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**Do Swiss Citizens of
Immigrant Origin
Face Hiring Discrimination
in the Labour Market?**

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Abstract

The extent to which discrimination in employment disadvantages children of immigrants is a major question both in economic research on labour market and in sociological studies of integration. This working paper contributes to the debate by reporting findings of a correspondence test in which pairs of equally qualified Swiss citizens – one from the majority group and one from one minority immigrant group – apply at job openings all over the country. Results show that children of immigrants holding Swiss qualifications and dual nationality need to send 30% more applications to receive a call-back for an interview when applying for apprenticeship level occupations. Chances of dual citizens to be invited to a job interview are largely the same across linguistic regions. These results partially confirm the findings of a correspondence test conducted in 2003. Unequal treatment is less frequent in occupations requiring tertiary level education compared to occupations requiring a completed apprenticeship; this is however not the case for Swiss candidates of Kosovar descent. The results suggest the need for further inquiry in occupational differences and ethnic hierarchies in the Swiss labour market.

Keywords

Labour Market, Switzerland, Hiring Discrimination, Correspondence Test, Second Generation

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1 Introduction

Ethnic discrimination in hiring decisions has been well-documented in many countries, with ethnic minority jobseekers writing about 50% more applications before being invited for a job interview than their majority competitors (Zschirnt and Ruedin 2016). However, it is not only first generation immigrants that are affected by ethnic discrimination, but also their offspring. Meta-analysis of field experiments on hiring discrimination, as well as research specifically addressing the difference in discrimination experienced by the first and second generation, finds evidence that discrimination is often due to the foreign name per se, ignoring the degree of integration of job applicants (Carlsson 2010; Zschirnt and Ruedin 2016). Yet, in societies that usually portray themselves as meritocratic and maintain that hard work will be rewarded independent of ethnic or social origin, discrimination against immigrants and their offspring is worrisome and poses a threat to social cohesion. It is worthwhile studying this issue in an immigration country like Switzerland, where, in 2017, 37% of the resident population is of an immigrant background (Bundesamt für Statistik 2018 c), 25% are foreigners (Bundesamt für Statistik 2018 a) and 17% of Swiss nationals aged 15 and over residing in the country hold dual citizenship¹ (Bundesamt für Statistik 2018 b).

Since their emergence in the late 1960s, field experiments have become a well-established way to study the extent of discrimination that minority job candidates encounter in the labour market. These allow researchers to vary the important characteristic, for example by varying the name to portray a different ethnic background. While such experiments have been conducted in most OECD countries and often also in more than one study, the knowledge about labour market discrimination on grounds of ethnicity is still scarce in Switzerland. So far, only Fibbi, Kaya and Piguët (2003) have conducted a correspondence test in Switzerland, in which they studied youths born abroad but who completed their education and apprenticeship in Switzerland and were now looking for a first job. They found significant rates of discrimination against minority candidates that varied depending on their ethnic origin².

This paper provides information from a new correspondence test conducted in the two main language regions of Switzerland³. It studies to what extent jobseekers with a non-Swiss name encounter discrimination on the Swiss labour market. Looking at three groups (Swiss dual nationals with German/French, Kosovar, or Turkish names), two regions (German- and French-speaking Switzerland) and four professions (sales assistant, electrician, HR clerk, nurse), the study assesses to what extent jobseekers with a non-Swiss name encounter hiring discrimination in the Swiss labour market and whether discrimination varies depending on the ethnic background of a candidate or the position he or she is applying for.

¹ Both statistical sources providing information on dual citizens, Swiss Labour Force Survey (SLFS) and Structural Survey, cover persons aged 15 and over; therefore the figure of dual nationals underestimates their number among the resident population.

² There is a second correspondence test in a Swiss study conducted by Diekmann et al. (2014). However, unlike the majority of correspondence tests, the authors did not apply for advertised vacancies but sent out unsolicited applications.

³ The Italian-speaking region, representing about 4% of the resident population of the country, was excluded because of the small number of jobs posted there and the high work load of preparing application material in a third language.

2 The Swiss Context

Switzerland makes for an interesting case study on the labour market discrimination of foreign named applicants, due to the high number of immigrants and their offspring – in particular from European Union or EFTA countries – living and working in the country. In fact, two-thirds of the Swiss immigrant population holds passports of EU or EFTA countries, with Italy, Germany, Portugal and France being the most important countries of origin, followed by countries such as Kosovo, Macedonia, Serbia, Croatia and Bosnia that were part of the Former Yugoslavia, and Turkey (Bundesamt für Statistik 2018d; OECD 2012). While employment rates and wages of immigrants are high in international comparison, immigrants are still disadvantaged: their unemployment rates are higher and salaries are lower than those of native Swiss (SECO 2018). Furthermore, there is evidence that the second generation in particular faces discrimination in the Swiss labour market, e.g. when looking for apprenticeships (Imdorf 2008). Such constraints on foreign born residents' social mobility can have long term repercussions for a meritocratic society (Zschirnt, 2018).

It is also a case worth studying for a number of structural reasons: First, due to the federal structure of the country, policy making is highly decentralised. Having four official languages further amplifies the level of heterogeneity between the different Swiss regions. Second, the labour market in Switzerland is characterised by high-female labour force participation rates, high salaries, and unemployment rates that have been consistently low in international comparison. Third, and closely related, the economy is very internationally oriented (OECD 2012). In addition to these structural factors, Switzerland does not have a comprehensive anti-discrimination law. Since it is not part of the European Union, it was not obliged to implement the EU's anti-discrimination directives. According to the results of the Migrant Integration Policy Index (MIPEX) in 2015, Switzerland is “one of the very few countries without a comprehensive anti-discrimination law and equality body with legal standing; a sizeable number of potential victims are poorly protected against racial, ethnic, religious and nationality discrimination” (Huddleston et al. 2015, 40).

Furthermore, the only correspondence test data available on ethnic discrimination in the labour market is already 15 years old and focused on the very specific situation of foreign born but Swiss educated youths looking for their first position after completing their apprenticeship (Fibbi, Kaya and Piguet 2003). Finally, a strong anti-immigration sentiment has been portrayed by the Swiss media and politics (see e.g. Boulila 2018), which raises the question to what extent these anti-immigration attitudes are reflected in the hiring decisions of Swiss employers.

3 Theoretical Background

Studies of labour market discrimination have a long tradition, particularly in the field of economics. In an early work on “The economics of discrimination” Gary Becker developed his theory of taste based discrimination (Becker 1957). According to this theory, employers are prepared to choose one candidate over another because they have a preference to work with someone of a specific gender, race, or other characteristic. Employers are even prepared to incur a cost (e.g. pay higher wages) to hire their preferred candidate and avoid working with a candidate they are averse to. According to Becker, discrimination not only occurs when the employer has discriminatory tastes,

but also when he/she anticipates that other employees or customers will avoid such an employee. In response to Becker's theory, Phelps (1972), Arrow (1973), and Aigner and Cain (1977) proposed a theory of statistical discrimination. They argue that, because of a scarcity of information about job candidates, employers use group information as signals in their hiring decisions and will avoid hiring members of a certain group, if they are expected "to be less qualified, reliable, long-term, etc. [...]" and if the cost of gaining information about the individual applicants is excessive" (Phelps 1972). Thus, following statistical discrimination theory, employers do not necessarily have a taste for discrimination, but try to avoid uncertainties and losses in their selection decisions by focusing on applicants' group memberships. According to both of these theories discrimination should not be a long term phenomenon, but should disappear or at least diminish over time if markets are competitive (e.g. Darity and Mason 1998). However, despite such predictions, meta-analyses of field experimental data have shown that ethnic discrimination in the labour market is very persistent over time (Quillian et al. 2017; Zschirnt and Ruedin 2016). The debate over why discrimination occurs and which theory is better suited to explain its occurrence is still ongoing.

4 Methodology

Field experiments have been deemed to be the "methodological gold standard" in discrimination research (Protsch and Solga 2017), because they allow researchers to observe real employers' hiring decisions in the labour market, while these employers are not aware that they are part of an experiment. They have proven particularly useful in the field of discrimination studies, where it would often not be possible to obtain data of the same quality by using other research methods, e.g. due to problems with social desirability biases. The field experiments quantify hiring discrimination against minority groups (e.g. immigrants, women, sexual or religious minorities, etc.) by submitting equally qualified fictitious applications to real advertised vacancies. Contact with employers can take place in person (so-called audit studies) or in writing (so-called correspondence studies), and the number of applications submitted to each employer can vary; what all experiments have in common is that employers' responses are carefully recorded and that the differences in invitation rates for majority and minority candidates can then be attributed to discrimination.

Conducting field experiments on ethnic discrimination in hiring decisions has several advantages compared to other methodologies (e.g. surveys or interviews with employers), but the methodology also faces limitations. The biggest advantage (in particular in correspondence tests) is that they give researchers complete control in creating the fictitious candidate profiles, which can be matched on numerous criteria (e.g. gender, age, socio-economic status, family status, work experience, or education) while providing sufficient variation to avoid detection by employers. However, field experiments, and in particular audit studies, have been criticised for several reasons. Heckman and Siegelman (1993) and Heckman (1998) criticise them on a methodological basis, for example on the problem of unobserved variables: they doubt that researchers can really match fictitious candidates and ensure that they are equivalent and that characteristics unobserved by the researchers do not influence the observations. Furthermore, they caution that employers might be forced to focus on very minute differences to break the tie between two very well qualified applicants. Another point of criticism is that field experiments are usually conducted for a limited number of positions, usually lower status positions, which makes the generalisation of results very problematic. Some of these points have been alleviated by conducting testing in writing rather than

in person, as this makes the matching of candidates easier and allows testing in a greater variety of jobs – the requirement being that applications can be submitted in writing.

A major strand of argumentation against conducting field experiments is the issue of research ethics. The nature of their research design makes audit studies and correspondence tests examples of covert research, where participants are not aware that they are taking part in an experiment. Field experiments thus infringe the basic research ethics principles of voluntary participation and informed consent by the participants, and non-deception. However, several research ethics guidelines in the social sciences have recognized that this infringement of research ethics standards might be justified in some situations, e.g. when it would not be possible to obtain data of the same quality by other means⁴. Furthermore, numerous courts have deemed evidence obtained by audit or correspondence tests as admissible evidence in legal proceedings, thus strengthening the position of researchers using the methodology (for a detailed discussion on research ethics see Zschirnt (2019)). It is therefore important to take these concerns seriously and address them in the research design of a field experiment.

5 Designing a Correspondence Test in a Bilingual Country

Planning a correspondence test is very resource and time consuming and requires a lot of attention to detail. In the case of Switzerland, this challenge was exacerbated by the bilingual character of the research design. The individual steps and decisions made from the start to the preparation of the application material are now discussed in detail.

5.1 Choice of Groups

The number of minority groups tested in a correspondence test varies quite a lot between experiments. While many researchers choose to test only one – often the largest or most visible immigrant group of a country, some experiments have included several immigrant groups (e.g. Booth, Leigh and Varganova, 2012; Weichselbaumer, 2016; Wood et al. 2009). Like in the correspondence test conducted by Fibbi, Kaya, and Piguet (2003), we chose to look at descendants of three immigrant groups⁵. We kept the groups of immigrants with Turkish or Kosovar origin (in Fibbi, Kaya and Piguet (2003), these were labelled according to their formal status in those days “Albanian speaking former Yugoslavs”), but replaced the group of the European Union immigrant. Instead of Portuguese we tested groups originating from neighbouring countries, i.e. people with German origin in the German-speaking part of Switzerland and with French origin in the French language region. These choices were based on the size of the respective immigrant groups as well as on findings from research on attitudes towards foreigners in Switzerland. These attitude surveys

⁴ Zschirnt (2018, 2019) includes the following examples: The American Sociological Association (2018), the British Sociological Association (2002), the American Psychological Association (2017), the National Committees for Research Ethics in Norway (NESH) (2006), the Deutsche Gesellschaft für Soziologie (2017), or the non-binding *EU Code of Ethics for Socio-Economic Research* (Dench, Iphofen and Huws 2004)

⁵ The field experiment discussed in this paper focuses on Swiss-born children of immigrants. They are portrayed as dual citizens and are assumed to have acquired Swiss citizenship through an individual – usually quite strict – naturalisation procedure, in the absence of a *jus soli* provision in Switzerland. In the paper, they are designated in reference to their ancestry as having a ‘Turkish/Kosovar/German/French-origin/descent’, or as being ‘minority’ applicants or foreign named candidates.

consistently show strong negative stereotypes towards people from former Yugoslavian countries and some negative attitude towards Turks, while immigrants from EU countries rarely encounter negative attitudes (e.g. Krings and Olivares, 2007; Longchamp et al., 2014; Rapp, 2015; Raymann, 2003). However, some academic studies conducted in recent years have shown that immigrants from neighbouring EU countries can also encounter negative stereotypes and that the small differences between Germans and Swiss-Germans, or French and Swiss-French, are often exaggerated (e.g. Helbling, 2011; Krings et al. 2014; Matser et al., 2010; Oudenhoven, Selenko and Otten, 2010). The different findings from attitude research, depending on the immigrant groups analysed, calls for a study that investigates whether such differences in attitudes also translate into behaviour, such as hiring practices.

5.2 Signalling Group Membership

In contrast to Fibbi, Kaya and Piguet's study (2003), in which fictitious applicants attended Swiss schools but indicated a birthplace abroad and held a long-term residence permit, all minority applicants in this correspondence test pointed out in their CVs that they had dual nationality (Swiss and nationality of parents' country of origin), had completed all their education in Switzerland, and listed German or French as one of their native languages. The résumés thus portray the applicants as Swiss dual nationals, members of the second generation, fluent in the local language and well integrated (not only in the labour market). Employers are therefore presented with "ideal" ethnic minority candidates. Next to indicating the citizenship of the country of origin, ethnicity was also signalled by the names chosen, as well as the listing of a second native language (e.g. Turkish or Albanian).

The names of the fictitious candidates were chosen very carefully, since employers should recognise them and attribute them correctly to the ethnic background of the applicants. However, names can signal more than just ethnicity, e.g. socio-economic status or religion, and might introduce a number of unintended and unobserved variables (for discussions on names used in correspondence testing see e.g. Crabtree and Chykina 2018; Fryer and Levitt 2004; Gaddis 2017a; Gaddis 2017b; Pager 2007). Using information on the frequency of names provided by statistical offices, language societies, newspapers, online sources or previous studies, frequent first and last names that were common in each country of origin were selected. The origins of the names were then checked against popular baby naming websites to exclude names with strong religious connotations. Finally, all combinations of names were looked up on Facebook, to see if they existed (i.e. were plausible) and whether numerous profiles with these names existed, so that employers would not be able to immediately identify a candidate. Table 1 provides an overview of the names used in this correspondence test.

Table 1. Names used in the correspondence test

Origin	Female	Male
German	Kathrin Hoffmann	Alexander Hoffmann
Swiss German	Fabienne Kälin	Pascal Kälin
Swiss French	Céline Favre	Sébastien Favre
French	Inès Dubois	Raphaël Dubois
Kosovo	Shpresa Krasniqi	Bekim Krasniqi
Turkey	Filiz Yilmaz	Cem Yilmaz

Our study reveals whether hiring discrimination turns Swiss citizens holding immigrant-sounding names and dual citizenship into ‘ethnic’ minorities. Therefore, we indicate the tested groups as based either on names, or origin, or ethnicity, those terms being in this text used as synonyms.

5.3 Choice of Locations

Many correspondence tests focus on specific cities within a country or a specific language region, yet some studies also used vacancies from all over the countries studied (examples include: Austria (Weichselbaumer 2016b), Germany (Kaas and Manger 2012; Schneider, Yemane and Weimann. 2014), The Netherlands (Andriessen et al. 2012; Blommaert, Coenders and Van Tubergen 2014), Sweden (Agerström et al. 2012), or the US (Widner and Chicoine 2011)). While Fibbi, Kaya and Piguet (2003) focused on specific urban regions in the German and French-speaking parts of Switzerland, this study included vacancies from all over Switzerland, both in urban and rural regions, excluding only the small Italian-speaking part for logistical reasons. The number of vacancies published in the Italian-speaking area is too low to make it worthwhile investing the huge effort of creating application materials in Italian. Data by the Stellenmarktmonitor Schweiz (Buchmann et al. 2015) also shows that most vacancies are published in the German-speaking part of Switzerland (almost 80%), followed by the French-speaking area (almost 15%). Including both language regions allows us to examine whether discrimination is different across the larger Swiss language areas.

5.4 Choice of Occupations

Occupations tested in the correspondence tests were carefully selected and had to fulfil certain criteria to make their inclusion in the correspondence test feasible. These criteria were:

- Applications for the position are made in writing,
- Applications are submitted online (by email or through an online application form),
- Application materials can be standardised to fit a great number of positions,
- Vacancies for the occupation are published steadily and in sufficient numbers, and
- Positions do not require too much work experience or specialised qualifications.

These criteria led to the focus on apprenticeship and intermediate skilled positions, excluding highly skilled positions, where work experience, networks and specialised qualifications are more important.

In order to identify occupations for which the creation of credible application materials was feasible and where a sufficiently high number of vacancies was available, we used the data set of the Stellenmarktmonitor Schweiz (Buchmann et al. 2015), and compared the frequently listed occupations of this data set to search results on major Swiss job search websites. Thus, we created a shortlist of the most frequently advertised positions. Subsequently, we checked whether it was possible to create credible and convincing applications for our fictitious candidates, excluding positions such as architects, which would require a portfolio of previous work. We chose two positions requiring a completed apprenticeship (sales assistant and electrician) and two intermediate skilled positions (nurse and HR clerk); the intermediate skilled positions were, however, only tested in the German-speaking part of Switzerland (Zschirnt 2018). Furthermore, occupations dominated by male or female workers only received fictitious applicants of the respective gender (e.g. only male fictitious candidates applied for a position as electrician) (Table 2).

Table 2. Overview of occupations and gender tested as well as regional coverage

Occupation	Gender	Regional Coverage
Sales Assistant (Detailhandelskaufmann/-frau, conseiller/conseillère client)	Male and female	French and German-speaking regions
Electrician (Elektroinstallateur, installateur électricien)	Only male	French and German-speaking regions
Nurse (Pflegefachfrau)	Only female	German-speaking region
HR Clerks (HR-Fachmann/-frau)	Male and female	German-speaking region

5.5 Identifying Vacancies

As mentioned in the previous paragraph, a steady rate of advertised positions is essential to the conduct of a correspondence test. Open positions were identified using the major job search websites in Switzerland. In the German-speaking part, positions were found using www.jobs.ch and www.job-room.ch (the latter being the website of the Swiss Federal employment agency). To identify positions in the French-speaking area, a greater number of websites was used because of the smaller size of the labour market. These included (among others): www.jobs.ch, www.jobup.ch, www.indeed.ch, or www.job-room.ch.

5.6 Application Materials

Creating credible applications for the fictitious candidates is the most important step in the preparation of a correspondence test. Applications have to be perceived as realistic, fitting the vacancies they are submitted to, and, in paired applications, have to be sufficiently different but substantially equal to avoid raising suspicion on the part of the employer. While the preparation of CVs and cover letters meeting these requirements is always challenging, conducting a correspondence test in Switzerland involves even more preparatory work as a complete application dossier usually includes also a photograph, work certificates or diplomas. Conversations with HR professionals in Switzerland have shown that applications that miss any of these elements are often

considered incomplete and are immediately discarded. Furthermore, the Swiss context provides another challenge, since the labour market is divided by the language regions of the country, requiring researchers to prepare the application packages in two languages. To limit the preparatory burden on the research team, positions that were advertised in Italian or English were excluded from the experiment.

In a first step, we designed CVs for each occupation for the fictitious applicants. These had to be realistic, but could not be the CV of actual job seekers or employees. Applicants had to show a credible career trajectory and meet the requirements of the posted positions. The fictitious candidates in this correspondence test were born between 1990 and 1996, had a completed apprenticeship and had continued to work in the same company for some years. We changed this procedure slightly for the HR clerk résumé as this position requires more work experience; this was shown by a change of employer shortly after completing his or her apprenticeship. To create the résumés, we drew on LinkedIn profiles that were publically accessible, résumés uploaded on job search websites, and information from career advice websites. We also looked at jobs posted for the selected occupations to see which skills or qualifications employers were looking for. The CVs that were created based on this information and the cover letters matching these candidates were then discussed and fine-tuned with HR specialists. Finally, all CVs and cover letters were prepared in two different layouts to avoid easy detection by the employers.

In a second step, reference letters from previous employers were created. Examples retrieved online, as well as from text books explaining how to write reference letters, were used to draft reference letters for our fictitious candidates. These, too, were then fine-tuned with the help of HR specialists. Once the first set of cover letters, CVs and reference letters for the German-speaking part of Switzerland was created, all documents were translated into French.

The next element required for a complete application is a photograph of the candidate, which is usually included on the CV. There have been several correspondence tests that have used photographs showing the fictitious candidates (e.g. Arceo-Gomez and Campos-Vazquez 2014; Kaas and Manger 2012; Schneider, Yemane and Weinmann 2014; Weichselbaumer 2016a; Weichselbaumer 2016b), even though the use of photographs poses its own challenges. A detailed discussion of the problems that the use of photographs can introduce in the context of a correspondence test can be found in Rich (2018). We are very thankful that Doris Weichselbaumer granted us the permission to use the carefully prepared and pretested photographs from her Austrian correspondence test (Weichselbaumer 2016b). The pictures can be used for both the majority and the minority candidate as they portray the same phenotype and were randomly assigned to the candidates⁶.

The diplomas applicants habitually include in their application dossiers were another important part of the application package. Examples of diplomas were collected using our personal networks, google image searches or websites such as LinkedIn or Instagram, where people uploaded copies of their diplomas and made them accessible for all users. The documents obtained this way were then manipulated in Photoshop to fit the fictitious candidates.

⁶ The construction of the photographs as well as the pre-tests regarding their comparability are discussed in detail in Weichselbaumer (2016b).

The last elements to be created were contact details for the candidates. All of them had to be able to provide an actual address, an email address, and a phone number. The addresses used in this correspondence test were real street addresses of apartment houses in several Swiss cities, the email addresses were created using gmail.com, and the phone numbers were mobile phone numbers set up with a voice mail box with the provider's default message. We had one phone number for the majority candidates and one phone number for the minority candidates and were able to match the calls to the vacancies using the messages left or a reverse phone number search.

For each vacancy all the individual elements of the application (i.e. the cover letter, the CV, the layout, the photograph, etc.) were randomly assigned to the two fictitious candidates and complete application packages were compiled. These random assignments of applicants' characteristics were carefully recorded in the data. Furthermore, the order in which applications were sent was also randomized.

The fieldwork was carried out in the German-speaking cantons from October 2017 and lasted 7 months, while the French data collection took place from February 2018 and lasted 9 months.

5.7 Research Ethics

The research ethics concerns inherent in correspondence testing were briefly mentioned in the methodology section above. In order to take full account of the ethical issues, the ethical challenges involved in the present research project were very carefully analysed. In accordance with the relevant literature, we argue that infringing the non-deception principle can be counterbalanced by the greater societal interest in the research topic and the lack of alternative methods to obtain data of the same quality.

The project description, including a detailed account of how the ethical challenges were addressed in the research project, was presented to the NCCR Ethical Commission composed of three international scholars (2 external and 1 internal to the University of Neuchâtel) and was submitted for approval to the Ethical Commission of the University of Neuchâtel. The Commission approved the project in May 2016. This ethical approval process also laid the foundation for a publication on research ethics in correspondence testing that emerged from this project (Zschirnt 2019).

The details of the research design were strongly influenced by compliance with the ethical standards discussed in the above-mentioned documentation and the concern to minimise inconvenience for employers. For example, each employer received only one set of paired applications to keep inconvenience to each individual employer as low as possible. In the cases where employers contacted the fictitious candidates for an interview, these invitations were quickly and politely declined. Furthermore, results are analysed only in an aggregated form, which ensures respect for the privacy of the employers. In the name of transparency, we inform the companies of their participation in the study at the end of the experimental research.

Despite the thorough preparatory work, some employers in the health care system identified the prepared diplomas for nurses as fictitious. These employers informed the police, so that the prosecutor's office investigated their complaints for forgery of documents and the unauthorized use of the logo of the Red Cross, which appeared on the nurses' diplomas. The Neuchâtel Public

Prosecutor's Office eventually closed the case on the grounds that no profit was meant to be drawn from the forgery of documents and that there was no intention to misuse the Red Cross emblem and name as the team was not aware of its special protection. In the near future the authors of this Working Paper will present and discuss those methodological, ethical and legal aspects of the study in a scientific paper.

Because of the judicial case, the testing of intermediate skilled positions (i.e. nurses and HR clerks) was no longer pursued in the French speaking part of the Swiss labour market.

6 Findings

For the sake of readability, the main findings are presented in separate tables corresponding to the research question they provide an answer for. The few redundancies that this choice of a meticulous presentation entail are largely compensated by a more transparent message. All the tables have strictly the same structure (following Zschirnt 2018), detailed in the legend of Table 1 and thoroughly discussed in the first subchapter.

6.1 Do Swiss Citizens of Different Immigrant Origin Face Hiring Discrimination?

The first step of the analysis addresses the question whether Swiss citizens of immigrant origin are confronted by ethnic discrimination in hiring decisions in the Swiss labour market. The data presented in Table 3 provides the descriptive statistics from the experiment in both language regions for the two occupations of sales assistant and electrician, the two professions that were tested nationwide and require an apprenticeship level qualification.

Table 3. Correspondence testing results for the Swiss labour market (nationwide) in apprenticeship level occupations (sales assistant and electrician), by ethnicity

	[1] Number of jobs	[2] None invited	[3] Both invited	[4] Only majority invited	[5] Only minority invited	[6] Net discrimination rate in %	[7] Callback majority in %	[8] Callback minority in %	[9] Ratio	[10] χ^2
France and Germany	179	109	44	18	8	14.3	34.6	29.1	1.2	**
Kosovo	182	111	39	26	6	28.2	35.7	24.7	1.4	***
Turkey	180	125	31	15	9	10.9	25.6	22.2	1.2	
Total CH all	541	345	114	59	23	18.4	32.0	25.3	1.3	***

Explanatory notes:

Column [1] shows the total number of vacancies used. Columns 2 to 5 express the treatment of the pair of applications sent.

Column [2] specifies in how many cases both applications were rejected or did not receive an answer.

Column [3] shows the number of cases where both candidates received a positive reply.

Column [4] lists the cases in which only the Swiss-origin candidate received a positive reply.

Column [5] are the cases in which only the Swiss minority candidate received a positive reply.

Column [6] shows the net discrimination rate: $([4]-[5])/([3]+[4]+[5])$.

Columns [7] and [8] report the success rates of the majority $([3]+[4])/[1]$ and minority candidates $([3]+[5])/[1]$.

Column [9] presents the ratio between the success rates of the majority and minority candidates, also known as the relative call-back rate. Column [10] shows the statistical significance of the difference between [4] and [5] using a chi-square test (significant at the * 10%, ** 5% and ***1% level). The different rows present the results for all applicants combined (1st row), and for applicants from France and Germany, from Kosovo, and Turkey separately. (Table based on Zschirnt, 2018)

Paired applications were sent in response to vacancies posted online by 541 firms looking for a sales assistant or an electrician (Column 1). In 85% of the cases, the two applications were treated equally (sum of N=345, none invited in Column 2 and N=114, both invited in Column 3).

However, in other cases the two fictitious applicants encountered different treatment (Column 4, only majority invited and Column 5, only minority invited). If unequal treatment were random, cases in favour of the majority candidate should equate cases in favour of the minority candidate: the values in Column 4 and Column 5 should be the same. Cases that differ from this symmetry are considered as unequal treatment. The net discrimination rate (18.4%, Column 6) indicates that minority candidates stand about a one-in-five chance of advancing as far as a majority candidate in the hiring process because they are not invited the interview. The outcome of interest is whether candidates get invited for a job interview or not, and call-back rate – the ratio between interview invitations and applications sent – shows the success rate of each candidate to receive a positive reply. Applications of majority candidates resulted in an invitation for a job interview in 32.0% of the cases (Column 7) while applications of minority candidates received such an invitation in 25.3% of the cases (Column 8). In the following the results are discussed mainly on the basis of the call-back rates.

Column 9 of Table 3 expresses these outcomes as a ratio, the relative call-back rate, which compares how often a majority applicant is called for an interview to how often a minority applicant is invited for an interview. Majority applicants for the two tested apprenticeship level occupations need to send 10 résumés to get one call-back, whereas minority applicants need to send about 13 résumés. In other terms: minority candidates have to write 1.3 times as many applications as majority candidates to be invited for a job interview. This 30-percent gap in call-back is statistically significant at the 1% level (Column 10).

These findings demonstrate that Swiss children of immigrants educated in the country and holding Swiss qualifications are significantly less likely to be invited for a job interview compared to their majority competitors. A comparison of three different origin groups shows, however, that there are substantive variations according to origin. Swiss of Turkish origin have lower chances than a majority candidate, yet the gap between the two is not wide enough so as to exclude the null hypothesis, i.e. that this gap is due to hazard. Swiss children of Kosovar origin are the most exposed to hiring discrimination as they need to submit 1.4 times as many applications as majority candidates to be invited for a job interview, whereas Swiss citizens originating from the two neighbouring countries need to write 1.2 applications to be invited to a job interview.

6.2 Are There Differences by Occupation?

In a second step, the analysis looks at the selected occupations in more detail, asking whether the welcoming of Swiss applicants of immigrant origin in Swiss firms varies according to the type of occupation they apply for.

Table 4. Correspondence testing results for the Swiss labour market (nationwide) in apprenticeship level occupations, by occupation and ethnicity

	[1] Number of jobs	[2] None invited	[3] Both invited	[4] Only majority invited	[5] Only minority invited	[6] Net discrimination rate in %	[7] Callback majority in %	[8] Callback minority in %	[9] Ratio	[10] χ^2
<i>Sales assistant</i>	270	198	26	33	13	27.8	21.9	14.4	1.51	***
France and Germany	89	61	10	14	4	35.7	27.0	15.7	1.71	**
Kosovo	91	66	10	11	4	28.0	23.1	15.4	1.50	*
Turkey	90	71	6	8	5	15.8	15.6	12.2	1.27	
<i>Electrician</i>	271	147	88	26	10	12.9	42.1	36.2	1.16	***
France and Germany	90	48	34	4	4	0.0	42.2	42.2	1.00	
Kosovo	91	45	29	15	2	28.3	48.4	34.1	1.42	***
Turkey	90	54	25	7	4	8.3	35.6	32.2	1.10	
Total CH all	541	345	114	59	23	18.4	32.0	25.3	1.3	***

The respective minority candidates stand different chances of being invited to a job interview according to the occupation involved, in spite of the fact that the difference in overall relative call-back ratios for the two trades is not statistically significant (Table 4). Swiss professionals of Kosovar origin present similar unfavourable relative call-back ratios in the two occupations tested. By contrast, Swiss applicants whose parents come from neighbouring countries face significantly lower chances than a majority candidate to advance in the recruitment process when applying for a sales assistant position than when applying for a position as an electrician. Yet, they are treated on par when applying as electricians. Swiss candidates with a Turkish background are the least exposed to hiring discrimination: in both occupations the findings for Swiss candidates with a Turkish background were not statistically significant.

6.3 Are There Differences by Gender (in Sales)?

The next sept of the analysis examined whether the gender of the applicant influences the chances of being invited for a job interview. The answer to this question is based on data relative to the sales assistant position only, as only these job openings received applications from both male and female candidates.

The relative call back rate (ratio) is 1.5 for both male and female candidates who apply for sales assistant positions. However, the invitation rates are higher for female candidates (28% vs. 18%) compared to male candidates (15% vs. 10%) (Table 5).

Table 5. Correspondence testing results for the Swiss labour market (nationwide) in sales occupations, by gender

	[1] Number of jobs	[2] None invited	[3] Both invited	[4] Only majority invited	[5] Only minority invited	[6] Net discrimination rate in %	[7] Callback majority in %	[8] Callback minority in %	[9] Ratio	[10] χ^2
Male	122	100	8	10	4	27.3	14.8	9.8	1.5	
Female	148	98	18	23	9	28.0	27.7	18.2	1.5	**
Total sales assistants CH all	270	198	26	33	13	27.8	21.9	14.4	1.5	***

Are female minority candidates more or less exposed than men to hiring discrimination? Empirical evidence from similar studies delivers contrasting conclusions. Andriessen et al. (2012) found women somewhat less targeted by hiring discrimination, corroborating the hypothesis that minority men are perceived as more threatening than minority women. On the other hand, in their meta-analysis of correspondence testing studies in OECD countries, Zschirnt and Ruedin (2016) found no indication of systematic gender differences on a large scale. Bovenkerk et al. (1995) came to similar conclusions.

In our field experiment, we find no statistically significant gender difference among minority groups. As our experiment was designed to assess ethnic hiring discrimination, the data do not allow a more detailed discussion of this issue.

6.4 Are There Regional Differences in Hiring Discrimination?

The national scope of the experiments allows us to focus on the question of whether the treatment of Swiss citizens of immigrant descent varies according to the language region in which they live. In other words, is there a difference between the French and the German-speaking parts of the Swiss labour market when it comes to ethnic discrimination in hiring decisions?

Table 6. Correspondence testing results for the Swiss labour market in apprenticeship level occupations, by ethnicity and language region

	[1] Number of jobs	[2] None invited	[3] Both invited	[4] Only majority invited	[5] Only minority invited	[6] Net discrimination rate in %	[7] Callback majority in %	[8] Callback minority in %	[9] Ratio	[10] χ^2
Germany	90	40	30	14	6	16.0	48.9	40.0	1.2	*
Kosovo	92	44	31	13	4	18.8	47.8	38.0	1.3	**
Turkey	90	55	22	9	4	14.3	34.4	28.9	1.2	
Total CH DE	272	139	83	36	14	16.5	43.8	35.7	1.2	***
France	89	69	14	4	2	10.0	20.2	18.0	1.1	
Kosovo	90	67	8	13	2	47.8	23.3	11.1	2.1	***
Turkey	90	70	9	6	5	5.0	16.7	15.6	1.1	
Total CH FR	269	206	31	23	9	22.2	20.1	14.9	1.4	***

Unequal treatment for Swiss candidates of immigrant origin is a reality common in both language regions (Table 6). This is notably the case for applicants of Kosovar origin, the only group significantly affected by hiring discrimination in both language regions. The gap between majority applicants and candidates with a Kosovar name is especially wide in the French-speaking region: the minority applicant has to write twice as many applications to be invited for a job interview.

Moreover, Table 6 shows that Swiss candidates of German descent applying for a position in the German-speaking area of the country are also significantly affected by the risk of unequal treatment (at the 10% level), while this is not the case for French-origin candidates in the French-speaking cantons (here the findings are not statistically significant). In both regions Turkish-origin applicants experience unequal treatment to a lesser, non-significant, degree. Furthermore, in our experiment call-back rates for majority and minority applicants are generally higher in the German-speaking region than in the French-speaking one, which could affect the results.

We have seen that regional relative call-back ratios for both trades are statistically significant at the aggregate level. Are the differences by trade that were observed at the national level (Table 7) also important at the regional level?

Table 7. Correspondence testing results for the Swiss labour market in apprenticeship level occupations, by occupation, ethnicity and language region

	[1] Number of jobs	[2] None invited	[3] Both invited	[4] Only majority invited	[5] Only minority invited	[6] Net discrimination rate in %	[7] Callback majority in %	[8] Callback minority in %	[9] Ratio	[10] χ^2
<i>Sales assistant</i>	136	83	19	24	10	26.4	31.6	21.3	1.5	**
Germany	45	24	7	11	3	38.1	40.0	22.2	1.8	**
Kosovo	46	28	8	7	3	22.2	32.6	23.9	1.4	
Turkey	45	31	4	6	4	14.3	22.2	17.8	1.3	
<i>Electrician</i>	136	56	64	12	4	10.0	55.9	50.0	1.1	**
Germany	45	16	23	3	3	0.0	57.8	57.8	1.0	
Kosovo	46	16	23	6	1	16.7	63.0	52.2	1.2	*
Turkey	45	24	18	3	0	14.3	46.7	40.0	1.2	*
Total CH DE	272	139	83	36	14	16.5	43.8	35.7	1.2	***
<i>Sales assistant</i>	134	115	7	9	3	31.6	11.9	7.5	1.6	*
France	44	37	3	3	1	28.6	13.6	9.1	1.5	
Kosovo	45	38	2	4	1	42.9	13.3	6.7	2.0	
Turkey	45	40	2	2	1	20.0	8.9	6.7	1.3	
<i>Electrician</i>	135	91	24	14	6	18.2	28.1	22.2	1.3	*
France	45	32	11	1	1	0.0	26.7	26.7	1.0	
Kosovo	45	29	6	9	1	50.0	33.3	15.6	2.1	**
Turkey	45	30	7	4	4	0.0	24.4	24.4	1.0	
Total CH FR	269	206	31	23	9	22.2	20.1	14.9	1.4	***

In both regions, call-back ratios for electricians tend to be lower than for the sales occupation, signalling less discrimination in this occupation. Kosovar-origin electricians are the most exposed to unequal treatment in the two regions, Turkish-origin electricians are also affected in the German-speaking area but not in the French-speaking one; finally, electricians whose parents come from a neighbouring country have similar or even identical call-back rates to majority candidates in the two regions.

The picture is quite different in the sales sector. In the German-speaking region, the only minority group affected by statistically significant unequal treatment is the German-origin sales applicants, with a quite high relative call-back rate. Candidates with a German background experience the highest relative call-back rate when applying for one occupation, sales, and the lowest for the other tested trade, electrician. Contrasting with the general trend, Kosovar-origin applicants are not the most affected by hiring discrimination in the sales position. In the French-speaking region, the ethnic group ranking of candidates for a sales position resembles the overall picture.

6.5 Is Discrimination Lower in Professions Requiring Tertiary Level Training?

In the German-speaking region the field experiment included not only apprenticeship level occupations but also professions requiring a tertiary qualification (nurses and HR clerks, for more details, see Zschirnt 2018). This allows us to answer the question of whether unequal treatment differs according to the level of qualification required for the occupation.

Table 8. Correspondence testing results for the Swiss-German labour market, by educational level of occupation and ethnicity

	[1] Number of jobs	[2] None invited	[3] Both invited	[4] Only majority invited	[5] Only minority invited	[6] Net discrimination rate in %	[7] Callback majority in %	[8] Callback minority in %	[9] Ratio	[10] χ^2
Germany	90	40	30	14	6	16.0	48.9	40.0	1.2	*
Kosovo	92	44	31	13	4	18.8	47.8	38.0	1.3	**
Turkey	90	55	22	9	4	14.3	34.4	28.9	1.2	
Total secondary ed. level CH DE	272	139	83	36	14	16.5	43.8	35.7	1.2	***
Germany	96	57	26	3	10	-17.9	30.2	37.5	0.8	*
Kosovo	96	61	23	10	3	19.4	34.4	27.1	1.3	*
Turkey	96	50	34	8	4	8.7	43.8	39.6	1.1	
Total tertiary ed. level CH DE	288	168	83	21	17	3.3	36.1	34.7	1.0	

Overall, the relative call-back rate for tertiary level occupations is 1.0, indicating that the treatment of applications tends to be identical between majority and minority groups. Data reveal a specific ethnic ranking. While applicants with a Kosovar background are exposed to unequal treatment, with a relative call-back rate of 1.3, candidates with a German background are even preferred to Swiss-origin applicants, as indicated by a relative call-back rate of 0.8. Such a situation contrasts with the observations for secondary level occupations (Table 8). The gap between relative call-back rates, according to the educational requirements of jobs, is statistically significant ($p < 0.05$) only for majority candidates but not for minority applicants.

As shown in Table 9, the lowest relative call back rate was measured for the position of HR clerks in the German speaking part of Switzerland. On the aggregate level combining all ethnic origin groups, the results are, however, not statistically significant. Findings for the HR clerk position are only statistically significant in the case of German-named applicants. For the second intermediate skilled position, that of nurses, the results also show almost equal treatment when considering all candidates, but here, too, the results are not statistically significant. In the case of nurses, the only significant finding is discrimination against Kosovar named applicants (Zschirnt 2018).

Table 9. Correspondence testing results for the Swiss-German labour market in tertiary level occupations, by occupation and ethnicity

	[1] Number of jobs	[2] None invited	[3] Both invited	[4] Only majority invited	[5] Only minority invited	[6] Net discrimination rate in %	[7] Callback majority in %	[8] Callback minority in %	[9] Ratio	[10] χ^2
<i>Nurse</i>	144	62	63	12	7	6.1	52.1	48.6	1.1	
Germany	48	18	22	3	5	-6.7	52.1	56.3	0.9	
Kosovo	48	27	16	5	0	23.8	43.8	33.3	1.3	**
Turkey	48	17	25	4	2	6.5	60.4	56.3	1.1	
<i>HR clerk</i>	144	106	20	9	10	-2.6	20.1	20.8	1.0	
Germany	48	39	4	0	5	-55.6	8.3	18.8	0.4	**
Kosovo	48	34	7	5	3	13.3	25.0	20.8	1.2	
Turkey	48	33	9	4	2	13.3	27.1	22.9	1.2	
Total tertiary ed. level CH DE	288	168	83	21	17	3.3	36.1	34.7	1.0	

A closer look at the two different professions shows that in both professions Swiss applicants of German origin are more readily invited for a job interview than majority candidates, the gap being statistically significant for HR clerks. Moreover, Swiss applicants of Kosovar descent experience a significantly lower call-back rate even in the very tight labour market for nurses.

7 Discussion

This correspondence test uncovers major features of the treatment of minorities on the Swiss labour market concerning occupational differences, ethnic hierarchies, and regional variations. A comparative perspective reveals the implications of the findings.

7.1 Occupational Differences

International evidence attests “that more discrimination is found in the lower segments of the labour market” (Andriessen et al. 2012: 256; also Bovenkerk et al. 1995; Carlsson 2010). Our experiment confirms this at the aggregate levels and for German applicants. Yet, the experiment finds evidence that hiring discrimination is similar across levels of qualification for Kosovar candidates. Our data shows that education reduces exposure to discrimination for German candidates but does not seem to protect Kosovans from discrimination in accessing the labour market.

This finding is consistent with the matching hierarchies theory. Auer et al. argue that employers’ hiring decisions are influenced by their perception “of a candidate’s nationality within the framework of pre-existing ethnic hierarchies” (2018: 4), on one side, and by their understanding of occupational hierarchies, on the other. The model maintains that employers seek “to maximize the fit between an applicant’s position within the ethnic hierarchy and the occupation’s position within the social status scale” (Auer et al. 2018: 4).

We find the highest relative call-back rates in the secondary level occupation as sales assistant, indicating a considerable gap between majority and minority candidates. This result might point to Becker's theory (1957) of taste-based discrimination, which predicts higher discrimination rates in jobs involving customer contact. Andriessen et al. (2012) also find most discrimination in the retail trade in the Netherlands; they designed their experiment specifically to study the impact of customer contact. They do find some evidence for customer discrimination, but conclude that relatively little of the discrimination observed can be attributed solely to this phenomenon.

In tertiary level occupations discrimination is lowest; the difficulty in finding qualified personnel might make employers more inclined to overlook criteria, such as group membership, and concentrate more on qualifications (Andriessen et al. 2012). According to ethnic conflict theory, this situation should lead to lower levels of competition and hence reduced discrimination. Lower discrimination rates are expected especially for the nursing profession, which is characterised by widespread labour shortage in Switzerland. Nevertheless, the experiment points to one unique case of hiring discrimination at the tertiary educational level, affecting Swiss nurses with a Kosovar background. This finding supports the hypothesis of an especially strong negative attitude towards this ethnic group.

7.2 Ethnic Hierarchies

The study documents different degrees of exposure to discrimination among the offspring of the tested immigrant groups; it thus highlights the existence of a differentiated intergroup bias towards the various outgroups, designing ethnic hierarchies. "In such *ethnic hierarchies*, the ethnic in-group is typically ranked first (most preferred) and ethnic out-groups are ranked in a specific order further down" (Andriessen et al. 2012: 243, emphasis in the original). Ethnic hierarchies reflect the majority perception of threats rooted in two types of factors. On one side, cultural factors like immigrants' degree of similarity in values and, on the other side, economic factors like their social status and their qualifications (Bobo and Hutchings 1996; Hagendoorn 1995). Ethnic ranking of immigrant groups mirrors majority attitudes towards minorities. Andriessen et al. (2012) also refer to Snellman (2007), who argues that discrimination gets more pronounced the lower the standing of an ethnic group is in the ethnic hierarchy.

Our correspondence test on apprenticeship level occupations points towards a clear disadvantage for Swiss citizens of Kosovar descent. Research on attitudes towards (first generation) immigrants in Switzerland reveals a consistent pattern of ethnic hierarchy: groups from the Balkan region are confronted with the least favourable attitudes followed by Turks, while European Union citizens are usually considered favourably (Auer et al. 2018; Binggeli, Krings and Sczesny 2014; Hainmüller and Hangartner 2013; Raymann 2003; Ruedin et al. 2013). Other studies document the relevance of the religious category of Muslim as a target of negative attitudes (e.g. Helbling 2010). The differences between the ethnic groups in our experiment are only partially in line with the expected order from the ethnic hierarchy: therefore, further investigation about the position of Turkish-origin applicants and the negative score for EU citizens is needed.

Although hierarchies are specific to a place and probably time, it is worth underlining that in European studies Turkish-origin immigrants and their offspring do not appear as the most targeted group by hostile behaviour in hiring, according to meta-analyses of correspondence testing research

(Rich 2014; Zschirnt and Ruedin 2016). An experimental study in the Netherlands also finds that, after controlling for individual characteristics, ethnic penalties in unemployment are smaller for Turkish than for Moroccan second generation applicants (Andriessen et al. 2012).

The role of the media and the way minorities are politicised in public debate plays an important role in the perception of minorities (Brug et al. 2015). “The mediatised debate provides and reinforces stereotypes that can be used as shortcuts in statistical discrimination” (Zschirnt and Ruedin 2016: 1118) or affect taste-based discrimination (Pecoraro and Ruedin 2016). While both non-EU groups tested in our study share a Muslim background, a hypothesis that might account for the Turkish case in the Swiss labour market is that public debate has focused very little on the Turkish immigrant group representing about 3% of the foreign population in the country in 2017. Such a hypothesis needs further investigation.

A closer look at the features taken by hiring discrimination for applicants with an EU background in our experiment shows that it does not extend to both EU-origin groups tested, the French and the Germans. The result is due to a rather specific constellation of factors: it is attributable to German-origin candidates in the German-speaking part of the country for one precise trade, sales. As a matter of fact, in all other positions German named candidates face no discrimination or are even preferred to the Swiss candidates. Among EU citizens in Switzerland, Germans do not enjoy a favourable image. Citing a study by Stolz (2005: 558-559), Helbling indicates that negative attitudes towards foreigners from South European countries and France do not exceed 5 per cent while around 11 per cent find that Germans are little or not at all “likeable” (Helbling 2010: 7).

In her dissertation, Zschirnt discusses this issue thoroughly: “While readers who are not familiar with the Swiss context might find this result puzzling, work conducted by Helbling (2011) in the city of Zurich as well as research by Matser et al. (2010) have shown negative attitudes towards German immigrants. Both argue that in the face of many similarities the minor differences between Germans and Swiss Germans are strongly emphasised. The fact that we find higher relative call-back rates for Germans applying for sales positions, could also be due to perceived language skills (dialect) and/or expected customer discrimination. Since all sales positions involve customer contact, employers might expect German candidates to speak only high-German and not the Swiss German dialect, which could be regarded as negative by Swiss customers. However, since all candidates had completed their education in Switzerland, where the local dialect is also spoken in schools, they should be expected to be proficient in the local dialect. (...) As Krings et al. (2014) have shown, the Swiss perceive Germans as highly competent, but lacking in warmth. This might be beneficial for the positions of electricians, nurses, or HR clerks, while the lack in warmth might contribute to the high discrimination these candidates experience in the sales positions. Interestingly, a preference for German candidates even before national candidates also seems to emerge from research on labour market discrimination in the Netherlands suggesting that German applicants might benefit from positive stereotypes in the labour market (Philippen and van Eldert 2017).” (2018: 217).

7.3 Regional Differences

Two sets of factors may influence discrimination: attitudes and the political environment surrounding the issue of immigration on the one hand, and the labour market situation on the other.

Rather negative attitudes and an unfriendly political environment are associated with higher minority discrimination (Blommaert, Van Tubergen and Coenders 2012; Quillian 2006). On this basis, differences could be expected, with higher discrimination rates in less immigrant friendly regions. On the other hand, lower unemployment rates are signs of labour shortages, and could be considered conducive to lower minority discrimination (Baert et al. 2013), although empirical evidence does not always support this hypothesis (Carlsson et al. 2018; Zschirnt and Ruedin 2016).

Attitudes towards immigration (Ackermann and Ackermann 2015; Green et al. 2011), votes on immigrant related issues (Manatschal 2015) as well as unemployment rates (SECO 2018) are dimensions differentiating the two main Swiss language regions: the German-speaking region presents a less immigration friendly attitude and political environment while it experiences a lower unemployment rate. All these studies are fraught with difficulties as we are dealing with differentiating between language regions, missing variables, and technical issues like translation effects or differences in social desirability. The field experiment is not completely free from these problems either, but the focus on behaviour can overcome many of these differences.

Countervailing forces presumably explain the absence of noticeable regional differences. If anything, the gap in relative call-back rates, barely significant ($p > .1$), tends to be lower in the German-speaking than in the French-speaking region. Indeed, applications from both majority and minority receive a more positive response in the former area, characterised by a lower unemployment rate.

7.4 New Insights into Hiring Discrimination in Switzerland

Hiring discrimination affecting Swiss educated offspring of immigrants was also studied in a correspondence testing experiment in the early 2000s (Fibbi, Kaya and Piguet 2003). How does the present research modify our knowledge of ethnic ranking and regional differences?

The previous study concerning entry-level jobs requiring upper secondary education showed a clear ethnic ranking, placing Kosovar-origin applicants in the most unfavourable position, followed by Turkish-origin candidates, while the tested EU-origin group, the Portuguese, appeared the least affected by unequal treatment. The present study shows convergent evidence of a higher exposure to discrimination of Kosovar-origin candidates in comparison to Turkish-origin applicants. At the same time, it reveals that Turkish-origin applicants are often in a comparable position to EU-origin candidates, who are specifically targeted in one particular trade as sales assistants.

The 2003 study documented comparable discrimination rates across regions when looking at maximal discrimination rates⁷. In the same vein, the present research shows comparable results in the two language regions of the country, and possibly a more minority favourable situation in the German-speaking region. On the whole, results point to no substantive regional differences.

The comparison between the two studies must be taken with caution: while they use the same basic methodology, there are some relevant differences in the design. They both test jobs requiring an apprenticeship, yet in the present study observations are concentrated on two occupations while in

⁷ According to the ILO methodology (Bovenkerk 1992), the maximal discrimination rate includes also the cases where both candidates are invited to a job interview yet the second applicant is invited only after the first declined a similar invitation.

the previous study applications were sent for all sorts of trades. In the previous study, application packages consisted of a CV and a motivation letter whereas now they also included pictures and diplomas, providing the employers with more extensive information. The EU-origin group tested then were Portuguese while now these groups are from neighbouring countries. Finally, the legal and social status of fictitious candidates differed to a certain extent. In the previous study they appeared as born abroad, holding a foreign nationality and a long-term residence permit but having followed Swiss schools all the way through; in the present study fictitious applicants are portrayed as Swiss citizens, holding dual nationality and having been schooled entirely in this country.

A comparison of the net discrimination rates in the two studies shows a flattening of the ethnic hierarchy. It could be attributed to very different factors: on one side, the improved legal status of the minority candidates as Swiss citizens, as a consequence of their longer presence in the country affecting their acceptance; on the other side, it could be a consequence of a greater amount of information provided to employers by candidates, reducing statistical discrimination. The research design does not allow us to elaborate further; new research is needed in this field.

Two further results concerning the structure of the ethnic ranking are especially salient. First, the significant discrimination attested for Swiss candidates of EU-origin is unexpected on the basis of cultural distance considerations as well as socio-economic position. And second, the result attributable to unequal treatment of candidates with German background in one specific trade.

The second striking finding concerns the position of Swiss candidates of Turkish-origin in the Swiss ethnic ranking, where they appear placed close to EU-citizens. Further research is needed to assess the robustness of this trend. Diachronic comparisons of discrimination rates are rather rare in the literature. Zschirnt and Ruedin (2016) find no changes over time at the aggregate level. One study documents a decline in discrimination rates for Latinos in the US (Quillian et al. 2016); yet, considering the empirical evidence insufficiently broad, it waives further exploration of the magnitude and the mechanisms behind this trend. Changes in the perception and declining ethnic disadvantage are documented in the literature (Alba and Foner 2015; Fibbi 2018; Guglielmo 2003; Ignatiev 1995), yet over a longer period of time.

7.5 Swiss Results in an International Perspective

The relative call-back rate of 1.3 resulting from the Swiss experimental study indicates that minority candidates have to send 30% more applications than majority candidates in order to pass the first yet crucial stage of the hiring process and be invited for a job interview. To assess the relevance of this research result, we put it in perspective with international studies. We resort in particular to meta-analyses, i.e. quantitative reviews of the findings of independent empirical studies on the same topic using the same methodology with the purpose of providing a synthetic overall result.

Two recent meta-analyses are useful for our purpose. Combining the findings of 43 different studies on hiring discrimination against ethnic minority groups conducted in OECD countries between 1990 and 2015, Zschirnt and Ruedin (2016) report a mean call-back rate of 1.6. Moreover, observing that the relative call back rates in German speaking countries are often lower in international comparison, they suggest that the finding may be attributed to the comprehensive

information of the standard application files received by the employers which reduces the likelihood of statistical discrimination in hiring. In the second meta-analysis Quillian et al. look at 28 experimental studies conducted between 1989 and 2015 on hiring discrimination against African Americans or Latinos in the US labour market, and observe that “white applicants receive 36% more call-backs than equally qualified African Americans and (...) on average 24% more call-backs than Latinos” (2016: 2).

Such comparisons show that hiring discrimination against immigrant-origin Swiss citizens reaches a substantial level, comparable with that found for Blacks in the US. While it is not as high as the mean observed in the OECD countries, which generally focus on ‘problematic’ groups, it should be kept in mind that the Swiss average includes also immigrant-origin groups from neighbouring European countries, which are usually not included in the choice of the groups in other correspondence tests. Zschirnt and Ruedin observe that the reported rates of discrimination in the studies included in their meta-analysis “may thus overestimate the extent of discrimination”, due to the choice of minority groups studied (2016: 10).

7.6 Limitation of the Study

Correspondence testing is often claimed to be the best method to measure discrimination; yet it does so with a number of limitations that entail an underestimation of the overall hiring discrimination. On the one hand, it focuses on the very initial stage of the job-seeking process, yet it captures 90% of the discrimination occurring at this stage of the hiring process (Rich 2014; Riach and Rich 2002). Furthermore, a recently published meta-analysis of audit studies in the US indicates that discrimination is much higher when it comes to job offers at the interview stage (Quillian et al. 2018). Correspondence tests thus present a minimum rate of discrimination. Furthermore, correspondence tests can take into account only publically announced vacancies, a fraction of the all the job openings, excluding informally or internally filled positions. The method is suitable only for written applications, thus excluding many entry-level and unskilled jobs, although this is less of an issue in the formalized job market in Switzerland.

On the other hand, the study assesses discrimination of specific groups in specific occupations, while acknowledging that this evidence is not sufficient for a generalization to the whole labour market. The experimental design allows us to control for the compositional differences in the labour supply (i.e. the candidates’ characteristics) to isolate the variable whose impact is to be tested. But it does not uncover demand side mechanisms, i.e. employers’ hiring behaviour. “Determining which characteristics influence hiring decisions would require the researcher to know not only the successful candidate but also the entire applicant pool” (Auer et al. 2018: 10). Moreover, while the method focuses on the assessment of discrimination it neglects the motives and the mechanisms (Reskin 2003). Research with other methodological approaches is necessary to better grasp how hiring discrimination is produced in everyday working life.

8 Summary and Conclusions

Today, field experiments are considered as “the gold standard” when it comes to measuring discrimination in the market place. More than 15 years after the first assessment of hiring

discrimination in Switzerland it was necessary to take stock. The experimental study conducted in 2017-18 in the two main language regions aimed at assessing and measuring the hiring discrimination of Swiss citizens of immigrant origin, educated in the country and holding Swiss qualifications. The findings show significant differences in the chances of applicants passing the first crucial selection phase of the recruiting process, namely the invitation to a job interview, depending on their parents' country of origin. The extensive application files, a standard in this country, provide employers with far-reaching information, which should moderate statistical discrimination. Assessing discrimination among Swiss citizens, who are equally educated and skilled, on the basis of their ancestry, the experiment's results make the case that some of this discrimination could be attributed to taste-discrimination.

Hiring discrimination for occupations requiring an upper secondary level of qualification concerns mostly applicants whose parents came from a non-EU country and reveals a systematic ethnic hierarchy. Swiss candidates with a Kosovar background face the highest, statistically significant discrimination across occupations and regions. On the contrary, Swiss applicants of Turkish origin experience the lowest, statistically non-significant, hiring discrimination. Less expectedly, hiring discrimination affects also applicants whose parents came from EU neighbouring countries. German-origin candidates experience the highest discrimination rate in one specific occupation and the lowest in other occupations. Regional comparison on upper secondary level occupations shows that hiring discrimination is clearly a reality in both regions, revealing similar ethnic hierarchies.

In the German-speaking region, fictitious candidates applied for jobs both at an upper secondary and at a tertiary level of qualification. The comparison shows significant lower risks of unequal treatment in occupations requiring higher qualifications for applicants with a German background, while other minority candidates do not seem protected by education attainment. Here, the matching hierarchies model finds fresh confirmation.

The number of correspondence tests on hiring discrimination has increased sharply since 2000, showing that this issue has become a widespread concern, not only in Europe or North America. Field experiments have now been conducted in almost all of the EU15 countries, as well as Switzerland and Norway. In all those countries children of immigrants are increasingly coming of age and are confronted in the labour market with inequalities that can no longer be attributed to migrants' deficits, as was the case for their parents.

Switzerland is no exception to this trend of a rising "second generation" and of more stringent evidence of its unequal treatment in the labour market. Similarly, while reflecting the ethnic composition of the immigrant-origin resident population, the ethnic ranking observed in Switzerland echoes findings in other European countries. However, contrary to other European countries, there is no acute awareness of this issue in Switzerland. The relatively low unemployment rate in international comparison may make hiring discrimination less visible, to the extent that it does not necessarily lead to unemployment, as is the case elsewhere. Trajectories of children of immigrants from the Balkans and Turkey (Schnell and Fibbi 2016) do not show long unemployment spells; qualitative fieldwork on those trajectories reveals, however, heavy job-search phases with numerous applications and a certain perception of discrimination in accessing the vocational and professional labour market.

The findings of this experimental study suggest the need for further research to close some gaps. Studies on attitudes towards “outgroups” have recently enlarged their focus to “racial” and religious groups, but ethno-national groups became a blind spot; the evolution of attitudes over time has also been neglected. Moreover, analyses usually concentrate on first generation immigrants and little is known on stereotyping and attitudes towards their offspring. Furthermore, the assessment of hiring discrimination towards well-established groups with an immigrant background calls for research designed to uncover demand-side mechanisms underpinning employers’ hiring behaviour. At the meso level, analysis of work organisation within the firms (Baron and Bielby 1980) could contribute to explain the occupational variations that emerged from this study and develop an understanding of the link to segmentation and stratification.

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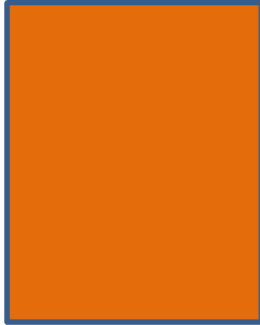
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Appendix

Figure 1: Example of CV and the cover letter of the Swiss-origin candidate

Pascal Kälin Adresse [redacted] strasse 30, [redacted] Zürich Telefon [redacted] 079 [redacted] Email [redacted] h@gmail.com Geburtsdatum 20.05.1996 Zivilstand Ledig Nationalität Schweiz Mobilität Führerschein (Kat B), eigenes Auto verfügbar		
Kompetenzprofil <i>Verkäufer mit EFZ im Detailhandel und zweijähriger Berufserfahrung im Hochpreissegment. Flexibel einsetzbar, zuverlässig, verantwortungsbewusst und selbstständig mit Freude am Umgang mit dem Kunden.</i>		
Arbeitserfahrung 07/2015 - heute Detailhandelsfachmann EFZ [redacted] - Kundenberatung und Verkauf - Warenpräsentation - Warenauszeichnung - Kassenbedienung - Diverse organisatorische Aufgaben 08/2012 - 06/2015 Auszubildender [redacted] Auszubildender zum Detailhandelsfachmann im Bereich „Nahrungs- und Genussmittel“		
Ausbildung 08/2012 - 06/2015 Berufsschule [redacted] Eidgenössisches Fähigkeitszeugnis „Detailhandelsfachmann/-frau EFZ“, Schwerpunkt Beratung 2009 - 2012 Sekundarschule, Zürich		
Sprachkenntnisse Deutsch Muttersprache Englisch B1 – Konversationssicher in Wort und Schrift Französisch A2 – Erweiterte Grundkenntnisse		
IT Kenntnisse MS Office Gute Kenntnisse, besonders Word, Excel und PowerPoint SAP Grundkenntnisse im Anwenderbereich		

Pascal Kälin
[REDACTED] strasse 30
[REDACTED] Zürich
079 [REDACTED]
[REDACTED]@gmail.com

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Zürich, 07.12.2017

Bewerbung als [REDACTED]

Sehr geehrte Damen und Herren,

mit grossem Interesse bewerbe ich mich auf die von Ihnen ausgeschriebene Stelle als [REDACTED]

[REDACTED]

Auf Grund eines Umzugs suche ich nach einer neuen beruflichen Herausforderung und nach der Möglichkeit meine Fähigkeiten weiter auszubauen. Als Verkäufer bei [REDACTED] habe ich in den letzten Jahren Erfahrung im Umgang mit Kunden in Beratung und Verkauf sammeln können. Ansprechende Warenpräsentation erledige ich genauso selbstverständlich wie die Kassenbedienung oder organisatorische Aufgaben.

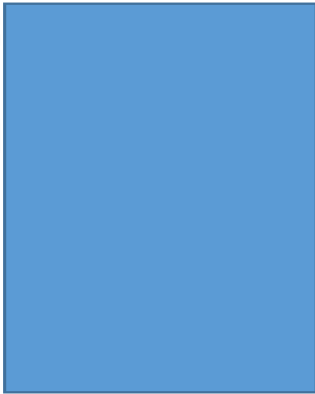
Persönlich zeichne ich mich durch meine stets freundliche und aufgeschlossene Art, meine selbständige Arbeitsweise und mein Verantwortungsbewusstsein aus. Meine Flexibilität und Teamfähigkeit schätzen meine Kollegen sehr.

Ich freue mich Sie in einem persönlichen Gespräch kennenzulernen.

Freundliche Grüsse

Pascal Kälin

Figure 2: Example of the CV and the cover letter of the immigrant descent candidate



Cem Yilmaz

Adresse [redacted] weg 19, [redacted] Bern

Telefon 079 [redacted]

Email [redacted]@gmail.com

Geburtsdatum 01.04.1995

Zivilstand Ledig

Nationalität Schweiz, Türkei

Mobilität Führerschein Klasse B, eigenes Auto verfügbar

Kompetenzprofil

Detailhandelsfachmann mit EFZ und drei Jahren Berufserfahrung. Freundlich, motiviert mit Freude am direkten Kundenkontakt. Belastbar, freundlich und verantwortungsbewusst. Erfahrung mit wechselnden Dienstzeiten.

Arbeitserfahrung

07/2014 – heute **Detailhandelsfachmann EFZ**
[redacted] Bern

- Kundenberatung und Verkauf
- Warenpräsentation
- Warenauszeichnung
- Kassenbedienung
- Diverse organisatorische Aufgaben

08/2011 – 06/2014 **Auszubildender**
[redacted] Bern

Auszubildender zum
Detailhandelsfachmann im Bereich
„Nahrungs- und Genussmittel“

Ausbildung

08/2011 – 06/2014 **Berufsfachschule des Detailhandels, Bern**

Erfolgreiche Ausbildung zum
„Detailhandelsfachmann EFZ“ mit
Schwerpunkt Beratung und
eidgenössische Berufsmaturität mit
Ausrichtung Wirtschaft und
Dienstleistungen

2008 – 2011 Sekundarschule, Zürich

Sprachkenntnisse

Deutsch	Muttersprache
Türkisch	Muttersprache
Englisch	B1 – Konversationssicher in Wort und Schrift
Französisch	A2 – Erweiterte Grundkenntnisse

EDV Kenntnisse

MS Office	Gute Kenntnisse, besonders Word, Excel und PowerPoint
SAP	Grundkenntnisse im Anwenderbereich

Cem Yilmaz
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[redacted] Bern
079 [redacted]
[redacted]@gmail.com

[redacted]
[redacted]
[redacted]
[redacted]

Bern, 07.12.2017

Bewerbung als [redacted]

Sehr geehrte Damen und Herren,

gerne bewerbe ich mich auf die Stelle als [redacted], die Sie auf job-room.ch
ausgeschrieben haben.

Ich suche schweizweit nach einer neuen Herausforderung und bin auch gerne zu einem
Wohnortwechsel bereit. Ich freue mich bereits darauf ein neues Arbeitsumfeld und neue Kollegen
kennenzulernen und so meine Fähigkeiten weiter zu entwickeln. Während meiner aktuellen Tätigkeit
habe ich besonders in der Kundenberatung und im Verkauf gearbeitet, doch auch Warenpräsentation
und Kassenbedienung übernehme ich selbstverständlich gerne.

Im Umgang mit Kunden zeichne ich mich durch meine offene und freundliche Umgangsform sowie
meine Flexibilität und Belastbarkeit aus. Darüber hinaus arbeite ich sowohl selbstständig als auch
gerne im Team.

Auf Ihre baldige positive Rückmeldung freue ich mich.

Freundliche Grüsse

Cem Yilmaz