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Abstract

This article considers the possibilities and limits of human-capital credentials in entering the labour market for immigrants in Finland. It reports findings of a correspondence study on how employers respond to job applicants of five different backgrounds who were otherwise equivalently matched on various demographic and human-capital characteristics. The findings strongly indicate the continuing salience of ethnicity in securing employment opportunities in the Finnish labour market. Employers significantly prefer Finnish applicants over ethnic candidates, and within ethnic applicants they prefer candidates with a European name over a non-European name. They further show that locally acquired human capital provides a better pay-off only when the job candidate belongs to a group that is placed higher on the ethnic preference ladder. Drawing on the empirical observations, the article thus suggests that a recruitment process driven by abstract or impersonal criteria and governed by mere considerations of human capital in real-life situations is much less prevalent than often claimed.

Introduction

European societies have increasingly become more multicultural as the proportion of the population from diverse cultural backgrounds has risen steadily for the past many decades. This diversity is also reflected in the sphere of the labour market where the share of workers with a migration background has increased significantly. Notwithstanding this rise in their labour-market participation, a large body of scholarship involving field experiments conducted in multiple national contexts suggests that job seekers of ethnic origin face considerable barriers in gaining access to employment opportunities (e.g., Weichselbaumer 2015; McGinnity and Lunn 2011; Carlsson 2010; Drydakis and Vlassis 2010; Heath and Cheung 2007; Fibbi, Lerch and Wanner 2006; Sole´ and Parella 2003; Darity and Mason 1998). The disadvantaged status of immigrants can be observed across a range of labour-market indicators including job promotion, periods of employment and unemployment, job prestige, wages and permanent or temporary employment contracts (e.g., Uhlendorff and Zimmermann 2014; Andriessen et al. 2012). Similarly in Finland, the labour-market performance of immigrants has been reported to lag behind the Finnish population. Although their employment situation has been indicated to improve over the years, the differences in various indicators still persist. For example, in Helsinki which hosts a large number of people of foreign origin, the unemployment rate of immigrants in 2016 stood at 17%, which was more than two times higher than that for the native population (Saukkonen 2017). Immigrants are also often employed in jobs incommensurate with their qualifications (e.g., Myrskylä and Pyykkönen 2014). Many of them, especially from developing countries, are concentrated in the retail trade and service sectors, where they are commonly employed on short-term and part-time employment contracts (see Sutela 2014).

To account for their disadvantages in the Finnish labour market, previous studies on immigrants' economic mobility in Finland have identified a number of factors that are said to affect their quantity and quality of employment opportunities. The factors frequently cited include insufficient Finnish-language proficiency, lack of Finnish education and work experience, lack of Finland-specific cultural competence and informal capital, lack of ethnically diverse social networks and lack of recognition of qualifications earned abroad (e.g., Koivunen, Ylöstalo and Otonkorpi-Lehtoranta 2015; Nieminen 2014; TEM 2012; Huttunen and Kupari 2007; Pehkonen 2006; Ahmad 2005; Forsander 2002). Immigrants who migrated to Finland based on family reunions and humanitarian grounds or during periods of economic recession

are also said to be at a disadvantage (e.g., Eronen et al. 2014; VATT-työryhmä 2014). There are also significant differences amongst various immigrant groups, with immigrants from Asia and Africa typically suffering from greater employment disparities with respect to the Finnish population.

In order to facilitate immigrants' transition into the labour market, the labour authorities in Finland have introduced several measures, as their labour-market integration has been viewed as the main avenue for their social inclusion into the Finnish society. These efforts have commonly started off by directing various language and vocational training measures at immigrants, as they have largely been perceived in terms of lacking in human capital. While these measures are self-evidently indispensable for enhancing their employment prospects, an exclusive emphasis placed on improving immigrants' marketable skills alone may also run the risk of losing sight of other factors that may as well depress their labour-market performance. The study reported in this article specifically explores the possible role of one such factor namely employers' discriminatory recruitment practices in generating labour-market inequality. Investigating these practices is imperative since in order to find out why immigrants are not performing at the same level as the natives, it is important to study not only those who are employed or unemployed but also the decisions of the people who control the vacancies (Bursell 2007).

However, the task of measuring to what extent immigrants' lack of employment opportunities can be attributed to employers' discriminatory practices is a challenging one: how to establish it unequivocally that a job seeker has been rejected unfairly, and not because of deficiency in required qualifications for the vacancy applied for? One of the methods often adopted to reveal and measure discrimination has been to compare wages and occupational mismatch of immigrants and the majority population, by statistically controlling for human-capital credentials such as education, work experience and proficiency in the host language. The differences thus observed are suggested to stem from discrimination. However, this method may not fully reliably measure discrimination due to the problems linked to the measurement of differences in human capital accurately. For example, as Gaddis (2015) points out, if human capital is not properly measured and there are mean differences in human capital between immigrants and the majority population, the effect of the omitted variable i.e. human capital can be incorrectly ascribed to discrimination.

To overcome these problems, scholarship on labour-market inequality has increasingly resorted to research methodologies involving field experiments to uncover discrimination. In this regard, one of the approaches adopted to investigate ethnic discrimination is called correspondence method (see Rich 2000), which uses correspondence or written tests to measure labour-market discrimination. Pairs of fictitious applicants send identical curriculum vitae containing equivalent education, work experience and other personal characteristics such as age, marital status and hobbies to the advertised positions. To all intents and purposes, the pair of applicants are equivalent except for the basis of discrimination, that is, ethnicity. The applicants' ethnicity in CVs is signalled through carefully chosen popular names that provide a strong clue about an applicant's ethnic affiliation. Correspondence method is considered the best methodological tool to objectively measure discrimination, since all the relevant variables can be controlled in fictitious CVs[3].

Employing the correspondence method, the study reported in this article has tested the employment chances of job seekers of Finnish, English, Iraqi, Russian and Somali origin in the Finnish labour market. The study aimed to pursue a number of objectives. First, it attempted to uncover systematically whether, and to what extent, there is discrimination against immigrant

workers in accessing the labour market, by comparing the callback rates received by the five groups. Second, the study sought to investigate whether ethnic penalties vary for different immigrant groups. Do, for example, non-European immigrants face higher levels of unfavourable treatment from employers in selection procedures than their European counterparts? Unlike many previous studies, it also explored the interaction effect of gender and ethnic background, by investigating whether female jobseekers from different immigrant groups encounter different levels of treatment than male job applicants of the same group. Third, the study sought to examine whether the occurrence of discrimination varies in different job sectors.

Contribution of the Present Study

The present study contributes to and extends previous scholarship in three important ways:

First, it adds to our knowledge of immigrants' labour-market situation in Finland by using the correspondence method for the first time. In Finland, where immigration has predominantly started in the 1990s, studies on immigrants' labour-market discrimination are relatively lacking. Previously, only two studies have used field experiment techniques to report the occurrence of discrimination in recruitment practices. The first study by Ahmad (2005) used the participant-observation method, but it was not a situation testing study in the strict sense of the term as the researcher used a control group only in a partial set of cases. The second study by Larja et al. (2012) employed the situation testing method to investigate labour-market discrimination. However, the utility of the findings of their study are also restricted due to a number of reasons. First, their study focused on just one ethnic group namely Russians. The present-day Finnish labour market is much more heterogeneous in nature, and concentrating only on a single group may not permit the generalisation of the findings to other groups sufficiently. Secondly, their study focused on only a European immigrant group, which is rather problematic, given the well-known fact that there are two types of immigrants – European and non-European – who may be perceived quite differently in a European society. This is especially valid in the case of Finland where multiple surveys (e.g., Jaakkola 1999, 2005) have revealed that immigrants from European countries occupy a much higher place in the ethnic hierarchy than their non-European counterparts, who are often perceived as job takers, if not a burden on social welfare, in the public imagination. Thus, in contrast to the above mentioned study, the present study has included five immigrant groups – both European[1] and non-European.

Second, the present study also goes beyond a standard practice of two-race models of discrimination by considering five groups instead. Third, in previous correspondence studies, typically two equivalent job applications have been sent out to employers for an advertised position – one with a native-sounding name and one with an immigrant-sounding name – even if more than two ethnic groups were included in the experiment[3]. Breaking from this general pattern, the present study has simultaneously tested the employment chances of five different groups against the *same* job opening. This choice serves one major benefit: not only does it show the probability of securing a job interview offer for some immigrant applicant against the native one, it also demonstrates the relative chances of receiving an interview offer amongst the ethnic candidates themselves vis-à-vis the same job. According to the author's knowledge, this is the first study to date that has simultaneously tested the employment chances of five groups in this manner. In addition, the present study is also quite large-scale in nature, consisting of 5000 job applications, thus affording us comprehensive quantitative analyses.

Theoretical Background

In labour economics, several theoretical perspectives have been employed to explain the economic structure and differential outcomes in the labour market, the most significant amongst which have been neoclassical and segmented labour market approaches. Both these paradigms often exhibit relatively different points of departure with various subtleties of thought and premises in considering various issues including the sustained income inequality, discrimination, labour market structures, and unemployment. These theoretical explanations are important not only in their own right, but also because they suggest different policy prescriptions for dealing with these issues.

Neoclassical theory assumes that labour markets are undifferentiated arenas in which individuals can freely make a choice amongst a broad spectrum of job options, based upon their personal skills, tastes and preferences. Differences in rewards and employment rates amongst individuals and social groups are attributed largely to differences in the human-capital endowments or personal attributes of these individuals and social groups. Similarly, their position within the socio-economic hierarchy is viewed as representing their productive potential or worth. As a result, the remedy often suggested for improving their market performance and eliminating differential outcomes is to improve the supply-side dimension of the labour market, to provide workers with more marketable skills, with an emphasis placed on public investments in general training and on private investments in specific training (Becker 1957). The basic insight of the neoclassical theory is that both workers and employers are rational agents who exercise free and informed choices in a competitive, open labour market setting characterised by the full access to information by both actors. The final contract that takes place between the employers and the labour force participants is rational and contingent upon the personal skills and qualifications of those individuals (supply side) and the relative requirements of employers regarding the specific combinations of skills and qualifications of labour (demand side).

In the neoclassical model, the explanations for the discriminatory practices in employment have been described either as instances of subjective bigotry or as signs of deficient human capital. In this regard, two main types of discrimination have been distinguished: pure and statistical. In pure discrimination, employers, co-workers, or consumers belonging to the majority group are said to have a 'taste' for discrimination and they will pay a premium to avoid members of another group (Kirschenman and Neckerman 1991). For example, in the case of co-worker discrimination, majority workers ask for greater wages to work along with minority workers, while, in the case of customer discrimination, businesses are claimed to discriminate not because of their own bigotry but because of their clients' bigotry (Darity and Mason 1998). In the pure discrimination model, minority workers can thus still encounter discrimination even if they possess comparable qualifications and skills as the majority workers. In contrast, in the statistical discrimination model, imperfect information about workers' true productivity, rather than prejudice, comprises the rationale behind employers' discriminatory practices. When faced with uncertain situations, employers are said to rely on their stereotypes or generalisations in their recruitment decisions, and they may use race, skin colour or group membership as a proxy for aspects of productivity that are relatively expensive or impossible to measure (Kirschenman and Neckerman 1991; Phelps 1972). In other words, in statistical discrimination, employers' reluctance to recruit immigrant or minority workers does not stem from their unwillingness but, rather, primarily from lack of information about the human-capital endowments of these workers.

Both pure and statistical approaches to discrimination as the cause of unequal access to the job market for different racial and minority groups have been criticised by the proponents of the

segmented labour market theory. They argue that, even taken together, these explanations for employers' discriminatory practices do not substantially address the causes of discrimination as proposed by the neoclassical theory. For instance, in the case of black Americans, Lafer (1992) regards such practices as providing an economic rationale for employers to exploit cheap labour. Secondly, he further ascribes such practices to the subjective motives of employers which are not fully captured by the notion of white employers' 'taste' for discrimination. Instead, he suggests that employers carry out such practices not just because of "a personal preference but as a much deeper enactment of socially defined roles." Portes and Zhou (1992) also argue against the human-capital model for its exclusive emphasis on individual skills that does not address the question of why the rewards to the human capital of certain groups are consistently lower while some other groups are over-rewarded.

Contrary to the neoclassical idea of a unitary competitive market, the segmented labour market theory claims that the market is bifurcated into two sectors: primary and secondary. The returns on human capital differ markedly in these two segments because of the institutional constraints that prohibit individuals and various social groups from benefiting equally from their skills and qualifications. The jobs in the primary sector are characterised by good working conditions, opportunities for career advancement, employment stability and high negotiated wages. In contrast, the secondary sector is marked by employment instability, low wages and few opportunities for upward mobility, poor working conditions and high labour turnover. It is argued that minorities, women and other vulnerable groups are more likely to start their careers in the secondary sector because of discrimination, with little chance of being able to break into the primary sector (Gordon 1972). However, the segmented labour theory, has also been criticised for not being able to develop a clear methodology that would consistently produce a specific number of segments, or persuasive criteria for determining the types of segments or the features that differentiate them (Leontaridi 1998). In sum, the essential insight of the segmented labour market theory is that the discrepancy that lies in differential rewards to human capital for certain individuals and social groups and their allocation across occupational hierarchy does not stem from their differential skills and education as such, but may also originate in broad social forces and entrenched institutional rules.

It is possible that none of the approaches discussed above is sufficient in itself to explain away immigrants' differential access to employment chances in their new country, since it arises from the interplay of a number of factors, including the individual characteristics of the job applicants and the demand side of the labour market, in particular the recruitment practices of the employers who control the job vacancies. The role of each of these two factors – job seekers' individual characteristics and employers' practices – may be of lesser or greater relevance in different sociocultural contexts and across different time periods in explaining the lower level of employment opportunities for immigrants. The study reported in this article offered the opportunity to accurately and directly measure the role of the demand side of the labour market in terms of the access it allows to immigrant job seekers in the context of Finland. Before proceeding to the findings, data and method are discussed first.

Data Collection and Research Procedure

The data for this experimental study was collected between June 2016 and March 2017 by answering 1000 job openings that were advertised on the website of the Finnish national employment service. For each position, five job applications that were equivalent in terms of education, work experience and other personal attributes were submitted by fictitious applicants of Finnish, English, Iraqi, Russian and Somali origin. In other words, a total of 5000 applications were sent out to various enterprises. The study had equal gender balance: half of

the jobs were applied for with male and half with female names in each of the five selected groups, but the men and women did not apply for the same job. The large data collected helped to ensure that the findings of the study were systematic and not due to some spurious effects.

Selection of Names

The first crucial step in the correspondence method is to select names that invoke different ethnic backgrounds. In this study, the ethnicity and immigrant background of the job applicants were indicated by carefully chosen ethnically distinguishable names. The names were first picked from various websites that listed the most common English, Iraqi, Russian and Somali names. The names were then later selected by consulting with immigrants of the respective backgrounds. The selected names amply reflected the ethnic affiliation of the applicants. To make it more visible, the name of the applicant appeared in large font at the top of the CV. However, in addition to the names, the ethnicity and immigrant background were also conveyed by explicitly stating the mother tongue of the candidate in the CV, such as Arabic, English, Russian and Somali.

Construction of Fictitious Job Applications

The job application comprised a letter of application and a CV. Five letters, stylistically different but equivalent in terms of content, were constructed for each of the five sectors discussed later. The letters effectively conveyed an impression that the applicant was a motivated, ambitious and affable person. The style and grammar of the letters clearly reflected that the immigrant applicant possessed an excellent proficiency in the Finnish language. The order of assigning letters to the applicants was altered each time they responded to a certain vacancy. The CVs, on the other hand, were randomly created by using a CV generator software. Each time the CV generator created five different but equivalent CVs for the five candidates answering the same job opening. Only the applicants' names, phone numbers and email addresses remained the same throughout the experiment. Thus, in effect, the only respect in which the five applicants differed from each other was in their names. The CVs presented a detailed picture of the applicants' credentials including education, previous job history, level of proficiency in Finnish and English, computer and software skills, and names of educational and professional institutions at which they had received their education and diplomas. They also included information on applicants' age, gender, postal address, phone number, email address, mother tongue and hobbies. All the CVs were equivalent in terms of education, previous experience and professional diplomas. Also, all the ethnic applicants possessed excellent language skills in Finnish.

For any job, all the applicants exactly had the same number of years of experience, the only difference being the variation in the length of their different jobs included in the CV. A rigorous effort was made to ensure that all the fictitious applicants possessed suitable and sufficient experience relevant to the advertised vacancy and their CVs stood out. A considerably high rate of favourable responses was achieved in this study: in 48% of the cases at least one positive response was received. This high response rate, which is in fact amongst the highest response rates obtained in correspondence studies, is reflective of the excellent quality of the CVs. All the ethnic applicants were mentioned to have obtained all their schooling, professional diplomas and work experience in Finland. This conveyed to the employers that they were either born in Finland or had arrived in Finland at an early age. The age of the fictitious applicants varied between 24 and 28 years, who could be considered to be at the start of their employment career. When they responded to the same vacancy, the age difference amongst them varied from

between five months and one-and-a-half years, as all the applicants having the same age in the CVs would have aroused suspicion.

Choice of Occupations

Job openings tested were located in five economic sectors: restaurant and catering, retail trade, cleaning, clerical, and customer service. The majority of the jobs were in the restaurant and catering, and retail trade, corresponding to around 59% and 22% of the total jobs respectively. The greater concentration of these jobs in the data owes primarily to the fact that it was in these two sectors that most of the openings appeared during the course of the experiment. Although it would have been useful to increase the number of jobs in the remaining sectors in the sample, it was not feasible to do so due to the time and financial constraints of the research project.

The vacancies tested in the selected sectors varied from unskilled to medium-skilled and skilled jobs and included, amongst others, positions of cook, waiter, head waiter, kitchen worker, café worker, shop assistant, shop cashier, office assistant, office secretary, receptionist, accountant and cleaner. Both male and female applicants applied for jobs in the restaurant and catering, retail trade and cleaning sectors. However, only female candidates sent applications for positions in the clerical and customer service sectors. The main reason for this choice was to avoid gender bias in the selection process, since office and customer service jobs in Finland, as elsewhere, are often dominated by female workers. Jobs tested were geographically spread all over the major cities in Finland. Jobs were answered on the same day on which they were advertised. The objective behind this preference was to demonstrate a strong interest in the post on the part of the applicant. In order to avoid risk of disclosure, only one job advertisement per enterprise was applied for, in case several vacancies were advertised by the same firm during the period of data collection.

Application Sending and Coding of Employer Responses

In Finland, sending a job application by email is the most common way to respond to a job opening. Also in all the positions tested in this study, the applicants were advised to send their applications via email. All the five job applications were sent out within a period of four hours. The aim was to avoid a situation where some applicant was preferred in the screening process because of the employer having received his/her application many hours or a day earlier than the others. However, to further ensure that some applicant did not accrue any possible advantage in this regard, the order in which job applications were sent out was also altered each time. The employers could contact the fictitious job candidates by email or telephone. The employer calls were not received directly. Instead, a separate voicemail box was set up for each of the applicants, with the telephone service provider's standard message requesting the caller to leave his/her message after the beep. Employers contacted the applicants in three ways: email, telephone or/and SMS. They often used both email and SMS when they wanted to invite them for an interview or when they occasionally required additional information.

A response was classified as positive when the employer invited the applicant to attend an interview. In contrast, a response was recorded as negative if the applicant was formally rejected or received no response from the employer. The issue of whether a negative response or a no-response from an employer to both job applicants is an equal treatment or a non-observation has been discussed by researchers in experimental studies (e.g., Riach and Rich 2002). One could argue that, despite the negative outcome, it is an equal treatment if some enterprise does/does not respond to both candidates, since it has assessed the applications of both candidates. However, there is also the possibility that informing about the rejection is just a

formality as some other candidate has already been selected. Thus, the particular strategy of categorising responses as positive or negative adopted in this study is a useful methodological choice.

The Methods Used for Statistical Analysis

In this article I have used logit models as well as binary or chi square tests to calculate the statistical significance of the differences in the callback rates for the five groups under consideration. A logit model was used in Table 1 and Panel B of Table 4, whereas binary and Chi square tests were employed to calculate the statistical significance in Tables 2, 3 and 4. A logit model is a tool used to analyse connections between a binary dependent variable and a number of independent variables measured on any level of measurement. The coefficient expresses the expected change in the dependent variable when we move one step on the independent variable, either from one category to another or one unit on a continuous variable, when other independent variables are held constant. Thus, a logit model is suitable for causal-type analysis when we want to proceed beyond descriptive analysis, as in the present case. When we have obtained the model, we can give values to each independent variable and get an estimate for the odds of the dependent variable for those values (e.g. no. of callbacks not received divided by no. of callbacks received). Usually, as in the models of this study, instead of the odds, the natural logarithm of the odds (ln(odds)) is given. If we compare the odds for two values of an independent variable, we get the odds ratio showing the change in the odds due to the change on the independent variable. The coefficients of the model give an estimate of the 'real' change in odds when random variation and the influence of the other independent variables have been removed from the observed values of the independent variable. The change is always given in relation to a reference category. In the present analyses, the reference category is the Finnish group, and the greater the coefficient for some group is, the less callbacks the group members receive. The statistical significance (the probability of obtaining the odds ratios given by the model, if the null hypothesis were true) is given by an approximately normally distributed z-statistic.

Results: Is There Discrimination in the Finnish Labour Market?

Callbacks Differentiated by Name and Gender

First, we turn to consider how the five groups under consideration have fared in the Finnish labour market. Table 1 provides a comparison of the callbacks by name and gender after sending out 5000 equivalent job applications by the five applicants, who essentially differed only in their names. In this table, n_i represents the number of callbacks received for each 'i' ethnic group with N=1000 job applications submitted. Thus, the total job applications submitted by all the five groups are N=5000, the half of which were submitted by male and half by female applicants (N=2500), and for each male and female subgroup N=500. The callback rate column describes the percentage responses for each group out of the respective total number of applications submitted, represented by $100 \times n_i/N$.

The logit model was used to obtain the information in Table 1. The null hypothesis is that, as all the job applicants possess identical personal attributes, all the ethnic groups will have the same callback rate as the Finnish group. The null hypothesis is rejected for all ethnic groups. As the aggregated statistics in Panel A clearly indicate, discrimination against applicants of foreign origin is pervasive, although it varies from one group to another. The callback rates differ significantly with respect to different names and the name has a strong statistically significant relationship (p=0.000) with the chances of being offered a job interview. Having a callback rate

of 39%, the applicants with a Finnish name are the most successful in obtaining job interviews. Although all the applicants with an ethnic name have lower callback rates relative to the Finnish applicants, the candidates with an English and Russian name are, however, treated more favourably by employers, with callback rates of 26.9% and 22.8% respectively. Further down the line are the applicants with an Iraqi name, who succeeded in receiving a callback in only 13.4% of the cases. Whilst the Finnish candidates are the most preferred choice for employers, the applicants with a Somali name are the least preferred ones: they were able to move to the interview stage in just 9.9% of all the jobs, despite holding similar human-capital credentials as the other candidates. These findings present a dismal picture of the scope of especially Somali and Iraqi job seekers' employment opportunities in the Finnish labour market. They suggest that, despite its crucial importance, locally gained human capital seems to give a better pay-off only when the job applicant belongs to a group that is placed higher on the ethnic hierarchy. The findings of this study thus corroborate earlier surveys (e.g., Jaakkola 1999, 2005; Suomen kuvalehti 2015[4]) in which English immigrants were amongst the most favourably perceived groups, whereas immigrants of Somali and Arab origin were located at the bottom of the ethnic preference ladder.

Table 1 about here

Do women have more chances of receiving a callback than men? Table 1 throws light on this by splitting the results into male and female applicants in Panels B and C. As can be observed, gender is also a significant factor in securing callbacks: women are invited more often than men across all the groups, but the differences by gender are not different by ethnicity (the interaction term is not needed in the model). Rather, the trends observed earlier in Panel A continue to persist: the applicants with a Finnish name in both male and female categories receive the highest number of job interviews. In contrast, the applicants with an ethnic name lag behind the Finnish applicants considerably, with their callback rates retaining the same order as in Panel A. Within male applicants, discrimination against the Somali and Iraqi applicants particularly appears to be much more severe than the applicants of Russian and English origin: whilst the callback rate for the Finnish candidate stood at 33%, they received an interview offer in merely 6.8% and 9.2% of the cases as opposed to 19.2% and 24.6% by the Russian and English applicants respectively. Although their callback rates remain significantly lower relative to the majority candidate, female candidates with an ethnic name have noticeably more chances of receiving a callback than male applicants of the same group. This seems to hold especially true for the Iraqi and Somali applicants where females secured almost two times more callbacks than males.

The employment rate of immigrant women has been reported to be lower than immigrant men in Finland (TEM 2016). The reasons for this disparity have been attributed mainly to a disproportionate responsibility for childcare between men and women as well as partly to women's lesser participation in language- and vocational-training initiatives. The above observations, however, suggest that with equivalent qualifications, male immigrant job seekers may confront more discrimination in entering the labour market in Finland than female applicants of the same group. In this respect, the findings of this study do not validate the double burden hypothesis (DBH), which claims that, compared to immigrant men, immigrant women will potentially face more discrimination because of their being both immigrant *and* women. Rather, they lend support to the subordinate male target hypothesis (SMTH), according to which male immigrants will suffer greater labour-market disadvantage since they are viewed as more threatening (see, e.g., Sidanius and Veniegas 2000; Berdahl and Moore 2006).

Net Discrimination and Relative Discrimination Rates

Another way to assess the extent of differential treatment meted out to applicants with an ethnic name is to calculate the net discrimination rate. The net discrimination rate is the most commonly employed measure in experimental studies for estimating discrimination. It is defined here as the difference in callbacks between a majority applicant and an ethnic applicant, divided by the sum of cases where at least one of the candidates has received a positive callback. Therefore, cases where no applicant has received a callback or where both have been rejected are excluded as a non-observation. The net discrimination rate indicates how much more often the ethnic candidate is discriminated in comparison to the majority candidate. In other words, it represents the proportion of jobs in which an ethnic applicant faces discrimination. Before proceeding further, it is useful to recall here that the present study has diverged from a standard practice of two-race models of discrimination, in which typically two equivalent job applications have been sent out to employers for an advertised position – one with a native-sounding name and one with an immigrant-sounding name – even if more than two ethnic groups were included in the experiment. In comparison, this study has simultaneously tested the employment chances of five different groups against the *same* job opening. This enables us not only to see the net discrimination between some ethnic applicant and the native one but also to observe the net discrimination between the ethnic candidates themselves vis-à-vis the same job. As combined statistics in Panel A in Table 2 show, when the Finnish and immigrant applicant apply for the same job, the applicants of immigrant origin with a non-European name have a much higher net discrimination rate than those with a European name. For example, the candidates with an Iraqi and Somali name have been discriminated in 62% and 72% of the cases, while the figures for the applicants with an English and Russian name stand at 28% and 38% respectively. When the net discrimination is considered between the ethnic applicants themselves, it is much lower between the European applicants but much higher between European and non-European applicants: for example, between English and Russian candidates, the net discrimination rate stands at 12%, but, for instance, between English and Iraqi and between English and Somali applicants, it corresponds to 45% and 60% respectively. Like the applicants with a European name, the differences between applicants with a non-F name are also lower. When the statistics are disaggregated by gender in Panel B and C, the results essentially follow the same patterns as observed in Panel A. However, baring a single exception of the male applicant with English name, the net discrimination rate stands higher for men than women of the same ethnic group.
Table 2 about here

Still another way to measure the extent of discrimination facing the non-native applicants is to calculate the relative callback rate or the relative chances of being asked for an interview, as provided in row 6 in Table 2. The relative callback rate is a useful measure, as it makes discrimination easier to understand in terms of real events. In other words, it tells how many additional job applications, for instance, an equally qualified ethnic applicant will need to send to obtain an identical number of callbacks as the majority applicant. As Panel A highlights, there are significant differences in relative callback rates between ethnic and majority applicants as well as between ethnic groups themselves. In order to obtain a similar number of job interviews as the majority candidate, a job seeker with an English name will need to submit 1.45 times more, with a Russian name 1.71 times more and with an Iraqi name 2.91 times more applications. The situation facing a candidate with a Somali name appears to be the bleakest, as it will require sending out 3.94 times more applications.

Expressing the same above figures slightly differently, whilst a Finnish applicant received 390 interview offers after applying for 1000 jobs, an English applicant will need to submit 1450,

Russian 1710, Iraqi 2910 and a Somali candidate 3940 vacancies to receive the same number of interview offers as the Finnish applicant. As can be observed further in Panel B, the Finnish employers seem to be especially dismissive towards the male applicants with an Iraqi and Somali name: whilst the Finnish male candidate secured 169 callbacks after sending out 500 applications, in order to obtain an identical number of callbacks they will need to submit 1835 and 2485 applications respectively. In contrast, the male applicants with English and Russian names will need to send out 685 and 880 job applications respectively to receive an equivalent number of job interview offers. The ethnic penalty, thus, seems to be significantly higher for job seekers of non-European origin. Despite possessing comparable locally gained human capital and other personal characteristics, it appears that they will have to struggle much harder to surmount barriers of discrimination in the Finnish labour market.

To what extent are the differences in treatment between different applicants statistically significant? To this end, the last rows in the three panels of Table 2 report significance values. The significance tests were carried out to show the probability that the differences in callbacks are due to actual discrimination rather than having occurred by chance. If the probability of receiving a callback is p and the probability of not receiving a callback is 1-p, properties of the binomial distribution can be used to test the probability of deviations from a null hypothesis. If the population probability of receiving a callback (p) and the sampling distribution of p are known, we can make inferences about the probability of obtaining any probabilities in the sample. If there is no discrimination, the probability of receiving a callback (the proportion of applicants receiving a callback) is the same in both groups being compared. Then, $p_1=p_2$ i.e. the probability is the same in groups 1 and 2. The problem, of course, is that neither the population proportion p nor the standard deviation σ of the sampling distribution of p is known. These, however, can be estimated from the sample. The sample estimate for the probability of applicants receiving a callback in the population is:

$$\hat{p} = \frac{n_1\hat{p}_1 + n_2\hat{p}_2}{n_1 + n_2}$$

where n_i is the number of cases in group i and $\hat{p}$ is the proportion of those receiving a callback in that group. Then, the standard deviation σ of the sampling distribution can be estimated as follows:

$$s=\sqrt{\hat{p}(1-\hat{p})\left(\frac{1}{n_1}+\frac{1}{n_2}\right)}$$

Now, if the null hypothesis is true, the statistics

$$\hat{Z}=\frac{\hat{p}_1-\hat{p}_2}{\sqrt{\hat{p}(1-\hat{p})\left(\frac{1}{n_1}+\frac{1}{n_2}\right)}}$$

is approximately normally distributed and can be used to test the probability of deviations from the null hypothesis assumption of $p_1=p_2$. The null hypothesis assumes the probability of discrimination to be the same for both groups (values on rows 4 and rows 3 in Table 2 to be the same). The p-value was obtained by testing the probability of getting values that differ as much or more as the values on rows 4 and 3. Reverting to the matter under discussion, the differences in net discrimination rate especially between the Finnish applicant and the ethnic applicants are statistically quite significant (p=0.000). This means that the probability that these results would be occurring by chance is less than 0.5%.

Relative Callback Rates Differentiated by Economic Sector

Are some sectors more resistant to immigrants' entry than others, Table 3 provides relative callback rates with respect to the five occupational sectors included in this experimental study.

The trends observed earlier continue to persist. There are considerable differences between the Finnish and ethnic applicants across the five occupational sectors, although in the clerical and customer services sectors these differences are not statistically significant. The lack of statistical significance in the clerical and customer service sectors may also stem from the application of Bonferroni correction as well as from the small number of observations in these sectors due to which even large differences in the sample may also become statistically less significant. As aggregated statistics in Panel A reflect, the relative callback rates between the Finnish and the ethnic applicants are statistically quite significant in both restaurant and catering and retail trade sectors. However, the relative callback rates are much higher for the applicants with a non-European than with a European name. For example, in the restaurant and catering sector, whilst the applicants with a Finnish name received 271 callbacks after applying for 591 job openings, the applicants with an Iraqi and Somali name will need to submit 1667 and 2358 applications, as opposed to the applicants with an English and Russian name who must send 863 and 1016 applications respectively to receive the same number of callbacks as the Finnish candidate.

Table 3 about here

Although discrimination against the Iraqi and Somali applicants is generally quite high in all the sectors, the male applicants belonging to the particular groups are rebuffed by the employers in the retail trade sector to a much greater degree. As Panel B discerns, they will need to submit 11.5 times more and 7.67 times more applications to receive an identical number of job interviews as the majority candidate. In comparison, as Panel C shows, the Iraqi and Somali females are much less discriminated in the retail and cleaning sectors than their male counterparts and their relative callbacks rates are roughly half of those experienced by men in these sectors. However, they will need to apply for nearly two times more jobs than female candidates with a European name to receive an equivalent number of callbacks as the applicant with a Finnish name.

Callback Rates Differentiated by Job Skill Level and Customer-contact Jobs

In the end, we turn to explore whether callback rates differ with respect to different job skill levels as well as whether there is greater discrimination in occupations necessitating employees' contact with customers. First, as can be seen from Table 4, the variation in callbacks received between the three job skill levels within the same ethnicity seems to be insignificant. The chances of receiving a job offer are quite similar across the three skill levels. In order to investigate it further, a logit model was fitted into this table. The model fit was sufficient without the interaction term between ethnicity and job skill level (Likelihood Ratio test value = 6.931, df=8, p=0.544). The lower part of the table provides the details of the effect of job skill level and ethnicity in the logit model. In Panel A, the null hypothesis assumes that for each skill level the callback rates are the same for each ethnic group. In Panel B, where each ethnic group is compared separately with the reference group (the Finnish applicants), the null hypothesis assumes that none of the other groups is different from the reference group. As can be observed, the job skill level is not significant. Rather, what is in fact significant is the ethnicity of the applicant in receiving the callbacks. All the ethnic groups differed significantly from the Finnish group (p=0.00 for all other groups), with the applicants with a Finnish name having a much higher chance of receiving a callback when applying for the same job as compared with candidates with an ethnic name.

Table 4 about here

The level of employer reluctance in recruiting minority workers has been claimed to be higher in jobs where visual contact with customers is required. In this regard, references are often made to Becker's (1957) theory of taste discrimination, which claims that some employers, co-workers and customers have unfavourable attitudes towards workers of certain ethnic and minority backgrounds. For example, in the case of customer discrimination, it is suggested that some employers are circumspect in employing immigrant workers in jobs requiring dealing with customers such as sales occupations, as they perceive that customers do not want to engage in transactions with them. In this study, this hypothesis was tested by including the variable visual contact required/ not required in a logit-model where the other variables were job skill level, job sector and ethnicity (not shown in Table 4). The analyses show that whether a job involves customer contact or not is not significant (p=0.756), and the applicants with ethnic names are discriminated similarly across both types of jobs.

Conclusions

This study has empirically tested the chances of receiving a job interview offer for job seekers of various immigrant groups, who possessed identical human-capital credentials and who essentially differed only in their names. The findings clearly indicate that discrimination against immigrant job applicants is widespread in Finland, and the name has a strong statistical relationship with the chances of being invited for a job interview (p=0.000). The applicants with a Finnish name are 1.45 to 3.94 times more likely to be invited for an interview than the immigrant groups included in this study. This means that, in the absence of discrimination in the labour market, the chances of this outcome occurring in the real world would be less than one in a thousand. However, although all the ethnic applicants received considerably less callbacks than the Finnish ones, the ethnic candidates with a non-European name faced far greater difficulties than those with a European name in obtaining a job interview offer. The findings also show that there are considerable differences in callback rates across the five occupational sectors studied. The relative callback rates between the Finnish and the ethnic applicants are statistically quite significant especially in the retail trade and restaurant and catering sectors (p=0.000). However, again, the relative callback rates are much higher for the applicants with a non-European name, which means greater employer discrimination against these candidates. Especially, the male Iraqi and Somali applicants are rebuffed by the employers to a much higher degree. The study found no significant relationship between the job skill level and the chances of getting invited to a job interview. The analyses further show that whether a job involves customer contact or not is not significant (p=0.756) either, and discrimination against applicants with an immigrant name is equally spread across both types of jobs.

On the theoretical level, to what extent can labour-market discrimination detected in this study be explained in terms of statistical or taste-based discrimination? It may be difficult to precisely identify the extent of taste or statistical discrimination through the correspondence testing method (see, e.g., Heckman 1998). Nevertheless, it can be argued that statistical discrimination, according to which employers discriminate minority workers because of imperfect information about their true productivity and human-capital endowments, may not adequately explain the significant disparity observed in callback rates for a number of reasons. First, the CVs of all the applicants of immigrant origin exactly matched that of the majority candidate. It should have been easy for employers to obtain a comprehensive picture of their personal qualifications including education, prior job history, computer and software skills as well as names of the institutions at which they had received their education and professional diplomas. In addition, as was explicitly mentioned in the CVs, it was clear to employers that all the immigrant applicants had acquired their entire schooling, professional diplomas and work experience in Finland. Second, immigrant applicants also possessed excellent skills in Finnish language and

were familiar with the sociocultural realms of the Finnish society, as they were either born or raised in Finland. In short, given all the information at their disposal, employers did not have to resort to some stereotypes or applicants' group membership to infer their true productivity and to make an informed decision. Thus, the question that employers often did not invite the immigrant applicants due to their lack of sufficient information about their personal qualifications in principle should not arise.

On the other hand, in this study the evidence for a taste-based discrimination is not sufficiently supported either: we would expect such discrimination to be greater in jobs that necessitate face-to-face contact with customers, as employers are said to deem it bad for business to employ immigrants in these jobs due to customer prejudices. However, no statistically significant relationship was found in jobs requiring customer and no customer contact. Instead, discrimination seems to be present in all kinds of jobs, irrespective of skill level. The findings of this study, however, appear to corroborate earlier surveys conducted in Finland from the early 1990s. These surveys have consistently found English immigrants to be amongst the most favourably perceived groups, whereas immigrants of Somali and Arab origin are located at the bottom of the ethnic hierarchy. Therefore, it can be suggested that employers' differential responses towards the various immigrant groups could in part be reflective of larger attitudes towards these groups in Finnish society. In this respect, the findings may lend more support to the segmented labour market approaches that assume that employers' preferences are not merely indicative of their subjective motives, but may also involve the enactment of larger social expectations. In any case, regardless of whatever factors are underpinning employers' discriminatory practices, the findings of this study propose that the neoclassical idea of the labour market as a neutral, unitary and undifferentiated space in which labour-market actors, namely job seekers and employers, sell and hire labour according to the rational rules of supply and demand is rather open to doubt. Instead, a more fruitful conceptualisation would be to perceive the market as a socially and culturally constructed space in which the rules of supply and demand are shaped by a particular sociocultural reality. This is the very sociocultural embeddedness of the labour market that education, work experience and other relevant qualifications become insignificant when the job applicant belongs to a group for whom the 'objective' rules of the market do not more or less apply.

A number of implications follow from these findings. First, immigrants' weak labour-market performance and occupational mismatch in Finland have often been claimed to arise from deficiency in their human-capital attributes. Therefore, the remedies have predominantly focused on improving the supply-side dimension of the labour market. The findings of this study however suggest that discrimination still remains one of the significant factors in depressing immigrants' employment prospects. Second, based on the findings, it also seems reasonable to suggest that the policies and measures introduced by the labour authorities to enhance immigrants' labour-market integration, though very important, would not produce their desired results in the absence of a change in employers' attitudes towards immigrants' recruitment. Similarly, the findings highlight that the relevant anti-discrimination laws do not necessarily prohibit employers from excluding certain applicants from consideration for employment, even if they are strong candidates for the job. Fourth, as has been often argued, the success and failure of the children of immigrants who are raised and educated in the new country is the ultimate benchmark of their integration. In this context, the findings are not encouraging, since all the fictitious applicants were raised and had attained their entire education and work experience in Finland, and were proficient in the local language and culture. The second-generation in Finland is still mostly young, but would soon be entering the world of work. The findings of this study thus offer the policymakers an opportunity to evaluate

the efficacy of existing integration plans, and to devise more efficient strategies for achieving the goal of creating equal opportunities for all sections of society.

ENDNOTES

1. Because of their strong methodological advantage, correspondence and auditing techniques have been used in a variety of contexts including house rental (Carlsson and Eriksson 2014), mortgage lending (Hanson et al. 2016), business loans from financial institutions (Palia 2016) and home insurance (Galster et al. 2001).
2. The author is aware of the fact that scholars of migration, or other areas, may not always characterise Russia as a European or Western country. However, the term 'European' used here to describe immigrants of Russian origin is appropriate in the context of this article, since – in terms of colour, cultural and geographical proximity – they can be considered as much closer to the Europeans. In addition, it also makes sense to consider them as Europeans, as they are perceived as Europeans in Finland.
3. The exceptions include Oreopoulos (2011) who sent four applications to each vacancy.
4. https://suomenkuvalehti.fi/jutut/kotimaa/joka-seitsemas-suomalainen-on-rasisti-tassa-tuntomerkit/?shared=290251-b425ad99-500.

REFERENCES

Ahmad, A. 2005. *Getting a Job in Finland: The Social Networks of Immigrants from the Indian Subcontinent in the Helsinki Metropoplitan Labour Market*. Helsinki: University of Helsinki, Department of Sociolgy (Research Reports No. 247).

Andriessen, I., E. Nievers, J. Dagevos, and L. Faulk. 2012. "Ethnic Discrimination in the Dutch Labor Market: Its Relationship With Job Characteristics and Multiple Group Membership." *Work and Occupations* 39 (3): 237-269.

Becker, G. 1957. *The Economics of Discrimination.* Chicago, IL: University of Chicago Press.

Berdahl, J., and C. Moore. 2006. "Workplace Harassment: Double Jeopardy for Minority Women." *Journal of Applied Psychology* 91: 426-436.

Bursell, M. 2007. "What's in a Name? A Field Experiment Test for the Existence of Ethnic Discrimination in the Hiring Process." Stockholm: The Stockholm University Linnaeus Center for Integration Studies (Working Paper 2007:7).

Carlsson, M. 2010. "Experimental Evidence of Discrimination in Hiring in the First and Second Generation Immigrants. *Labour: Review of Labour Economics and Industrial Relations* 24: 221-357.

Carlsson, M., and S. Eriksson. 2014. "Discrimination in the Rental Market for Apartments." Journal of Housing Economics 23:41-54.

Darity, W. A., and P. L. Mason. 1998. "Evidence on Discrimination in Employment: Codes of Color, Codes of Gender." *The Journal of Economic Perspectives* 12 (2): 63-90.

Drydakis, N., and M. Vlassis. 2010. "Ethnic Discrimination in the Greek Labour Market: Occupational Access, Insurance Coverage and Wage Offers." *The Manchester School* 78 (3): 201-218.

Eronen, A., V. Härmälä, S. Jauhiainen, H. Karikallio, R. Karinen, A. Kosunen, J.-P. Laamanen, ja Lahtinen, M. 2014. *Maahanmuuttajien työllistyminen: taustatekijät, työnhaku ja työvoimapalvelut. Työ- ja elinkeinoministeriön julkaisuja, työ ja yrittäjyys 6/2014.* Helsinki: Työ- ja elinkeinoministeriö.

Fibbi, R., M. Lerch, and P. Wanner. 2006. "Unemployment and Discrimination Against Youth of Immigrant Origin in Switzerland: When The Name Makes the Difference." *Journal of International Migration and Integration* 7 (3): 351-366.

Forsander, A. 2002. *Luottamuksen ehdot: Maahanmuuttajat 1990-luvun suomalaisilla työmarkkinoilla. Väestöntutkimuslaitoksen julkaisusarja D 39/2002*. Helsinki: Väestöliitto.

Gaddis, S. M. (2015). Discrimination in the Credential Society: An Audit Study of Race and College Selectivity in the Labor Market. *Social Forces* 93 (4): 1451-1479.

Galster, G., D. Wissoker and W. Zimmermann. 2001. "Testing for Discrimination in Home Insurance: Results from New York City and Phoenix." *Urban Studies* 38 (1): 141-156.

Gordon, D. M. 1972. Theories of Poverty and Underemployment. Lexington Mass: D.C. Heath.

Hanson, A., Z. Hawley, B. Liu, and H. Martin. 2016. "Discrimination in Mortgage Lending: Evidence from a Correspondence Experiment." *Journal of Urban Economics* 92 (2):48-65.

Heath, A., and S. Y. Cheung. 2007. "The Comparative Study of Ethnic Minority Disadvantage." *Proceedings of the British Academy* 137: 1-44.

Heckman, J. J. 1998. "Detecting Discrimination." *Journal of Economic Perspectives* 12: 101-116.

Huttunen, H-P., and T. Kupari. 2007. *Specimasta opittua: korkeasti koulutetut maahanmuuttajat työelämään.* Turku: Turun työvoimatoimiston kansainväliset palvelut.

Jaakkola, M. 1999. *Maahanmuutto ja etniset asenteet: Suomalaisten suhtautuminen maahanmuuttajiin 1987-1999. Työpoliittinen tutkimus 213.* Helsinki: Edita.

Jaakkola, M. 2005. *Suomalaisten suhtautuminen maahanmuuttajiin vuosina 1987-2003. Työpoliittinen tutkimus 286.* Helsinki: Työministeriö.

Kirschenman, J., and K. Neckerman. 1991. "We'd Love to Hire Them, But…: The Meaning of Race for Employers." in *The Urban Underclass,* edited by C. Jencks, and P. Peterson. Washington, DC: The Brookings Institution.

Koivunen, T., H. Ylöstalo, and K. Otonkorpi-Lehtoranta. 2015. "Informal Practices of Inequality in Recruitment in Finland." *Nordic Journal of Working Life Studies* 5 (3): 3-21.

Lafer, G. 1992. "Minority Employment, Labor Market Segmentation, and the Failure of Job-Training Policy in New York City." *Urban Affairs Quarterly* 28 (2): 206-235.

Larja, L., J. Warius, L. Sundbäck, K. Liebkind, I. Kandolin, and I. Jasinskaja-Lahti. 2012. *Discrimination in the Finnish Labor Market: An overview and a field experiment on recruitment.* Helsinki: The Ministry of employment and the Economy.

Leontaridi, M. R. 1998. "Segmented Labour Markets: Theory and Evidence." *Journal of Economic Surveys* 12 (1): 63-101.

McGinnity, F., and P. D. Lunn. 2011. "Measuring Discrimination Facing Ethnic Minority Job Applicants: An Irish Experiment." *Work, employment and Society* 25 (4): 693 -708.

Myrskylä, P., and T. Pyykkönen. 2014. *Suomeen muuttaneiden naisten ja miesten työmarkkinatilanne, koulutus ja poliittinen osallistuminen.* Helsinki: Tilastokeskus (Working Papers 2/2014).

Nieminen, T. 2014. "Työttömyys ja työvoiman ulkopuolella olevat." In *Ulkomaista syntyperää olevien työ ja hyvinvointi suomessa 2014*, edited by T. Nieminen, H. Sutela, and U. Hannula. Helsinki: Työterveyslaitos, Terveyden ja hyvinvoinnin laitos and Tilastokeskus.

Oreopoulos, P. 2011. "Why Do Skilled Immigrants Struggle in the Labor Market? A Field Experiment with Six Thousand Resumes." *American Economic Journal: Economic Policy* 3(4): 148-171.

Palia, D. 2016. "Differential Access to Capital from Financial Institutions by Minority Entrepreneurs." Journal of Empirical Legal Studies 13 (4): 756-785.

Pehkonen, A. 2006. *Maahanmuuttajan kotikunta. Kunnallisalan kehittämissäätiön tutkimusjulkaisut, nro 52*. Helsinki.

Phelps, E. 1972. "The Statistical Theory of Racism and Sexism". *American Economic Review* 62: 659-661.

Portes, A., and M. Zhou. 1992. "Gaining the Upper Hand: Economic Mobility among Immigrant and Domestic Minorities." *Ethnic and Racial Studies* 15 (4): 491-522.

Riach, P., and J. Rich. 2002: "Field Experiments of Discrimination in the Market Place". *The Economic Journal* 112: F480-F518.

Rich, J. 2000. *What Do Field Experiments of Discrimination in Markets Tell Us? A Meta Analysis of Studies Conducted since 2000. IZA DP No. 8584.*

Saukkonen, P. 2017. "Immigrants and Employment in Helsinki." *Kvartti* 1: 44-59.

Sidanius, J., and R. C. Veniegas. 2000. "Gender and Race Discrimination: The Interactive Nature of Disadvantage." In *Reducing Prejudice and Discrimination*, edited by S. Oskamp, 47-69. Mahwah, NJ: Lawrence Erlbaum.

Sole´, C., and S. Parella. 2003: "The Labour Market and Racial Discrimination in Spain." *Journal of Ethnic and Migration Studies* 29 (1): 121-140.

Sutela, H. 2014. "Ulkomaalaistaustaiset työelämässä". In *Ulkomaista syntyperää olevien työ ja hyvinvointi suomessa 2014*.

TEM 2012. *Valtion kotouttamisohjelma. Hallituksen painopisteet vuosille 2012-2015*. Helsinki.

TEM (2016). *Valtion kotouttamisohjelma vuosille 2016-2019*. Työ- ja elinkeinoministeriö. *http://tem.fi/documents/1410877/3506436/Valtion%20kotouttamisohjelma%20vuosille%202016-2019.pdf/f6d25e21-a2ce-4fea-9838-e9807dd752e9*.

Uhlendorff, A., and K. F Zimmermann. 2014. "Unemployment Dynamics among Migrants and Natives". *Economica* 81 (322): 348-367.

VATT-työryhmä. 2014. *Maahanmuuttajien integroituminen Suomeen. VATT Analyysi 1-2014.* Helsinki: Valtion taloudellinen tutkimuskeskus VATT.

Weichselbaumer, D. (2015). *Discrimination against Migrants in Austria: An Experimental Study.* IZA Discussion Papers, No. 9354.

Table 1. Descriptive Statistics: Callback Rates by Job Applicant Name and Gender (logit model)

	Callbacks (n_i)	N	Callback rate, % (n_i/N)	Estimate	Std. error	*z* statistic	Sig.
Panel A: Aggregated sample							
Finnish name	390	1000	39.0				
English name	269	1000	26.9	0.552	0.096	5.728	0.000
Russian name	228	1000	22.8	0.771	0.099	7.763	0.000
Iraqi name	134	1000	13.4	1.416	0.113	12.522	0.000
Somali name	99	1000	9.9	1.757	0.124	14.178	0.000
Total	1120	5000					
Panel B: Male applicants							
Finnish name	169	500	33.8				
English name	123	500	24.6	0.447	0.140	3.185	0.000
Russian name	96	500	19.2	0.762	0.147	5.169	0.000
Iraqi name	46	500	9.2	1.609	0.181	8.908	0.000
Somali name	34	500	6.8	1.934	0.200	9.663	0.000
Total	468	2500					
Panel C: Female applicants							
Finnish name	221	500	44.2				
English name	146	500	29.2	0.651	0.133	4.889	0.000
Russian name	132	500	26.4	0.790	0.135	5.833	0.000
Iraqi name	88	500	17.6	1.307	0.148	8.847	0.000
Somali name	65	500	13.0	1.662	0.160	10.378	0.000
Total	652	2500					
Parameter estimate for gender							
Male applicant invited				*0.455*	*0.071*	*6.417*	*0.000*

Notes: At 95% confidence level; LR goodness-of-fit test of the model: 6.175, df=4, p=0.186. The model: callback ethnicity gender callback*ethnicity callback*gender. As this test indicates, the differences by gender are not different by ethnicity and the model fits without the interaction term. However, for descriptive purposes the table is given in the current form. The parameter estimate with test is given at the bottom of the table.

Table 2. The Net Discrimination and Relative Callback Rates, with Significance Tests

Panel A: Aggregated sample	F/E	F/R	F/I	F/S	E/R	E/I	E/S	R/I	R/S	I/S
1. No response/both rejected	561	572	587	598	666	703	717	739	753	846
2. Both invited	220	190	111	87	163	106	85	101	80	79
3. Applicant1 invited, Applicant2 not	170	200	279	303	106	163	184	127	148	55
4. Applicant2 invited, Applicant1 not	49	38	23	12	65	28	14	33	19	20
5. Net discrimination rate	28%	38%	62%	72%	12%	45%	60%	36%	52%	23%
6. Relative callback rate	1.45	1.71	2.91	3.94	1.18	2.01	2.72	1.70	2.30	1.35
p-value	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000
Panel B: Male applicants	**F/E**	**F/R**	**F/I**	**F/S**	**E/R**	**E/I**	**E/S**	**R/I**	**R/S**	**I/S**
1. No response/both rejected	306	315	326	327	346	368	371	393	398	449
2. Both invited	98	80	41	30	65	37	28	35	28	29
3. Applicant1 invited, Applicant2 not	71	89	128	139	58	86	95	61	68	17
4. Applicant2 invited, Applicant1 not	25	16	5	4	31	9	6	11	6	5
5. Net discrimination rate	24%	39%	71%	78%	18%	58%	69%	47%	61%	24%
6. Relative callback rate	1.37	1.76	3.67	4.97	1.28	2.67	3.62	2.09	2.82	1.35
p-value	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.009
Panel C: Female applicants	**F/E**	**F/R**	**F/I**	**F/S**	**E/R**	**E/I**	**E/S**	**R/I**	**R/S**	**I/S**
1. No response/both rejected	255	257	261	271	320	335	346	346	355	397
2. Both invited	122	110	70	57	98	69	57	66	52	50
3. Applicant1 invited, Applicant2 not	99	111	151	164	48	77	89	66	80	38
4. Applicant2 invited, Applicant1 not	24	22	18	8	34	19	8	22	13	15
5. Net discrimination rate	31%	37%	56%	68%	8.0%	35%	53%	29%	46%	22%
6. Relative callback rate	1.51	1.67	2.51	3.40	1.11	1.66	2.25	1.50	2.03	1.35
p-value	0.000	0.000	0.000	0.000	0.075	0.000	0.000	0.000	0.000	0.001

Notes. The 0.05 significance test level becomes 0.005 if we use the Bonferroni correction with ten tests in the same family; F=Finnish, E = English, R = Russian, I = Iraqi, S = Somali; For example, F/E means Applicant1 is Finnish, Applicant2 is English. Net discrimination rate = (Row 3 - Row 4)/(Row 2 + Row 3 + Row 4); Relative callback rate = (Row 2 + Row 3)/(Row 2 + Row 4).

Table 3. Relative callback rates by economic sector, with significance tests for discrimination against immigrant applicants and within immigrant applicants

Panel A: Aggregated sample	F/E	F/R	F/I	F/S	E/R	E/I	E/S	R/I	R/S	I/S
Restaurant & catering (N=591)	1.46*	1.72*	2.82*	3.99*	1.18	1.94*	2.74*	1.65*	2.32*	1.41*
Retail trade (N=215)	1.40	2.19*	4.21*	4.92*	1.56*	3.00*	3.50*	1.93*	2.25*	1.17
Cleaning (N=127)	1.44*	1.36	2.88*	3.50*	0.94	2.00*	2.43*	2.12*	2.57*	1.21
Clerical (N=55)	1.60	2.00	2.67	2.67	1.25	1.67	1.67	1.33	1.33	1.00
Customer service (N=12)	1.50	1.00	0.75	1.50	0.67	0.50	1.00	0.75	1.50	2.00
Panel B: Male applicants	**F/E**	**F/R**	**F/I**	**F/S**	**E/R**	**E/I**	**E/S**	**R/I**	**R/S**	**I/S**
Restaurant & catering (N=301)	1.34*	1.65*	3.21*	4.52*	1.23	2.39*	3.37*	1.95*	2.74*	1.41
Retail trade (N=117)	1.53	2.88*	11.50*	7.67*	1.88	7.50*	5.00*	4.00	2.67	0.67
Cleaning (N=82)	1.41	1.71	4.00*	6.00*	1.21	2.83*	4.25*	2.33	3.50*	1.50
Clerical (N=55)										
Customer service (N=12)										
Panel C: Female applicants	**F/E**	**F/R**	**F/I**	**F/S**	**E/R**	**E/I**	**E/S**	**R/I**	**R/S**	**I/S**
Restaurant & catering (N=290)	1.57*	1.77*	2.57*	3.63*	1.13	1.64*	2.32*	1.45*	2.05*	1.41*
Retail trade (N=98)	1.33	1.89*	3.00*	4.00*	1.42	2.25*	3.00*	1.58	2.11*	1.33
Cleaning (N=45)	1.47	1.14	2.27*	2.50*	0.77	1.55	1.70	2.00	2.20*	1.10
Clerical (N=55)	1.60	2.00	2.67	2.67	1.25	1.67	1.67	1.33	1.33	1.00
Customer service (N=12)	1.50	1.00	0.75	1.50	0.67	0.50	1.00	0.75	1.50	2.00

Note: The Bonferroni corrected level of significance used in this table is 0.005. Therefore, an asterisk is used differently from the common practice to indicate a p-value that is less than 0.005; since only females applied for jobs in the clerical and customer service sectors as mentioned earlier in section on data collection, there are no values in the corresponding cells in Panel B regarding males.

Table 4. Callback Rates with Respect to Job Skill Level (%), with Significance Tests

Panel A

Job skill level		Applicant name: Finnish	English	Russian	Iraqi	Somali	Total
Low	No callback	65.3	76.4	75.6	87.5	90.0	79.0
	Callback received	34.7	23.6	24.4	12.5	10.0	21.0
	Total	100	100	100	100	100	100
	N	271	271	271	271	271	1355
							Chi-Square test=65.051, df=4, p=0.00
Medium	No callback	58.9	70.5	79.1	85.6	91.0	77.0
	Callback received	41.1	29.5	20.9	14.4	9.0	23.0
	Total	100	100	100	100	100	100
	N	431	431	431	431	431	2155
							Chi-Square=156.281, df=4, p=0.00
High	No callback	60.1	73.8	75.8	87.2	88.9	77.2
	Callback received	39.9	26.2	24.2	12.8	11.1	22.8
	Total	100	100	100	100	100	100
	N	298	298	298	298	298	1490
							Chi-Square=92.258, df=4, p=0.00
Total	No callback	61.0	73.1	77.2	86.6	90.1	77.6
	Callback received	39.0	26.9	22.8	13.4	9.9	22.4
	Total	100	100	100	100	100	100
	N	1000	1000	1000	1000	1000	5000
							Chi-Square=306.759, df=4, p=0.00

Panel B

Applicant ethnicity	Estimate	Std. error	Z-statistic	Sign.	95% confidence interval: Lower bound	Upper bound
Finnish						
English	0.553	0.096	5.733	0.00	0.364	0.742
Russian	0.773	0.099	7.770	0.00	0.578	0.968
Iraqi	1.419	0.113	12.533	0.00	1.197	1.641
Somali	1.762	0.124	14.188	0.00	1.518	2.005
[Skill level = High]						
[Skill level = Medium]	-0.009	0.083	-0.110	0.912	-0.171	0.153
[Skill level = Low]	0.111	0.094	1.185	0.236	-0.073	0.295