trends.* Https://www.unhcr.org/global-trends [Accessed: April 14, 2025].

———. 2025b. *Refugee Statistics.* Https://www.unrefugees.org/refugee-facts/statistics/ [Accessed: April 14, 2025].

Tables and Figures

Table 1: Descriptive statistics: Year 2015

	Mean	Std.Dev.	Min	Max	Obs
Panel A: All, main sample					
Female	0.40	0.49	0	1	51530
Age	36.09	9.08	19	59	51530
Age at arrival	28.81	7.63	18	58	51530
Married	0.50	0.50	0	1	51530
Speaks language canton	0.03	0.18	0	1	51530
Years since arrival	7.28	5.15	1	17	51530
Employed	0.47	0.50	0	1	51530
Income (log)	10.09	1.05	3	13	24303
Panel B: All, Structural Survey					
Female	0.41	0.49	0	1	11001
Age	38.00	8.57	19	59	11001
Age at arrival	29.03	7.28	18	57	11001
Married	0.58	0.49	0	1	11001
Speaks language canton	0.04	0.20	0	1	11001
Years since arrival	8.97	5.02	1	17	11001
Tertiary education	0.14	0.34	0	1	11001
Secondary II education	0.22	0.41	0	1	11001
Employed	0.58	0.49	0	1	11001
Income (log)	10.21	1.00	4	13	6392
Panel C: Women, main sample					
Age	37.04	8.91	19	59	20469
Age at arrival	29.28	7.61	18	58	20469
Married	0.57	0.49	0	1	20469
Speaks language canton	0.04	0.19	0	1	20469
Years since arrival	7.76	5.40	1	17	20469
Employed	0.37	0.48	0	1	20469
Income (log)	9.78	1.10	4	13	7511
Panel D: Women, Structural Survey					
Age	38.51	8.41	19	59	4484
Age at arrival	29.19	7.30	18	57	4484
Married	0.63	0.48	0	1	4484
Speaks language canton	0.04	0.20	0	1	4484
Years since arrival	9.32	5.24	1	17	4484
Tertiary education	0.12	0.33	0	1	4484
Secondary II education	0.20	0.40	0	1	4484
Employed	0.45	0.50	0	1	4484
Income (log)	9.84	1.06	4	13	2036

Table 2: Impact of source country characteristics on women's employment

	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A: Subsample Women					
Female/Male LFP Ratio	0.209***		0.178***	0.269***		0.235***
	(0.0607)		(0.0606)	(0.0670)		(0.0716)
Fertility rate		-0.0397**	-0.0323**		-0.0393*	-0.0294**
		(0.0171)	(0.0126)		(0.0199)	(0.0136)
Observations	221201	221201	221201	49365	49365	49365
	Panel B: Subsample Men					
Female/Male LFP Ratio	-0.0204		-0.0434	0.0489		0.0308
	(0.0467)		(0.0547)	(0.0499)		(0.0627)
Fertility rate		-0.0144	-0.0177		-0.0146	-0.0123
		(0.0108)	(0.0127)		(0.0124)	(0.0139)
Sample	Main	Main	Main	Struct. Survey	Struct. Survey	Struct. Survey
Observations	330620	330620	330620	68408	68408	68408
Canton of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Year of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country of birth FE	No	No	No	No	No	No
Education FE	No	No	No	Yes	Yes	Yes

Dependent variable is Employment dummy. Network is defined as log (nb of co-nationals+1). All regressions also include individual controls (Age, Age squared, Married, Speaks local language) and source country GDP per capita (in logs).

Standard errors are clustered at the country of birth level; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 3: Impact of source country characteristics on the gender gap in employment

	(1)	(2)	(3)	(4)	(5)	(6)
Female	-0.0506	0.134	0.0793	-0.417*	-0.259	-0.304
	(0.190)	(0.203)	(0.198)	(0.216)	(0.226)	(0.228)
Female/Male LFP Ratio	-0.0938		-0.0805	-0.0515		-0.0565
	(0.236)		(0.252)	(0.307)		(0.324)
Fertility rate		0.0197*	0.0211		0.0168	0.0186
		(0.0100)	(0.0139)		(0.0181)	(0.0196)
Female X LFP Ratio	0.153***		0.163***	0.132**		0.141***
	(0.0573)		(0.0417)	(0.0644)		(0.0503)
Female X Fertility Rate		-0.0256***	-0.0271***		-0.0209**	-0.0221***
		(0.00674)	(0.00594)		(0.00803)	(0.00714)
Sample	All	All	All	Structural Survey	Structural Survey	Structural Survey
Observations	551829	551829	551829	117801	117801	117801
Canton of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Year of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country of birth FE	Yes	Yes	Yes	Yes	Yes	Yes
Education FE	No	No	No	Yes	Yes	Yes

Dependent variable is Employment dummy. Network is defined as log (nb of co-nationals+1). All regressions also include individual controls (Age, Age squared, Female, Married, Speaks local language) and source country GDP per capita (in logs).

All these variables are interacted with the Female dummy.

Standard errors are clustered at the country of birth level. * p < 0.10, ** p < 0.05, *** p < 0.01

Table 4: Impact of source country characteristics on women's earnings

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Whole sample, Poisson Pseudo-Likelihood Regression						
Female/Male LFP Ratio	0.806***		0.749***	0.865***		0.818***
	(0.205)		(0.171)	(0.183)		(0.157)
Fertility rate		-0.117***	-0.0929***		-0.102**	-0.0765***
		(0.0369)	(0.0167)		(0.0407)	(0.0162)
Observations	221188	221188	221188	49318	49318	49318
Panel B: Subsample employed, Linear Regression						
Female/Male LFP Ratio	0.449***		0.407***	0.439***		0.409***
	(0.156)		(0.120)	(0.154)		(0.123)
Fertility rate		-0.0736***	-0.0652***		-0.0568***	-0.0494***
		(0.0188)	(0.0133)		(0.0172)	(0.0148)
Sample	Women	Women	Women	Women, Struct. Survey	Women, Struct. Survey	Women, Struct. Survey
Observations	85766	85766	85766	22710	22710	22710
Canton of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Year of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country of birth FE	No	No	No	No	No	No
Education FE	No	No	No	Yes	Yes	Yes

Dependent variable is earnings of all individuals in Panel A and the log of earnings of employed individuals in Panel B. Network is defined as log (nb of co-nationals+1).

All regressions also include individual controls (Age, Age squared, Married, Speaks local language) and source country GDP per capita (in logs).

Standard errors are clustered at the country of birth level; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Impact of source country characteristics on the gender gap in earnings

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Whole sample, Poisson Pseudo-Likelihood Regression						
Female	-1.323***	-0.852*	-1.056**	-1.208**	-0.830	-1.019**
	(0.440)	(0.439)	(0.447)	(0.502)	(0.518)	(0.510)
Female/Male LFP Ratio	-1.222		-1.213	-1.020		-1.094
	(0.789)		(0.837)	(0.851)		(0.924)
Fertility rate		0.0833	0.0500		0.0474	0.0161
		(0.102)	(0.104)		(0.0925)	(0.0919)
Female X LFP Ratio	0.438**		0.483***	0.397*		0.428**
	(0.216)		(0.169)	(0.203)		(0.178)
Female X Fertility Rate		-0.0568**	-0.0634***		-0.0369	-0.0425*
		(0.0257)	(0.0215)		(0.0264)	(0.0232)
Observations	551824	551824	551824	117791	117791	117791
Panel B: Subsample employed, Linear Regression						
Female	0.389	0.548*	0.472	0.327	0.425	0.358
	(0.308)	(0.300)	(0.305)	(0.407)	(0.375)	(0.385)
Female/Male LFP Ratio	-1.250		-0.795	-1.438		-1.158
	(0.817)		(0.643)	(0.864)		(0.739)
Fertility rate		0.162**	0.143*		0.127	0.0945
		(0.0797)	(0.0770)		(0.0862)	(0.0793)
Female X LFP Ratio	0.186		0.212*	0.153		0.166
	(0.136)		(0.110)	(0.137)		(0.125)
Female X Fertility Rate		-0.0297	-0.0332*		-0.0108	-0.0141
		(0.0189)	(0.0168)		(0.0200)	(0.0186)
Sample	All	All	All	Struct. Survey	Struct. Survey	Struct. Survey
Observations	272407	272407	272407	69549	69549	69549
Canton of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Year of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country of birth FE	Yes	Yes	Yes	Yes	Yes	Yes
Education FE	No	No	No	Yes	Yes	Yes

Dependent variable is earnings of all individuals in Panel A and the log of earnings of employed individuals in Panel B. Network is defined as log (nb of co-nationals+1).
All regressions also include individual controls (Age, Age squared, Married, Speaks local language) and source country GDP per capita (in logs).
All these variables are interacted with the Female dummy.
Standard errors are clustered at the country of birth level; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6: Impact of local conditions in the canton of arrival on the gender gap in employment and earnings

	(1)	(2)	(3)	(4)	(5)	(6)
Vote gender equality	0.00818	-0.0153		0.00663	-0.0472	
	(0.0523)	(0.0561)		(0.129)	(0.134)	
Unemployment rate	-0.0145***	-0.0109**	-0.0159**	-0.0138	-0.00327	0.00643
	(0.00458)	(0.00480)	(0.00678)	(0.0128)	(0.0134)	(0.0183)
Co-national network (log)	-0.00100	-0.00350	-0.00490	0.0109	0.00681	0.00732
	(0.00429)	(0.00446)	(0.00449)	(0.00984)	(0.00981)	(0.0101)
Female X Vote gender equality	0.145***	0.129***	0.132***	0.515***	0.516***	0.492***
	(0.0460)	(0.0454)	(0.0455)	(0.127)	(0.130)	(0.129)
Female X Unemployment	-0.00726	-0.00815*	-0.00824*	-0.0303**	-0.0329**	-0.0307**
	(0.00466)	(0.00467)	(0.00462)	(0.0145)	(0.0150)	(0.0147)
Female X Co-national network	0.0207***	0.0237***	0.0244***	0.0180	0.0235	0.0221
	(0.00647)	(0.00663)	(0.00654)	(0.0185)	(0.0186)	(0.0186)
Dependent variable	Employm.	Employm.	Employm.	Log(earn.)	Log(earn.)	Log(Earn.)
Sample	All	All	All	Working	Working	Working
Observations	551752	551752	551752	272285	272280	272280
Canton of arrival FE	No	No	Yes	No	No	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	No	Yes	Yes	No	Yes	Yes
Country of birth X Year of arrival X Female FE	Yes	Yes	Yes	Yes	Yes	Yes

Dependent variable is Employment dummy (columns (1) to (3)) or Log Earnings (columns (4) to (6)). All regressions also include individual controls (Age, Age squared, Female, Married, Speaks local language) and time-varying canton-of-arrival controls (log of population, log of real median wage measured at the level of 7 greater regions). All these variables are also interacted with the Female dummy.

Standard errors are clustered at the level Canton of arrival × Year of arrival; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 7: Impact of local conditions in the canton of arrival on the gender gap in employment

	(1)	(2)	(3)	(4)
Unemployment rate	-0.0195**	-0.00303	-0.0329**	-0.0217**
	(0.00927)	(0.0116)	(0.0142)	(0.0102)
Co-national network (log)	-0.00826	0.00323	0.00142	-0.00732
	(0.00779)	(0.00865)	(0.0110)	(0.00758)
Female X Vote gender equality	0.0790	0.263***	0.00887	0.167**
	(0.0709)	(0.0850)	(0.102)	(0.0664)
Female X Unemployment	-0.0199***	-0.0135	0.00310	0.00776
	(0.00700)	(0.00864)	(0.00890)	(0.00698)
Female X Co-national network	0.0323***	0.00641	-0.00521	0.0142
	(0.0103)	(0.0164)	(0.0169)	(0.0118)
Sample	All	All	All	All
Observations	199145	125966	68863	157731
Subsample	Low LFP Low Fertility	Low LFP High Fertility	High LFP Low Fertility	High LFP High Fertility
Individual controls	Yes	Yes	Yes	Yes
Canton of arrival FE	Yes	Yes	Yes	Yes
Current canton X current year FE	Yes	Yes	Yes	Yes
Country of birth X Year of arrival X Female FE	Yes	Yes	Yes	Yes
Education FE	No	No	No	No

Dependent variable is Employment dummy. All regressions also include individual controls (Age, Age squared, Female, Married, Speaks local language) and time-varying canton-of-arrival controls (log of population, log of real median wage measured at the level of 7 greater regions). All these variables are also interacted with the Female dummy.
Standard errors are clustered at the level Canton of arrival × Year of arrival; * p < 0.10, ** p < 0.05, *** p < 0.01

Figure 1: Employment rate by YSM and gender

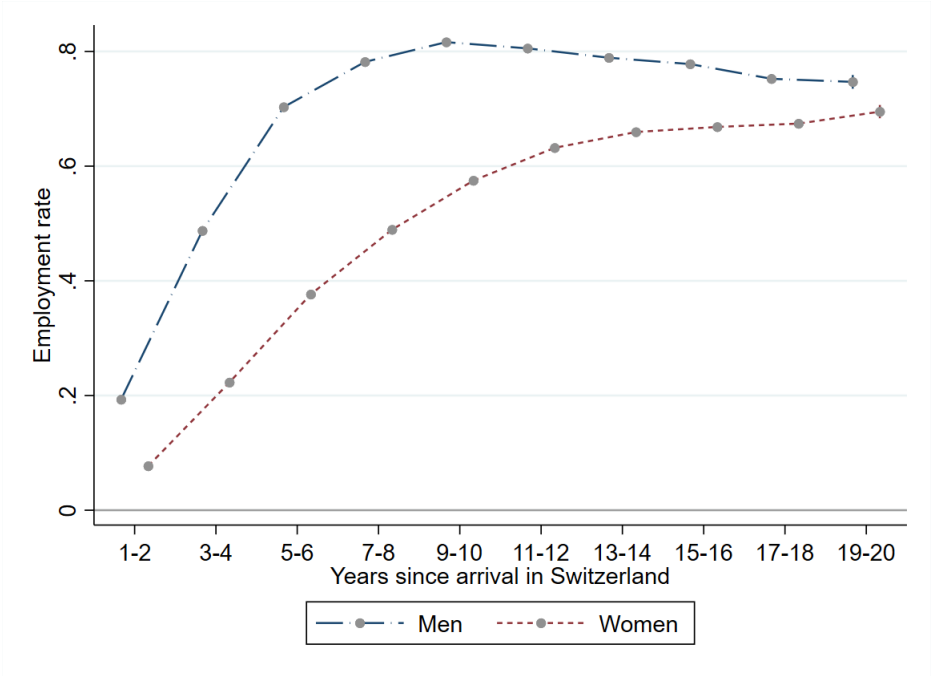


Figure 2: Earnings by YSM and gender: All refugees and only employed refugees

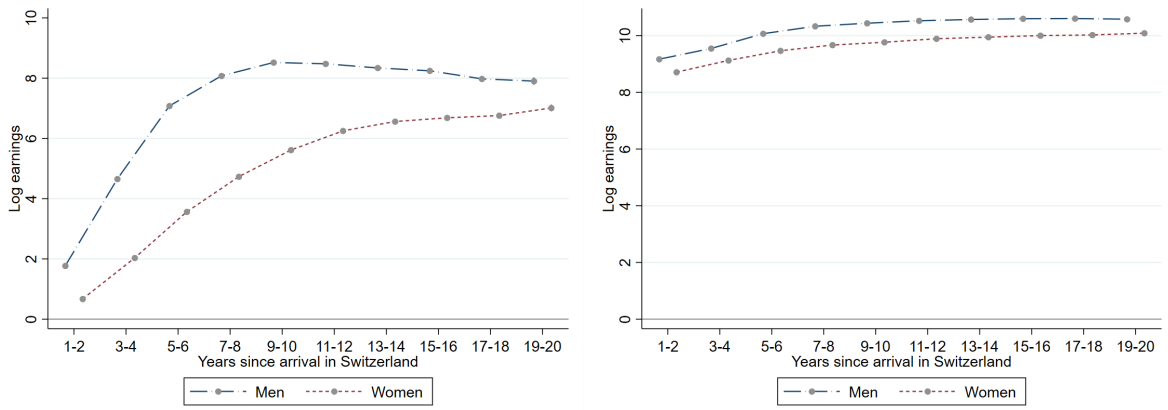


Figure 3: Grouping of countries by the two source country characteristics

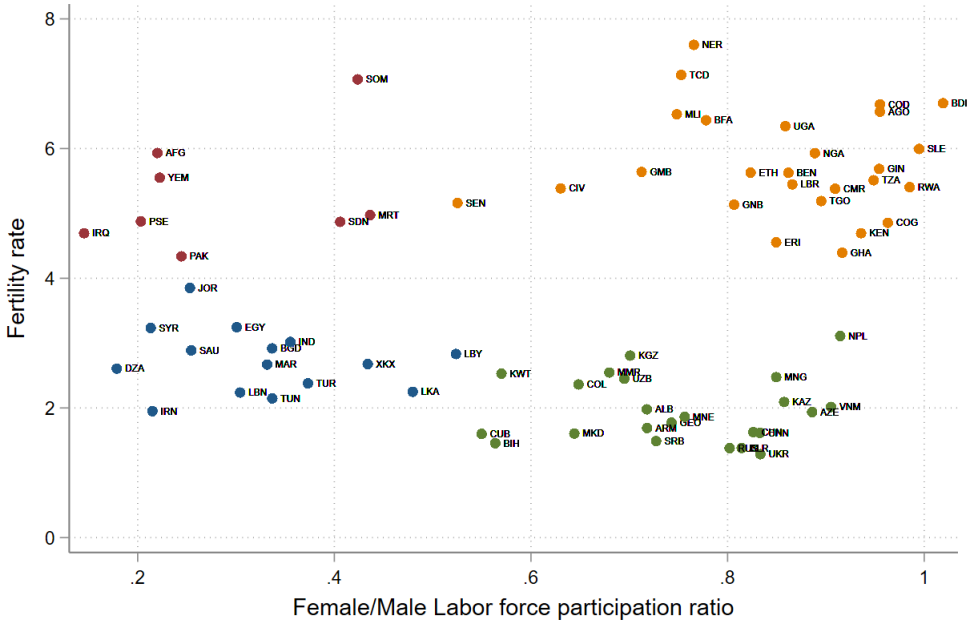
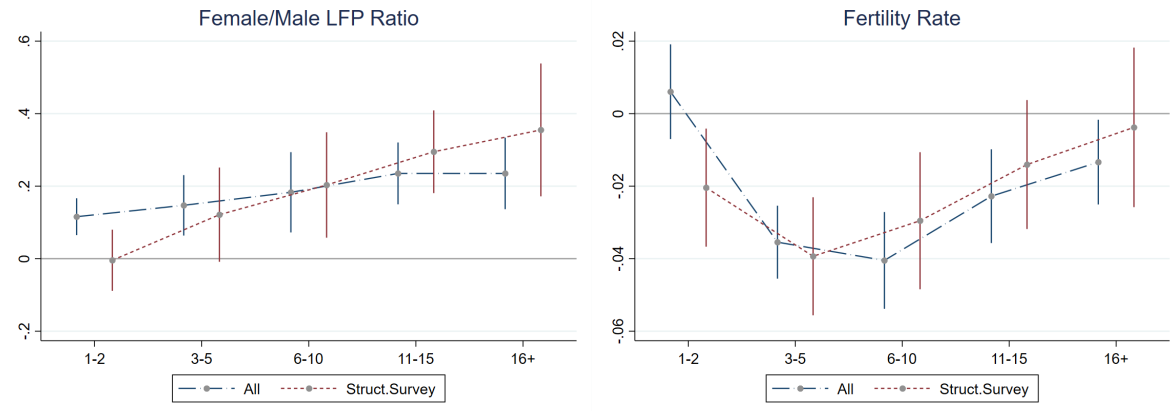


Figure 4: Impact of source country characteristics on the gender gap by YSM



Appendix

Table A.1: Countries in the sample

Country of birth	Frequency (in %)	Observations	Individuals
Afghanistan	7.276711	40155	8451
Albanie	.1263072	697	119
Algérie	.5550633	3063	447
Angola	1.504452	8302	764
Arabie saoudite	.0822719	454	103
Arménie	.2781659	1535	246
Azerbaïdjan	.1592885	879	135
Bangladesh	.2863206	1580	188
Bélarus	.0643315	355	65
Bénin	.0581702	321	51
Bosnie et Herzeg	2.312492	12761	1132
Burkina Faso	.0710365	392	49
Burundi	.142073	784	98
Cameroun	.5469086	3018	356
Chine	3.957929	21841	3394
Colombie	.4916378	2713	257
Congo (Brazzaville)	.293388	1619	148
Congo (Kinshasa)	2.101557	11597	1273
Côte d'Ivoire	.411903	2273	356
Cuba	.0797348	440	48
Egypte	.1226829	677	143
Erythrée	17.19826	94905	18081
Ethiopie	3.482057	19215	3062
Gambie	.1080045	596	207
Géorgie	.2170962	1198	282
Ghana	.0382365	211	65
Guinée	.28922	1596	345
Guinée-Bissau	.0844464	466	170

Continued on next page

Table A.1: Countries in the sample (Continued)

Country of birth	Frequency (in %)	Observations	Individuals
Inde	.1165216	643	84
Irak	8.152163	44986	5396
Iran	3.517756	19412	3169
Jordanie	.0594387	328	42
Kazakhstan	.057989	320	41
Kenya	.0585326	323	49
Kirghizistan	.0380553	210	36
Kosovo	3.707489	20459	1998
Koweït	.0398674	220	33
Liban	.1634564	902	133
Libéria	.093326	515	83
Libye	.5316864	2934	359
Macédoine	.3655118	2017	297
Mali	.0599823	331	139
Maroc	.1667183	920	213
Mauritanie	.0164906	91	41
Mongolie	.1585636	875	195
Monténégro	.100031	552	59
Myanmar	.067231	371	51
Népal	.0927824	512	102
Niger	.0494718	273	48
Nigéria	.4492334	2479	587
Ouganda	.0567205	313	59
Ouzbékistan	.0779227	430	53
Pakistan	.5204511	2872	582
Palestine	.0587138	324	42
Russie	.8682037	4791	634
Rwanda	.1900951	1049	89
Sénégal	.048747	269	74

Continued on next page

Table A.1: Countries in the sample (Continued)

Country of birth	**Frequency (in %)**	**Observations**	**Individuals**
Serbie	1.968001	10860	1091
Sierra Leone	.0991249	547	87
Somalie	5.412546	29868	4378
Soudan	1.017888	5617	1189
Sri Lanka	9.525596	52565	7034
Syrie	7.283597	40193	9240
Tanzanie	.0293569	162	33
Tchad	.0511028	282	37
Tibet	.6661484	3676	431
Togo	1.078957	5954	578
Tunisie	1.077508	5946	604
Turquie	8.893516	49077	4921
Ukraine	.1232266	680	152
Vietnam	.1759603	971	64
Yémen	.3745726	2067	236
Total	100	551829	84798

Table A.2: Descriptive Statistics: Source Country Indicators

	Mean	SD	Min	Max
All countries (71 countries)				
Fertility rate, total (births per woman)	3.82	1.80	1.08	7.70
Ratio of female to male labor force participation rate	0.65	0.26	0.09	1.02
Female LFP	0.46	0.20	0.06	0.87
Male LFP	0.72	0.08	0.47	0.90
East Asia & Pacific (4 countries)				
Fertility rate, total (births per woman)	2.15	0.43	1.59	2.93
Ratio of female to male labor force participation rate	0.81	0.09	0.62	0.92
Female LFP	0.62	0.08	0.48	0.73
Male LFP	0.76	0.07	0.63	0.83
Europe & Central Asia (16 countries)				
Fertility rate, total (births per woman)	1.90	0.49	1.08	3.30
Ratio of female to male labor force participation rate	0.70	0.15	0.30	0.91
Female LFP	0.50	0.11	0.23	0.73
Male LFP	0.69	0.06	0.56	0.84
Latin America & Caribbean (2 countries)				
Fertility rate, total (births per woman)	1.89	0.34	1.57	2.68
Ratio of female to male labor force participation rate	0.63	0.05	0.52	0.71
Female LFP	0.47	0.08	0.35	0.58
Male LFP	0.75	0.06	0.68	0.83
Middle East & North Africa (14 countries)				
Fertility rate, total (births per woman)	3.16	1.04	1.81	6.74
Ratio of female to male labor force participation rate	0.29	0.12	0.09	0.58
Female LFP	0.21	0.10	0.06	0.50
Male LFP	0.71	0.06	0.58	0.87
South Asia (6 countries)				
Fertility rate, total (births per woman)	3.49	1.51	1.92	7.61
Ratio of female to male labor force participation rate	0.43	0.24	0.19	0.97
Female LFP	0.26	0.07	0.15	0.41
Male LFP	0.76	0.09	0.54	0.88
Sub-Saharan Africa (29 countries)				
Fertility rate, total (births per woman)	5.58	0.88	3.49	7.70
Ratio of female to male labor force participation rate	0.81	0.17	0.39	1.02
Female LFP	0.59	0.16	0.21	0.87
Male LFP	0.74	0.10	0.47	0.90

Table A.3: Descriptive Statistics: Initial Local Conditions

	Mean	SD	Min	Max
Leman region (GE, VD, VS)				
Vote Gender Equality (% Yes), 1981	66.73	16.17	46.10	85.20
Unemployment rate (%)	4.57	1.22	2.10	7.37
Network (log)	5.04	1.22	1.82	6.91
Mittelland region (BE, SO, FR, NE, JU)				
Vote Gender Equality (% Yes), 1981	65.22	6.38	57.60	76.50
Unemployment rate (%)	3.18	1.14	1.20	6.19
Network (log)	4.42	1.45	1.04	7.44
North-east Switzerland (AG, BL, BS)				
Vote Gender Equality (% Yes), 1981	64.37	8.89	52.10	72.40
Unemployment rate (%)	2.93	0.74	1.20	4.58
Network (log)	5.04	1.06	2.18	7.08
Zurich (ZH)				
Vote Gender Equality (% Yes), 1981	63.00	0.00	63.00	63.00
Unemployment rate (%)	3.25	0.77	1.70	4.50
Network (log)	6.20	1.20	3.50	7.82
Central Switzerland (LU, OW, NW, SZ, UR, ZG)				
Vote Gender Equality (% Yes), 1981	48.63	6.45	37.80	58.00
Unemployment rate (%)	1.59	0.71	0.40	3.61
Network (log)	3.68	1.18	0.79	6.48
Oriental Switzerland (SH, AR, AI, SG, GR, GL, TG)				
Vote Gender Equality (% Yes), 1981	46.41	8.38	31.80	58.30
Unemployment rate (%)	1.98	0.74	0.30	4.06
Network (log)	3.76	1.22	0.89	6.60
Ticino (TI)				
Vote Gender Equality (% Yes), 1981	66.30	0.00	66.30	66.30
Unemployment rate (%)	4.21	0.81	2.60	6.34
Network (log)	4.35	1.12	2.30	5.88

Table A.4: Indicator list: Source Countries

Indicator list: Source Countries			
Indicator name	Definition	Source	Years available
Female-to-Male LFP Ratio	Ratio of female to male labor force participation rate (%) (modeled ILO estimate), Ratio of female to male labor force participation rate is calculated by dividing female labor force participation rate by male labor force participation rate and multiplying by 100.	ILO	1998-2018
Fertility Rate	Fertility rate, total (births per woman). Total fertility rate represents the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with age-specific fertility rates of the specified year.	World Development Indicators	1998-2018

Table A.5: Indicator list: Local Conditions Cantons

Indicator list: Local Conditions Cantons			
Indicator name	Definition	Source	Years available
Vote on gender equality	The share (in %) of votes in favor of the the referendum: Volksinitiative «Gleiche Rechte für Mann und Frau», by canton	Federal Statistical Office Switzerland	1981
Unemployment rate	At the cantonal level. This measure of the unemployment rate covers the universe of all unemployed individuals who are registered at a regional employment office. As it includes only permanent residents, asylum seekers (permit N) and temporarily admitted refugees (permit F) are not taken into account in this measure of the unemployment rate.	State Secretariat of Economic Affairs (SECO)	1998-2018
Co-ethnic networks	Number of co-nationals residing in the canton of arrival at the time of arrival. We take the logarithm of the number (1 + the number of co-nationals). In addition, we are not counting the individual itself to its own network.	Calculated from our dataset	1998-2018

Table A.6: Impact of source country characteristics on women's employment by YSM

	(1)	(2)	(3)	(4)	(5)	(6)
LFP Ratio X 1-2 years	0.0518*		0.0204	0.0736**		0.0363
	(0.0270)		(0.0268)	(0.0328)		(0.0438)
LFP Ratio X 3-5 years	0.160**		0.138*	0.191**		0.166*
	(0.0706)		(0.0704)	(0.0878)		(0.0892)
LFP Ratio X 6-10 years	0.283***		0.249***	0.295***		0.254***
	(0.0808)		(0.0799)	(0.0796)		(0.0886)
LFP Ratio X 11-15 years	0.346***		0.303***	0.396***		0.349***
	(0.0642)		(0.0627)	(0.0599)		(0.0660)
LFP Ratio X 16+ years	0.377***		0.321***	0.457***		0.401***
	(0.0700)		(0.0693)	(0.0988)		(0.0880)
Fertility Rate X 1-2 years		-0.0398***	-0.0243**		-0.0478**	-0.0294**
		(0.0145)	(0.0111)		(0.0180)	(0.0141)
Fertility Rate X 3-5 years		-0.0560***	-0.0444***		-0.0618***	-0.0477***
		(0.0176)	(0.0135)		(0.0204)	(0.0151)
Fertility Rate X 6-10 years		-0.0481***	-0.0403***		-0.0473**	-0.0366***
		(0.0179)	(0.0120)		(0.0200)	(0.0127)
Fertility Rate X 11-15 years		-0.0287	-0.0245**		-0.0278	-0.0221*
		(0.0178)	(0.0112)		(0.0209)	(0.0125)
Fertility Rate X 16+ years		-0.0194	-0.0148		-0.0177	-0.0125
		(0.0190)	(0.0135)		(0.0218)	(0.0153)
Sample	Women	Women	Women	Women, Struct. Survey	Women, Struct. Survey	Women, Struct. Survey
Observations	221201	221201	221201	49365	49365	49365
Canton of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Year of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country of birth FE	No	No	No	No	No	No
Education FE	No	No	No	Yes	Yes	Yes

Dependent variable is Employment dummy. Network is defined as log (nb of co-nationals+1). All regressions also include individual controls (Age, Age squared, Female, Married, Speaks local language) and source country GDP per capita (in logs).

Standard errors are clustered at the country of birth level. * p < 0.10, ** p < 0.05, *** p < 0.01

Table A.7: Impact of source country characteristics on the gender gap in employment by YSM

	(1)	(2)	(3)	(4)	(5)	(6)
Female/Male LFP Ratio	-0.0937		-0.0648	0.0851*		0.0525
	(0.234)		(0.244)	(0.0457)		(0.0584)
Female	-0.184	-0.0927	-0.138	-2.017	-0.146	-1.835*
	(0.127)	(0.138)	(0.136)	(1.623)	(1.288)	(1.019)
Female X LFP Ratio X 1-2 years	0.259***		0.116***	-0.0166		-0.00440
	(0.0516)		(0.0255)	(0.0546)		(0.0414)
Female X LFP Ratio X 3-5 years	0.0773		0.147***	0.0907		0.121*
	(0.0522)		(0.0418)	(0.0945)		(0.0638)
Female X LFP Ratio X 6-10 years	0.0814		0.183***	0.183*		0.203***
	(0.0696)		(0.0555)	(0.0941)		(0.0714)
Female X LFP Ratio X 11-15 years	0.225***		0.235***	0.287***		0.295***
	(0.0486)		(0.0428)	(0.0640)		(0.0560)
Female X LFP Ratio X 16+ years	0.270***		0.235***	0.360***		0.355***
	(0.0502)		(0.0495)	(0.0928)		(0.0899)
Fertility rate		0.0267***	0.0348**		-0.0193	-0.0108
		(0.00973)	(0.0134)		(0.0149)	(0.0137)
Female X Fertility Rate X 1-2 years		0.000702	0.00605		-0.0249***	-0.0204**
		(0.00523)	(0.00655)		(0.00592)	(0.00799)
Female X Fertility Rate X 3-5 years		-0.0367***	-0.0355***		-0.0391***	-0.0393***
		(0.00552)	(0.00505)		(0.00872)	(0.00799)
Female X Fertility Rate X 6-10 years		-0.0376***	-0.0405***		-0.0250**	-0.0295***
		(0.00749)	(0.00670)		(0.0100)	(0.00928)
Female X Fertility Rate X 11-15 years		-0.0151*	-0.0228***		-0.00466	-0.0140
		(0.00768)	(0.00648)		(0.00863)	(0.00873)
Female X Fertility Rate X 16+ years		-0.00708	-0.0134**		0.00544	-0.00379
		(0.00773)	(0.00586)		(0.0101)	(0.0108)
Sample	All	All	All	Struct. Survey	Struct. Survey	Struct. Survey
Observations	551829	551829	551829	117801	117801	117801
Canton of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Year of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country of birth FE	Yes	Yes	Yes	Yes	Yes	Yes
Education FE	No	No	No	Yes	Yes	Yes

Dependent variable is Employment dummy. Network is defined as log (nb of co-nationals+1). All regressions also include individual controls (Age, Age squared, Female, Married, Speaks local language) and source country GDP per capita (in logs).

All these variables are interacted with the Female dummy.

Standard errors are clustered at the country of birth level. * p < 0.10, ** p < 0.05, *** p < 0.01

Table A.8: Robustness: Greater Region FE

	(1)	(2)	(3)	(4)	(5)	(6)
Female/Male LFP Ratio	0.211***		0.180***	0.269***		0.235***
	(0.0611)		(0.0610)	(0.0660)		(0.0710)
Fertility rate		-0.0397**	-0.0323**		-0.0395*	-0.0297**
		(0.0171)	(0.0126)		(0.0197)	(0.0134)
Sample	Women	Women	Women	Women, Struct. Survey	Women, Struct. Survey	Women, Struct. Survey
Observations	221206	221206	221206	49375	49375	49375
Canton of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Year of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Greater region X current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country of birth FE	No	No	No	No	No	No
Education FE	No	No	No	Yes	Yes	Yes

Dependent variable is Employment dummy. Network is defined as log (nb of co-nationals+1). All regressions also include individual controls (Age, Age squared, Married, Speaks local language) and source country GDP per capita (in logs).

Standard errors are clustered at the country of birth level. * p < 0.10, ** p < 0.05, *** p < 0.01

Table A.9: Robustness: Greater Region FE, Gap

	(1)	(2)	(3)	(4)	(5)	(6)
Female	-0.0477	0.137	0.0820	-0.418*	-0.260	-0.305
	(0.190)	(0.203)	(0.198)	(0.217)	(0.227)	(0.229)
Female/Male LFP Ratio	-0.0945		-0.0815	-0.0578		-0.0625
	(0.236)		(0.253)	(0.303)		(0.320)
Fertility rate		0.0196*	0.0210		0.0170	0.0186
		(0.0101)	(0.0141)		(0.0180)	(0.0194)
Female X LFP Ratio	0.153***		0.163***	0.132**		0.141***
	(0.0573)		(0.0417)	(0.0634)		(0.0494)
Female X Fertility Rate		-0.0256***	-0.0270***		-0.0210**	-0.0222***
		(0.00671)	(0.00592)		(0.00800)	(0.00711)
Sample	All	All	All	Struct. Survey	Struct. Survey	Struct. Survey
Observations	551829	551829	551829	117802	117802	117802
Canton of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Year of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Greater Region X current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country of birth FE	Yes	Yes	Yes	Yes	Yes	Yes
Education FE	No	No	No	Yes	Yes	Yes

Dependent variable is Employment dummy. Network is defined as log (nb of co-nationals+1). All regressions also include individual controls (Age, Age squared, Female, Married, Speaks local language) and source country GDP per capita (in logs).

All these variables are interacted with the Female dummy.

Standard errors are clustered at the country of birth level. * p < 0.10, ** p < 0.05, *** p < 0.01

Table A.10: Robustness: Distance controls

	(1)	(2)	(3)	(4)	(5)	(6)
Female/Male LFP Ratio	0.182***		0.136**	0.244***		0.195***
	(0.0659)		(0.0545)	(0.0736)		(0.0657)
Fertility rate		-0.0466***	-0.0402***		-0.0455**	-0.0364***
		(0.0147)	(0.0108)		(0.0174)	(0.0114)
Geographic distance	0.0781	0.106***	0.0902***	0.0768	0.105**	0.0869**
	(0.0477)	(0.0354)	(0.0326)	(0.0510)	(0.0394)	(0.0342)
Sample	Women	Women	Women	Women, Struct. Survey	Women, Struct. Survey	Women, Struct. Survey
Observations	196347	196347	196347	42639	42639	42639
Canton of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Year of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country of birth FE	No	No	No	No	No	No
Education FE	No	No	No	Yes	Yes	Yes

Dependent variable is Employment dummy. Network is defined as log (nb of co-nationals+1). All regressions also include individual controls (Age, Age squared, Married, Speaks local language) and source country GDP per capita (in logs).

Standard errors are clustered at the country of birth level. * p < 0.10, ** p < 0.05, *** p < 0.01

Table A.11: Robustness: Age range 26-59

	(1)	(2)	(3)	(4)	(5)	(6)
Female/Male LFP Ratio	0.229***		0.198***	0.279***		0.245***
	(0.0618)		(0.0623)	(0.0673)		(0.0715)
Fertility rate		-0.0397**	-0.0318**		-0.0389*	-0.0289**
		(0.0178)	(0.0126)		(0.0199)	(0.0132)
Sample	Women	Women	Women	Women, Struct. Survey	Women, Struct. Survey	Women, Struct. Survey
Observations	197367	197367	197367	45955	45955	45955
Canton of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Year of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country of birth FE	No	No	No	No	No	No
Education FE	No	No	No	Yes	Yes	Yes

Dependent variable is Employment dummy. Network is defined as log (nb of co-nationals+1). All regressions also include individual controls (Age, Age squared, Married, Speaks local language) and source country GDP per capita (in logs).

Standard errors are clustered at the country of birth level. * p < 0.10, ** p < 0.05, *** p < 0.01

Table A.12: Robustness Gap: Age range 26-59

	(1)	(2)	(3)	(4)	(5)	(6)
Female	-0.734***	-0.541***	-0.591***	-1.017***	-0.856***	-0.901***
	(0.199)	(0.203)	(0.202)	(0.231)	(0.230)	(0.235)
Female/Male LFP Ratio	-0.0830		-0.104	-0.0761		-0.0626
	(0.229)		(0.244)	(0.307)		(0.322)
Fertility rate		0.0155	0.0151		0.0243	0.0246
		(0.0128)	(0.0159)		(0.0207)	(0.0219)
Female X LFP Ratio	0.134**		0.145***	0.118*		0.127**
	(0.0657)		(0.0490)	(0.0685)		(0.0554)
Female X Fertility Rate		-0.0261***	-0.0275***		-0.0201**	-0.0213***
		(0.00715)	(0.00656)		(0.00842)	(0.00769)
Sample	All	All	All	Struct. Survey	Struct. Survey	Struct. Survey
Observations	471816	471816	471816	108200	108200	108200
Canton of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Year of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country of birth FE	Yes	Yes	Yes	Yes	Yes	Yes
Education FE	No	No	No	Yes	Yes	Yes

Dependent variable is Employment dummy. Network is defined as log (nb of co-nationals+1). All regressions also include individual controls (Age, Age squared, Female, Married, Speaks local language) and source country GDP per capita (in logs).

All these variables are interacted with the Female dummy.

Standard errors are clustered at the country of birth level. * p < 0.10, ** p < 0.05, *** p < 0.01

Table A.13: Robustness: Without European countries

	(1)	(2)	(3)	(4)	(5)	(6)
Female/Male LFP Ratio	0.227***		0.204***	0.284***		0.259***
	(0.0654)		(0.0648)	(0.0733)		(0.0760)
Fertility rate		-0.0395**	-0.0323**		-0.0372	-0.0280*
		(0.0189)	(0.0130)		(0.0219)	(0.0140)
Sample	Women	Women	Women	Women, Struct. Survey	Women, Struct. Survey	Women, Struct. Survey
Observations	170472	170472	170472	36187	36187	36187
Canton of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Year of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country of birth FE	No	No	No	No	No	No
Education FE	No	No	No	Yes	Yes	Yes

Dependent variable is Employment dummy. Network is defined as log (nb of co-nationals+1). All regressions also include individual controls (Age, Age squared, Married, Speaks local language) and source country GDP per capita (in logs).

Standard errors are clustered at the country of birth level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.14: Robustness: Without European countries, Gap

	(1)	(2)	(3)	(4)	(5)	(6)
Female	0.114	0.272	0.226	-0.214	-0.102	-0.135
	(0.183)	(0.205)	(0.193)	(0.222)	(0.245)	(0.241)
Female/Male LFP Ratio	-0.167		-0.184	-0.0778		-0.0651
	(0.283)		(0.305)	(0.372)		(0.399)
Fertility rate		0.0200**	0.0190		0.0199	0.0226
		(0.00974)	(0.0139)		(0.0148)	(0.0162)
Female X LFP Ratio	0.164***		0.174***	0.144**		0.151***
	(0.0516)		(0.0433)	(0.0558)		(0.0509)
Female X Fertility Rate		-0.0225**	-0.0246***		-0.0144	-0.0161*
		(0.00854)	(0.00678)		(0.0104)	(0.00869)
Sample	All	All	All	Struct. Survey	Struct. Survey	Struct. Survey
Observations	449571	449571	449571	90235	90235	90235
Canton of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Year of arrival FE	Yes	Yes	Yes	Yes	Yes	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country of birth FE	Yes	Yes	Yes	Yes	Yes	Yes
Education FE	No	No	No	Yes	Yes	Yes

Dependent variable is Employment dummy. Network is defined as log (nb of co-nationals+1). All regressions also include individual controls (Age, Age squared, Female, Married, Speaks local language) and source country GDP per capita (in logs).

All these variables are interacted with the Female dummy.

Standard errors are clustered at the country of birth level. * p < 0.10, ** p < 0.05, *** p < 0.01

Table A.15: Impact of local conditions in the canton of arrival on the gender gap in employment and earnings

	(1)	(2)	(3)	(4)	(5)	(6)
Vote gender equality	-0.0577	-0.0806		0.0423	0.00830	
	(0.0652)	(0.0681)		(0.180)	(0.186)	
Vote migration	-0.151*	-0.151*		0.0750	0.118	
	(0.0866)	(0.0895)		(0.261)	(0.264)	
Unemployment rate	-0.0163***	-0.0128***	-0.0173**	-0.0134	-0.00261	0.00660
	(0.00456)	(0.00478)	(0.00675)	(0.0129)	(0.0134)	(0.0183)
Co-national network (log)	-0.000512	-0.00297	-0.00449	0.0108	0.00663	0.00726
	(0.00432)	(0.00450)	(0.00451)	(0.00992)	(0.00988)	(0.0102)
Female X Vote gender equality	0.201***	0.189***	0.187***	0.515***	0.512***	0.482***
	(0.0523)	(0.0522)	(0.0522)	(0.159)	(0.165)	(0.163)
Female X Vote migration	0.150**	0.159**	0.149**	0.000268	-0.00877	-0.0257
	(0.0676)	(0.0674)	(0.0674)	(0.237)	(0.239)	(0.239)
Female X Unemployment	-0.00368	-0.00437	-0.00465	-0.0303**	-0.0331**	-0.0313**
	(0.00494)	(0.00487)	(0.00485)	(0.0154)	(0.0156)	(0.0155)
Female X Co-national network	0.0198***	0.0227***	0.0235***	0.0180	0.0236	0.0223
	(0.00647)	(0.00662)	(0.00654)	(0.0184)	(0.0186)	(0.0185)
Dependent variable	Employm.	Employm.	Employm.	Log(Earn.)	Log(Earn.)	Log(Earn.)
Sample	All	All	All	Working	Working	Working
Observations	551752	551752	551752	272285	272280	272280
Canton of arrival FE	No	No	Yes	No	No	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	No	Yes	Yes	No	Yes	Yes
Country of birth X Year of arrival X Female FE	Yes	Yes	Yes	Yes	Yes	Yes

Dependent variable is Employment dummy (columns (1) to (3)) or Log Earnings (columns (4) to (6)). All regressions also include individual controls (Age, Age squared, Female, Married, Speaks local language) and time-varying canton-of-arrival controls (log of population, log of real median wage measured at the level of 7 greater regions). All these variables are also interacted with the Female dummy.

Standard errors are clustered at the level Canton of arrival × Year of arrival; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.16: Impact of local conditions in the canton of arrival on the gender gap in employment and earnings

	(1)	(2)	(3)	(4)	(5)	(6)
Vote maternity leave	0.0159	-0.00428		-0.00461	-0.104	
	(0.0442)	(0.0475)		(0.121)	(0.122)	
Unemployment rate	-0.0150***	-0.0111*	-0.0161**	-0.0122	0.00338	0.00738
	(0.00539)	(0.00569)	(0.00694)	(0.0154)	(0.0158)	(0.0191)
Co-national network (log)	-0.00191	-0.00439	-0.00598	0.00856	0.00396	0.00447
	(0.00428)	(0.00444)	(0.00448)	(0.0101)	(0.0101)	(0.0103)
Female X Vote maternity leave	0.0804*	0.0674	0.0727*	0.333**	0.334**	0.332**
	(0.0421)	(0.0416)	(0.0416)	(0.132)	(0.131)	(0.129)
Female X Unemployment	-0.00750	-0.00780	-0.00839	-0.0358*	-0.0386*	-0.0375*
	(0.00641)	(0.00630)	(0.00631)	(0.0206)	(0.0205)	(0.0203)
Female X Co-national network	0.0237***	0.0263***	0.0271***	0.0278	0.0335*	0.0315*
	(0.00642)	(0.00655)	(0.00646)	(0.0188)	(0.0190)	(0.0189)
Dependent variable	Employm.	Employm.	Employm.	Log(earn.)	Log(earn.)	Log(Earn.)
Sample	All	All	All	Working	Working	Working
Observations	551752	551752	551752	272285	272280	272280
Canton of arrival FE	No	No	Yes	No	No	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	No	Yes	Yes	No	Yes	Yes
Country of birth X Year of arrival X Female FE	Yes	Yes	Yes	Yes	Yes	Yes

Dependent variable is Employment dummy (columns (1) to (3)) or Log Earnings (columns (4) to (6)). All regressions also include individual controls (Age, Age squared, Female, Married, Speaks local language) and time-varying canton-of-arrival controls (log of population, log of real median wage measured at the level of 7 greater regions). All these variables are also interacted with the Female dummy.

Standard errors are clustered at the level Canton of arrival × Year of arrival; * p < 0.10, ** p < 0.05, *** p < 0.01

Table A.17: Impact of local conditions in the canton of arrival on the gender gap in employment and earnings

	(1)	(2)	(3)	(4)	(5)	(6)
Vote retirement age	-0.0187	-0.00165		-0.0202	0.116	
	(0.0729)	(0.0763)		(0.189)	(0.190)	
Unemployment rate	-0.0147***	-0.0117**	-0.0168**	-0.0152	-0.00257	0.00184
	(0.00457)	(0.00480)	(0.00666)	(0.0129)	(0.0132)	(0.0186)
Co-national network (log)	-0.00193	-0.00434	-0.00590	0.00897	0.00471	0.00514
	(0.00428)	(0.00445)	(0.00449)	(0.00998)	(0.00999)	(0.0103)
Female X Vote retirement age	-0.144**	-0.122**	-0.131**	-0.432**	-0.438**	-0.412**
	(0.0621)	(0.0618)	(0.0618)	(0.194)	(0.193)	(0.190)
Female X Unemployment	-0.00556	-0.00623	-0.00666	-0.0187	-0.0216	-0.0195
	(0.00491)	(0.00487)	(0.00483)	(0.0159)	(0.0160)	(0.0157)
Female X Co-national network	0.0233***	0.0260***	0.0267***	0.0254	0.0310*	0.0291
	(0.00644)	(0.00657)	(0.00648)	(0.0186)	(0.0187)	(0.0187)
Dependent variable	Employm.	Employm.	Employm.	Log(earn.)	Log(earn.)	Log(Earn.)
Sample	All	All	All	Working	Working	Working
Observations	551752	551752	551752	272285	272280	272280
Canton of arrival FE	No	No	Yes	No	No	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	No	Yes	Yes	No	Yes	Yes
Country of birth X Year of arrival X Female FE	Yes	Yes	Yes	Yes	Yes	Yes

Dependent variable is Employment dummy (columns (1) to (3)) or Log Earnings (columns (4) to (6)). All regressions also include individual controls (Age, Age squared, Female, Married, Speaks local language) and time-varying canton-of-arrival controls (log of population, log of real median wage measured at the level of 7 greater regions). All these variables are also interacted with the Female dummy.

Standard errors are clustered at the level Canton of arrival × Year of arrival; * p < 0.10, ** p < 0.05, *** p < 0.01

Table A.18: Impact of local conditions in the canton of arrival on the gender gap in employment and earnings

	(1)	(2)	(3)	(4)	(5)	(6)
Vote gender equality	-0.00444	-0.0167		0.0327	0.0831	
	(0.0630)	(0.0660)		(0.175)	(0.178)	
Vote retirement age	0.0273	-0.00911		-0.00814	-0.00797	
	(0.121)	(0.121)		(0.289)	(0.296)	
Vote maternity leave	0.0308	0.00107		-0.0386	-0.168	
	(0.0770)	(0.0788)		(0.217)	(0.219)	
Unemployment rate	-0.0155***	-0.0115**	-0.0165**	-0.0119	0.00358	0.00816
	(0.00541)	(0.00570)	(0.00695)	(0.0154)	(0.0157)	(0.0190)
Co-national network (log)	-0.000868	-0.00341	-0.00481	0.0104	0.00568	0.00683
	(0.00431)	(0.00447)	(0.00450)	(0.0101)	(0.0101)	(0.0103)
Female X Vote gender equality	0.146***	0.134**	0.133**	0.479***	0.480***	0.443***
	(0.0561)	(0.0557)	(0.0554)	(0.161)	(0.167)	(0.163)
Female X Vote retirement age	-0.140	-0.122	-0.130	-0.125	-0.148	-0.0841
	(0.101)	(0.0995)	(0.0995)	(0.320)	(0.318)	(0.320)
Female X Vote maternity leave	-0.0763	-0.0733	-0.0717	-0.00861	-0.0207	0.0344
	(0.0761)	(0.0744)	(0.0742)	(0.236)	(0.233)	(0.234)
Female X Unemployment	-0.00564	-0.00619	-0.00669	-0.0336*	-0.0361*	-0.0361*
	(0.00642)	(0.00631)	(0.00630)	(0.0203)	(0.0202)	(0.0202)
Female X Co-national network	0.0203***	0.0232***	0.0240***	0.0189	0.0246	0.0235
	(0.00656)	(0.00671)	(0.00663)	(0.0190)	(0.0191)	(0.0191)
Dependent variable	Employm.	Employm.	Employm.	Log(earn.)	Log(earn.)	Log(Earn.)
Sample	All	All	All	Working	Working	Working
Observations	551752	551752	551752	272285	272280	272280
Canton of arrival FE	No	No	Yes	No	No	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	No	Yes	Yes	No	Yes	Yes
Country of birth X Year of arrival X Female FE	Yes	Yes	Yes	Yes	Yes	Yes

Dependent variable is Employment dummy (columns (1) to (3)) or Log Earnings (columns (4) to (6)). All regressions also include individual controls (Age, Age squared, Female, Married, Speaks local language) and time-varying canton-of-arrival controls (log of population, log of real median wage measured at the level of 7 greater regions). All these variables are also interacted with the Female dummy.

Standard errors are clustered at the level Canton of arrival × Year of arrival; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.19: Impact of local conditions in the canton of arrival on the gender gap in employment and earnings

	(1)	(2)	(3)	(4)	(5)	(6)
Attitudes gender SHP	-0.00616	-0.0200		-0.0308	-0.0849	
	(0.0279)	(0.0299)		(0.0714)	(0.0719)	
Unemployment rate	-0.0128**	-0.00889*	-0.0153**	-0.00827	0.00502	0.00902
	(0.00506)	(0.00531)	(0.00684)	(0.0138)	(0.0140)	(0.0191)
Co-national network (log)	-0.00212	-0.00466	-0.00616	0.00828	0.00380	0.00436
	(0.00428)	(0.00443)	(0.00448)	(0.0100)	(0.0100)	(0.0103)
Attitudes gender SHP	0.0654**	0.0597**	0.0598**	0.261***	0.243***	0.245***
	(0.0265)	(0.0257)	(0.0256)	(0.0793)	(0.0780)	(0.0787)
Female X Unemployment	-0.00906	-0.00999*	-0.00992*	-0.0396**	-0.0393**	-0.0388**
	(0.00585)	(0.00566)	(0.00565)	(0.0176)	(0.0175)	(0.0175)
Female X Co-national network	0.0244***	0.0270***	0.0277***	0.0299	0.0351*	0.0332*
	(0.00645)	(0.00659)	(0.00650)	(0.0188)	(0.0189)	(0.0188)
Dependent variable	Employm.	Employm.	Employm.	Log(earn.)	Log(earn.)	Log(Earn.)
Sample	All	All	All	Working	Working	Working
Observations	551752	551752	551752	272285	272280	272280
Canton of arrival FE	No	No	Yes	No	No	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	No	Yes	Yes	No	Yes	Yes
Country of birth X Year of arrival X Female FE	Yes	Yes	Yes	Yes	Yes	Yes

Dependent variable is Employment dummy (columns (1) to (3)) or Log Earnings (columns (4) to (6)). All regressions also include individual controls (Age, Age squared, Female, Married, Speaks local language) and time-varying canton-of-arrival controls (log of population, log of real median wage measured at the level of 7 greater regions). All these variables are also interacted with the Female dummy.

Standard errors are clustered at the level Canton of arrival × Year of arrival; * p < 0.10, ** p < 0.05, *** p < 0.01

Table A.20: Impact of local conditions in the canton of arrival on the gender gap in employment and earnings

	(1)	(2)	(3)	(4)	(5)	(6)
Vote gender equality	-0.00571	-0.0251		-0.00787	-0.0551	
	(0.0526)	(0.0562)		(0.130)	(0.134)	
Unemployment rate	-0.0133***	-0.0100**	-0.0150**	-0.0124	-0.00226	0.00743
	(0.00460)	(0.00480)	(0.00685)	(0.0129)	(0.0135)	(0.0184)
Network of working co-nationals (log)	0.0140***	0.0105**	0.0118***	0.0129	0.00753	0.00644
	(0.00432)	(0.00431)	(0.00424)	(0.0100)	(0.0105)	(0.0104)
Network of not working co-nationals (log)	-0.0202***	-0.0188***	-0.0216***	-0.0127	-0.0117	-0.0107
	(0.00499)	(0.00507)	(0.00499)	(0.0114)	(0.0114)	(0.0112)
Female X Vote gender equality	0.162***	0.147***	0.151***	0.533***	0.533***	0.508***
	(0.0458)	(0.0453)	(0.0453)	(0.128)	(0.131)	(0.130)
Female X Unemployment	-0.00817*	-0.00905*	-0.00918**	-0.0308**	-0.0334**	-0.0312**
	(0.00460)	(0.00464)	(0.00459)	(0.0145)	(0.0150)	(0.0147)
Female X Network of working co-nationals	-0.0153**	-0.0146**	-0.0155**	-0.00598	-0.00387	-0.00361
	(0.00601)	(0.00601)	(0.00600)	(0.0180)	(0.0185)	(0.0184)
Female X Network of not working co-nationals	0.0338***	0.0354***	0.0368***	0.0125	0.0147	0.0136
	(0.00719)	(0.00732)	(0.00727)	(0.0202)	(0.0206)	(0.0206)
Dependent variable	Employm.	Employm.	Employm.	Log(Earn.)	Log(Earn.)	Log(Earn.)
Sample	All	All	All	Working	Working	Working
Observations	551752	551752	551752	272285	272280	272280
Canton of arrival FE	No	No	Yes	No	No	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	No	Yes	Yes	No	Yes	Yes
Country of birth X Year of arrival X Female FE	Yes	Yes	Yes	Yes	Yes	Yes

Dependent variable is Employment dummy (columns (1) to (3)) or Log Earnings (columns (4) to (6)). All regressions also include individual controls (Age, Age squared, Female, Married, Speaks local language) and time-varying canton-of-arrival controls (log of population, log of real median wage measured at the level of 7 greater regions). All these variables are also interacted with the Female dummy.

Standard errors are clustered at the level Canton of arrival × Year of arrival; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.21: Impact of local conditions in the canton of arrival on the gender gap in employment and wages

	(1)	(2)	(3)	(4)	(5)	(6)
Vote gender equality	0.00818	-0.0153		0.00663	-0.0472	
	(0.0523)	(0.0561)		(0.129)	(0.134)	
Unemployment rate	-0.0145***	-0.0109**	-0.0159**	-0.0138	-0.00327	0.00643
	(0.00458)	(0.00480)	(0.00678)	(0.0128)	(0.0134)	(0.0183)
Co-national network (log)	-0.00100	-0.00350	-0.00490	0.0109	0.00681	0.00732
	(0.00429)	(0.00446)	(0.00449)	(0.00984)	(0.00981)	(0.0101)
Female X Vote gender equality	0.145***	0.129***	0.132***	0.515***	0.516***	0.492***
	(0.0460)	(0.0454)	(0.0455)	(0.127)	(0.130)	(0.129)
Female X Unemployment	-0.00726	-0.00815*	-0.00824*	-0.0303**	-0.0329**	-0.0307**
	(0.00466)	(0.00467)	(0.00462)	(0.0145)	(0.0150)	(0.0147)
Female X Co-national network	0.0207***	0.0237***	0.0244***	0.0180	0.0235	0.0221
	(0.00647)	(0.00663)	(0.00654)	(0.0185)	(0.0186)	(0.0186)
Speaks language canton	0.115***	0.104***	0.109***	0.153***	0.144***	0.142***
	(0.0146)	(0.0151)	(0.0152)	(0.0388)	(0.0392)	(0.0404)
Female X Speaks language canton	0.00492	0.00316	0.00277	0.0904	0.0906	0.0943
	(0.0238)	(0.0236)	(0.0236)	(0.0764)	(0.0760)	(0.0757)
Dependent variable	Employm.	Employm.	Employm.	Log(wage)	Log(wage)	Log(wage)
Sample	All	All	All	Working	Working	Working
Observations	551752	551752	551752	272285	272280	272280
Canton of arrival FE	No	No	Yes	No	No	Yes
Current year FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton FE	Yes	Yes	Yes	Yes	Yes	Yes
Current canton X current year FE	No	Yes	Yes	No	Yes	Yes
Country of birth X Year of arrival X Female FE	Yes	Yes	Yes	Yes	Yes	Yes
Education FE	No	No	No	No	No	No

Dependent variable is Employment dummy. Network is defined as log (nb of co-nationals+1). All regressions also include individual controls (Age, Age squared, Female, Married, Speaks local language) and time-varying canton-of-arrival controls (log of population, log of real median wage measured at the level of 7 greater regions). All these variables are also interacted with the Female dummy.

Standard errors are clustered at the level Canton of arrival × Year of arrival; * p < 0.10, ** p < 0.05, *** p < 0.01

Figure A.1: Refugee Women Employment Rates by Years since Arrival and Source Country Groups

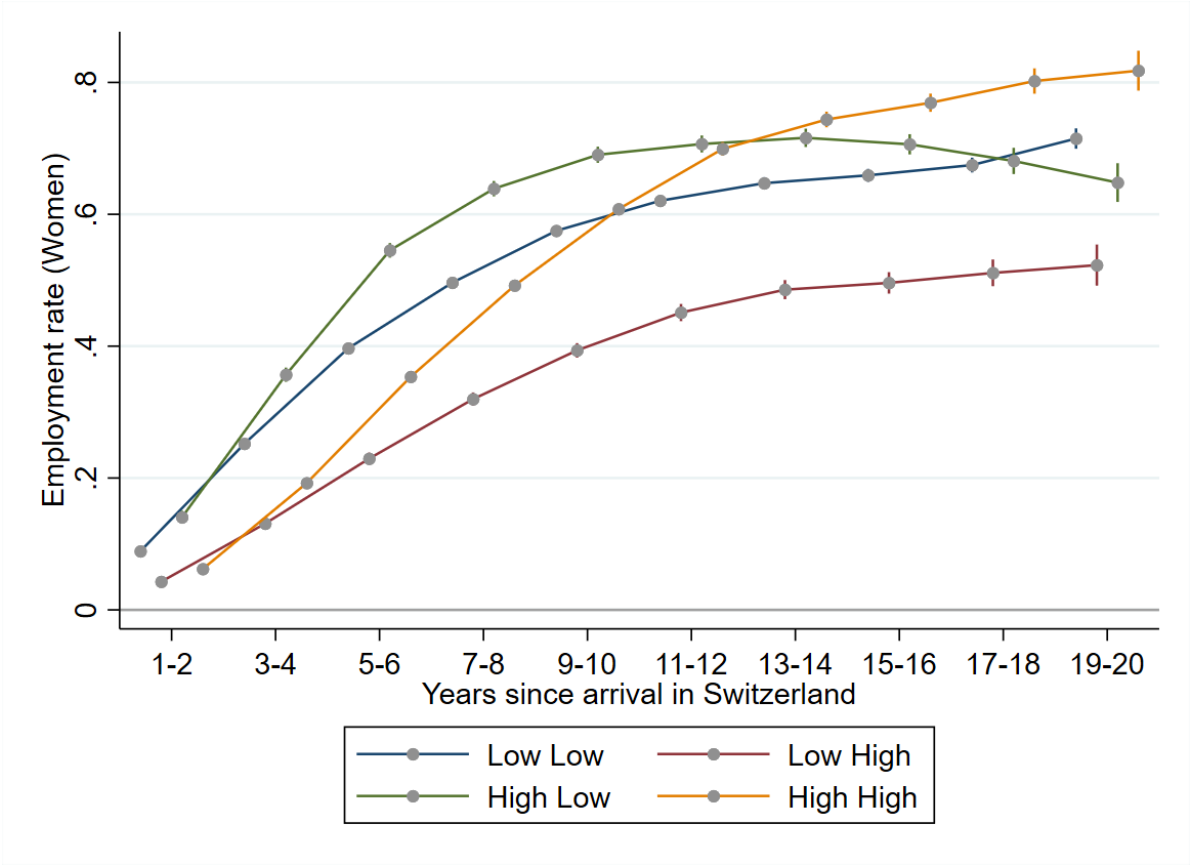
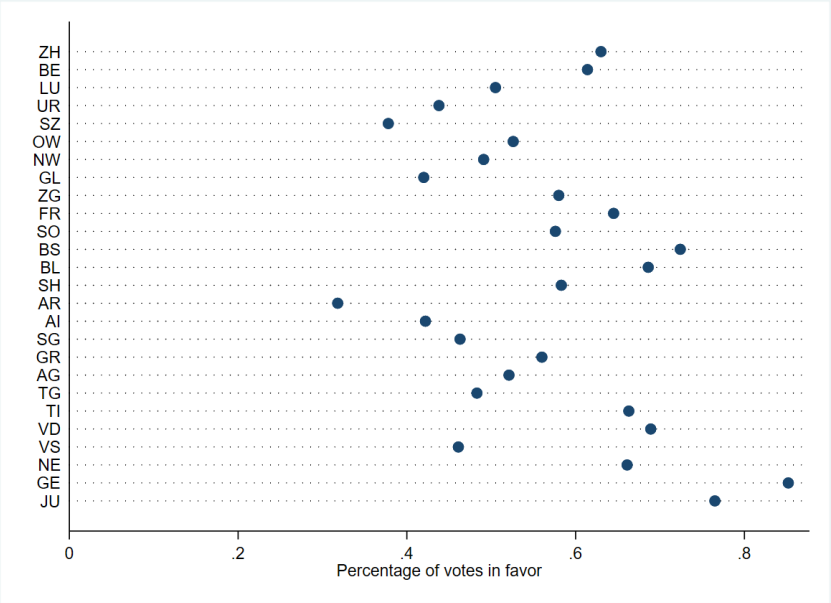
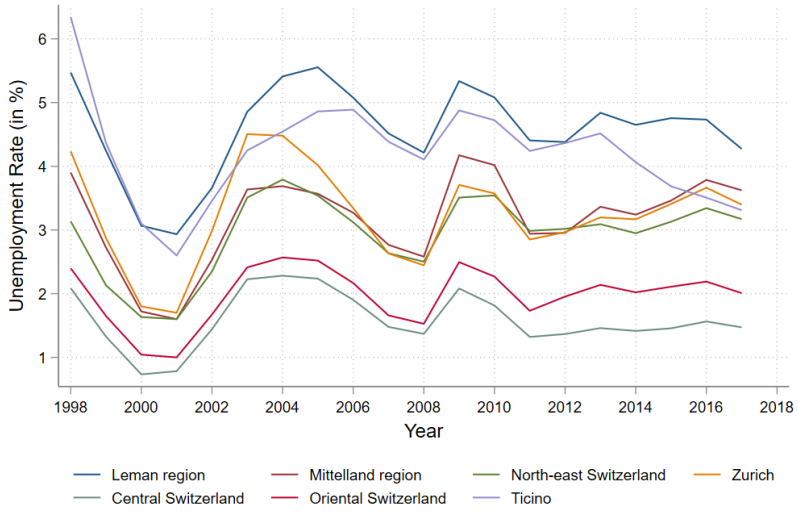


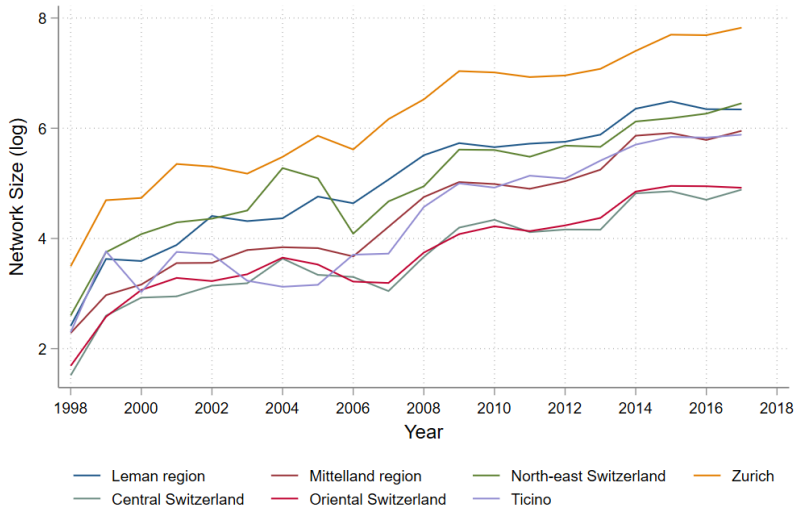
Figure A.2: Descriptive: Initial Local Conditions]



(a) Vote Outcomes by Canton



(b) Unemployment Rate over Time by Region



(c) Network Size over Time by Region

Figure A.3: Votes related to gender equality in Switzerland

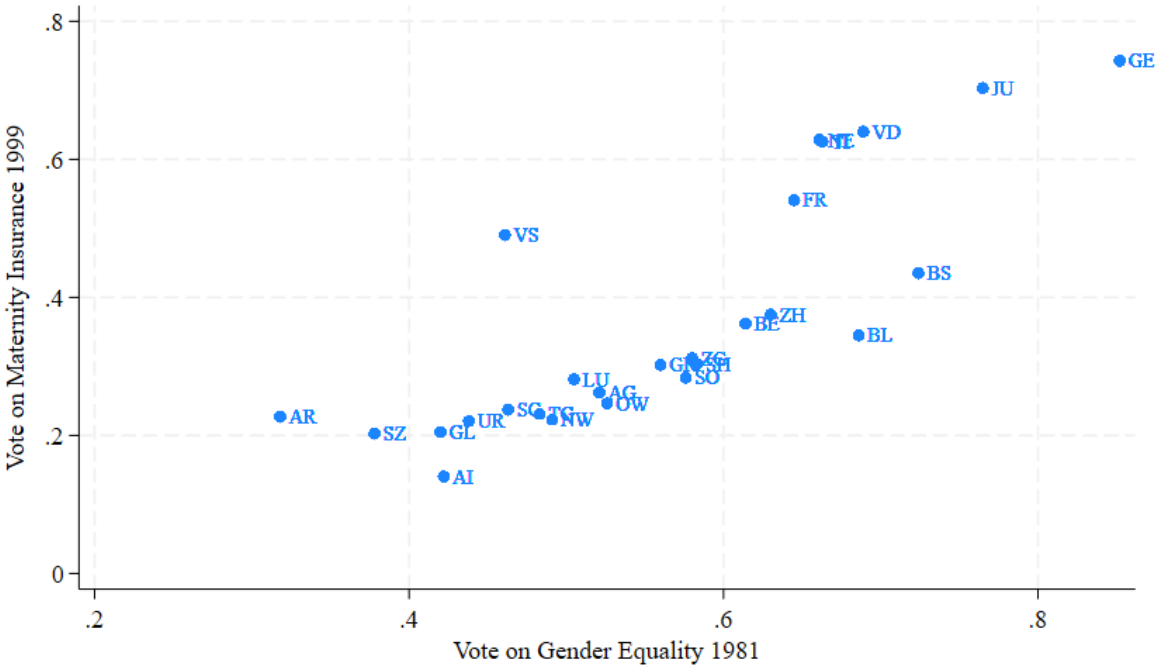




Figure A.4: The 1981 vote and attitudes related to gender equality in Switzerland

