The GEMM study: A cross-national harmonized field experiment on labour market discrimination: Technical report

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1 Research design

The Growth, Equal Opportunities, Migration & Markets (GEMM) project is a large-scale project investigating causes and consequences of inequality on the labor market. To do so, a large-scale comparative field experiment on discrimination in hiring behaviour was conducted in five countries: The United Kingdom (UK), Spain (ES), Germany (DE), Norway (NO), and the Netherlands (NL).

In each of these countries, cover letters and CVs were sent out in response to vacancies in ten occupations advertised on online platforms. Per vacancy, a maximum of one application was sent out (unpaired design). All feedback from the employer in response to the application was collected. All in all, the data set contains more than 19,000 applications. The data collection (i.e., sending out applications) took place over the span of nearly two years from the 30th of July 2016 until the 1st of June 2018.

The cover letters and CVs used in this field experiment differ from each other on several characteristics. Most importantly, the fictitious applicants vary in terms of their country of origin. A total of 53 different ethnic profiles – with a maximum of 36 per country of study – is used. Apart from country of origin, religion and phenotype treatment conditions, applicants also have varying, randomly assigned levels of qualification for their jobs.

The following paragraphs provide more detailed information on the selected occupations and experimental treatments. Appendix A.1. includes examples of our experimental material – i.e., a cover letter and CV for one of the occupations (cook) in each country of study.

1.1 Occupations

This project tests for discrimination in hiring behaviour in ten different occupations (Table 1). Several criteria were used to select these occupations. First, the field of duty of the chosen occupations is similar across the five countries. Second, the occupations have different levels of customer contact and different educational requirements. Initially, six occupations were selected: cook, store assistant, payroll clerk, receptionist, sales representative, and software developer. The original aim was an equal distribution between these six occupations. Unfortunately, this was not feasible as there were too few vacancies in some countries for particular occupations. Therefore, four additional occupations – hairdresser, plumber, electrician and carpenter – were added to the study in 2017 to increase the

number of vacancies to apply for. These occupations were only used in selected countries (see Table 2).[1]

Table 1. Occupational characteristics: educational level and level of customer contact.

		Educational level		
		Low	*Medium*	*High*
Customer	*Low*	Cook, carpenter*, plumber*, electrician*	Payroll clerk	Software developer
contact	*High*	Store assistants, hairdresser*	Receptionist	Sales representative

Note: Educational level is categorized into three categories: low (ISCED 0-2), medium (ISCED 3-4), and high (ISCED 5 or above). Occupations marked with a * were added to the study in 2017, and only used in selected countries.

Table 2. Occupations, ISCO-08 codes, ISCO names and country-specific remarks.

Code	Occupation	ISCO-08 Code(s)	ISCO name	Country-specific remarks
1	**Cook**	512	Cooks	
2	**Electrician**	7412	Electrical Mechanics and Fitters	Not in DE and ES
3	**Payroll Clerk**	3341	Office Supervisor	
		3343	Administrative and Executive Secretaries	
		3344	Medical Secretaries[a]	
		411	General Office Clerks	
		412	Secretaries (General)	
		4311	Accounting and Bookkeeping Clerks	
		4313	Payroll Clerks	
4	**Plumber**	7126	Plumbers and Pipe Fitters	Not in DE and ES
5	**Receptionist**	4224	Hotel Receptionists	
		4226	Receptionists (General)	
6	**Sales Representative**	2431	Marketing professionals	
		2433	Technical and Medical Sales Professionals (excluding ICT)	
		2434	Information and Communications Technology Sales Professionals	
		3322	Commercial Sales Representatives	
7	**Software Developer**	2512	Software Developers	
		2513	Web Developers	
		2514	Applications Programmers	
8	**Store Assistant**	5223	Shop Sales Assistants	
		5221	Shopkeepers	
		5222	Shop Supervisors[b]	
		5230	Cashiers and Ticket Clerks	
9	**Hairdresser**	5141	Hairdressers	Not in the UK
10	**Carpenter**	7115	Carpenters and Joiners	Not in DE, ES and the UK

Note: a) only if no specific experience in a nursing/medical environment is required. b) only if no management experience is required.

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[1] Moreover, from July 2017 onwards, two new occupational categories ("Office clerk – administrative" & "office clerk – accountant") were added in Spain and the UK. These categories are combined in the data set under the label "Payroll Clerk" to match the other countries.

Table 2 gives an overview of all occupations, corresponding ISCO-08 codes, and country-specific remarks. For more specific information on the search terms that were used to search for vacancies in each country, see Appendix A.2.
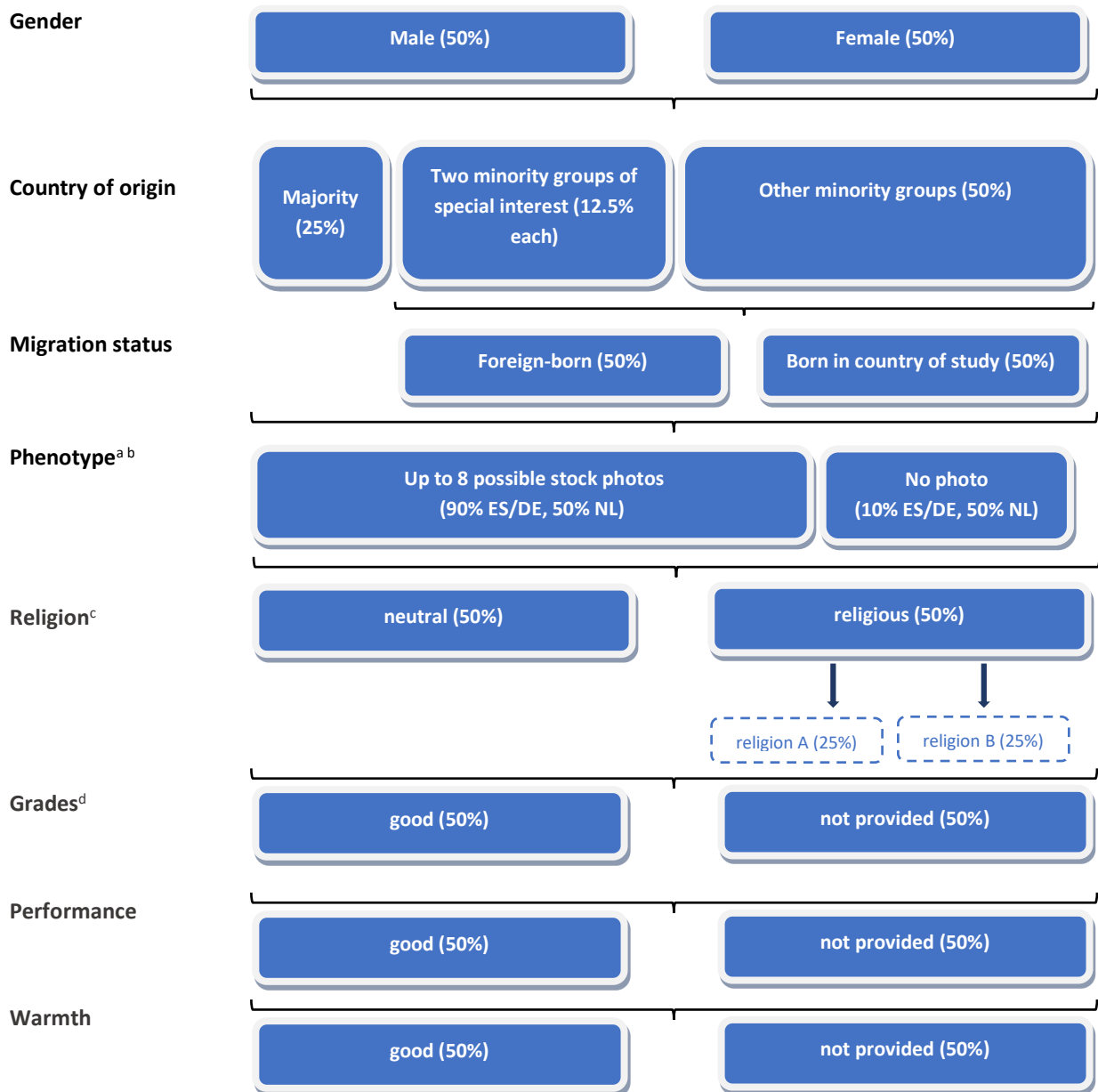
1.2 Treatments

The cover letters and CVs of our fictitious candidates differ from each other in several ways. Most treatments are orthogonal, indicating that their assignment to the applicant is random. To increase realism of the fictitious applicants, three treatments (religion, migration status, and phenotype) are non-orthogonal. This means that the possibility of assignment to a certain condition depends on another treatment, namely on country of origin. For instance, the range of phenotypes and religious affiliations that could be randomly assigned to an applicant is restricted depending on the candidate's country of origin. Furthermore, whereas most treatments were fully randomly assigned – meaning that all treatment conditions had an equal likelihood of being assigned – some treatments had particular assignment *quotas* to ensure sufficiently high case numbers for more detailed analyses. For example, minority groups of "special interest" are oversampled in each country of study. An overview of all experimental treatments including probabilities is shown in Figure 1.

The treatment wording slightly differs across the five countries. The guiding principle is the best match for the specific labor market, while keeping the skills constant. Keeping the phrasing as similar as possible across the countries would result in comparable wording, but not in comparable applications in terms of suitability. Thus, the comparability is not necessarily in the wording, but in its meaning, resulting in a job application that is equally suitable across countries, because it accommodates the particularities of the labor market.

1.1.1 Gender

Gender is signalled by the applicant's name, by using a gender-specific occupational name in the cover letter's subject line in countries where language allows it (e.g. *Koch/Köchin* in German), and – in part of the cases of Germany, Spain, and the Netherlands – by a profile picture on the CV. Half of the total sample consisted of female applications, and the other half of male applications. Applicants' gender is randomly varied in all occupations.

Figure 1. *Treatment overview with probabilities.*

Gender		
Male (50%)		**Female (50%)**

Country of origin			
Majority (25%)	**Two minority groups of special interest (12.5% each)**	**Other minority groups (50%)**	

Migration status		
Foreign-born (50%)	**Born in country of study (50%)**

Phenotype[a][b]	
Up to 8 possible stock photos (90% ES/DE, 50% NL)	**No photo (10% ES/DE, 50% NL)**

Religion[c]	
neutral (50%)	**religious (50%)**

religion A (25%)   religion B (25%)

Grades[d]	
good (50%)	**not provided (50%)**

Performance	
good (50%)	**not provided (50%)**

Warmth	
good (50%)	**not provided (50%)**

Note:

a) The phenotype treatment is only applied in countries where including a photo in the CV is acceptable or required (i.e., Germany, Spain and the Netherlands). In Norway and the United Kingdom, photos are not included precisely for this reason. Furthermore, the set of phenotypes that were used varied between countries of origin (Table 6).

b) In addition, female, Muslim applicants with a photo on their CV were assigned either to the headscarf (50%) or no headscarf (neutral) (50%) condition. As this treatment is dependent on gender and religion, and applied only to Muslim women, no exact probabilities can be given in this probability tree.

c) In mono-religious countries (i.e., second largest religious group is smaller than 5%), religion A and B are identical.

d) In Germany, school and job training certificates have to be added to the application documents. In the German experiment, therefore, grades were always provided, but in half of the cases not highlighted in the CV. This means that in the German case the quality of the grade is not, strictly speaking, a treatment because it is held constant. What is varying is the quality of the information about the grade in the job application.

1.1.2 Country of origin

To test for ethnic discrimination, the ethnic background of our fictitious job candidates was experimentally varied. Country of origin was made salient through the applicant's name, language skills, migration status (foreign-born or born in the country of study), and place of birth (for foreign-born minority groups only). In the skills section of the CV, the applicant's country of origin was explicitly signalled by indicating, in addition to the host country language, a second mother tongue, e.g. "Russian (mother tongue)" or "Luganda (mother tongue)". Additionally, migration status was randomly assigned to the application: all ethnic minority applicants mentioned in their cover letters that they were either foreign-born or born in the country of study. If the former, they had moved from the respective country of origin to the host country at the age of six.

In total, 53 different ethnic profiles are used for our applications. All five countries used the same 31 ethnic profiles. Additionally, each country used five ethnic profiles that were of particular interest in the respective national context. Most of these additional profiles were used in more than one country. Countries of origin were chosen based on several criteria. First, the most important minority groups in each country (based on the size of the respective group relative to the majority population) were identified. Second, the distribution of religious groups within the countries was considered; countries with two major religions were preferred over mono-religious countries. Third, countries with a large phenotypical heterogeneity were selected, as pictures were included in German, Spanish and Dutch applications. Fourth, the availability of register data, additional data sets and information on country characteristics (e.g., World Values Survey (WVS) and European Values Survey (EVS)) was checked, in order to carry out additional analyses. Finally, the aim was to represent as many regions of the world as possible.

Table 3 gives an overview of the names chosen for our fictitious applications for each ethnic profile. In order to find suitable names for each country of origin, an online name search on websites of national name registers was conducted. For each country of origin, the most frequent names in the applicants' birth year – between 1991 and 1996, depending on the occupation – were chosen. In countries where such data was not available, names that were frequently mentioned on internet websites listing popular names were selected. Moreover, names with religious connotations, names of popular figures, and gender-neutral names were avoided. Finally, names that were fairly easy to pronounce for employers were preferred, so that biases in call back rates – because employers might be hesitant to call an applicant whose name they wouldn't know how to pronounce – are avoided. Surnames were chosen based on the most common last names in each country. To assess whether the chosen names for majority applicants deviate from other common names in terms of name connotations, an online survey was conducted in each country (see Larsen, 2018 (forthcoming)).

Moreover, though it cannot be guaranteed that the chosen names are class-neutral, it is likely that employers in most cases would not be aware of the social selectivity of foreign names and that in fact, they would mainly rely on the country of origin mentioned in the cover letter to be able to identify ethnic origin at all.

For the names of the majority group in the United Kingdom, data from the Office for National Statistics on the most popular names by birth cohort and gender were used. The names Emily and James Robinson ranked in the top-five, and have the same number of letters. Furthermore, the surname Robinson was used in previous correspondence tests. A similar approach was applied in Germany, where data from the *Gesellschaft für deutsche Sprache e. V.* (GfdS) were used to pick Lisa and Paul Schneider, both ranking under the top-ten in this list. These names also have the same number of letters and are popular even outside the specific birth cohort. In the Netherlands, researchers of the Utrecht Institute of Linguistics were consulted. They verified that the first and last names for the candidates from the majority group (Jeroen and Maaike De Vries) are very common and class-neutral (see also Bloothooft & Onland, 2011).[2] In Norway, the majority names (Kristian and Silje Hansen) were chosen after popularity in the years our candidates are born, according to data from Statistics Norway.[3] For the Spanish names (Alba and Álvaro Martínez García), an online survey among Spanish respondents (*N* = 694) was conducted to test whether these names were really recognized as Spanish names, which could be confirmed.[4]

Applicants' ethnic profiles were generated by an automatic stratified random sampling process. Within each country of study, samples consist of 25% applicants from the majority population, and 25% applicants from the most sizeable or historically well-established minority groups – i.e., Turks and Lebanese in Germany; Moroccans and Ecuadorian in Spain, Moroccans and Turks in the Netherlands[5]; Pakistani and Somali in Norway; and Pakistani and Nigerians in the United Kingdom. These groups were oversampled to allow comparison of our with results with previous studies. The remaining ethnic profiles make up for the other 50% of the sample. Each country included the same 30 ethnicities and

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[2] Bloothooft and Onland also provided the research team with access to a data set with the most common first and last names among different ethnic groups in the Netherlands. Based on this data set and the GEMM-criteria, names for the Belgian, Surinamese, Dutch Antillean, and Malay job candidates are chosen.

[3] The same procedure was applied for Swedish and Danish names. Moreover, (last) names that are distinctly Swedish, while still being very common, were consciously picked (i.e., Andersson, which would be Andersen in Norway, and Linnéa - which is common in Sweden, but not so in Norway). The same is true for the Danish last name Nielsen, which would be Nilsen in Norway.

[4] The same procedure was conducted for the Ecuadorian names. The results verified that the names were correctly recognized as Spanish or Latino (Ecuadorian) names, and thus, ethnically distinguishable.

[5] From November 2017 onwards, candidates from Polish and Bulgarian origin were also oversampled in the Netherlands. Different treatment probabilities for country of origin are used. In specific, 25% of the candidates were Polish, 25% Bulgarian, 6.25% Turkish, 6.25% Moroccan, 12.5% was from the majority group, and the remaining 25% was from other minority groups.

the majority population. Additionally, each country added five additional origin groups to make sure that countries of origin of particular interest in the respective national context would be included, while avoiding the inclusion of groups that are very small in the destination country and hence unlikely to be heard of. The five countries of origin that were added match as much as possible across the countries of study.

Table 3. *Names of male and female applicants by ethnic profiles.*

A. Ethnic profiles used in all countries					
Code	**Country of origin**	**Male names**	**Female names**	**Surnames**	**Oversampled**
1	**Albania**	Arben	Valbona	Marku	
2	**Bulgaria**	Zlatan	Nevena	Dimitrov/a	NL
3	**China**	Ho-Yin	Xia	Chan	
4	**Egypt**	Karim	Dina	Saleh	
5	**Ethiopia**	Habtamu	Abeba	Yerga	
6	**France**	Guillaume	Claire	Durand	
7	**Germany**	Paul	Lisa	Schneider	
8	**Greece**	Giorgos	Konstantina	Papadopoulos/ou	
9	**India**	Sanjay	Divya	Kumar	
10	**Indonesia**	Dian	Putri	Bintang	
11	**Iran**	Farhad	Anisa	Ahmadi	
12	**Iraq**	Kathem	Rana	Ahmed	
13	**Italy**	Francesco	Valentina	Marino	
14	**Japan**	Hiroto	Asuka	Sato	
15	**Lebanon**[6]	Fares	Ghada	Khodr	DE
16	**Mexico**	Pedro	Guadalupe	Flores Martínez	
17	**Morocco**[7]	Mehdi/Said	Karima/Rachida	Idrissi/El Moussaoui	ES, NL
18	**Netherlands**	Jeroen	Maaike	De Vries	
19	**Nigeria**	Akintunde	Adeola	Oladejo	UK
20	**Norway**	Kristian	Silje	Hansen	
21	**Pakistan**	Tariq	Yasmeen	Anwar	NO, UK
22	**Poland**	Marek	Michalina	Kowalski	NL

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[6] In Spain, Bosnia and Herzegovina was used as a country of origin until May 2017 and replaced by Lebanon from June 2017 onwards. In Norway, Lebanon and Morocco were used as countries of origin only from June 2017 onwards.

[7] The aforementioned online survey conducted in Spain (*N* = 694) is also used to assess whether the original Moroccans names (Mehdi and Karima Idrissi) were really recognized as such. In the Spanish context this could not be confirmed. Hence, the Moroccan names have been changed to Said and Rachida El Moussaoui, which were also tested and correctly identified as Moroccan names. In the UK and Germany, only the names Mehdi and Karima Idrissi were used for Moroccan applicants. In Norway, only the names Said and Rachida El Moussaoui were used for Moroccan applicants. In Spain and the Netherlands, the names Mehdi and Karima Idrissi were used before the 22nd of May 2017, and the names Said and Rachida El Moussaoui were used from that date onwards (in the Netherlands next to the initial Moroccan names, with a 50/50 probability).

Table 3. *Continued.*

23	**Rumania**	Andrei	Dana	Popescu	
24	**Russia**	Sergej	Olga	Ivanov/a	
25	**South Korea**	Ji-Hun	Su-Min	Lee	
26	**Spain**	Alvaro	Alba	Martínez García	
27	**Turkey**	Enes	Elif	Aydin	DE, NL
28	**Uganda**	Wemusa	Kisakye	Ndikumana	
29	**United Kingdom**	James	Emily	Robinson	
30	**USA**	Matthew	Ashley	Smith	
31	**Vietnam**	Danh	Linh	Nguyen	

B. Ethnic profiles used in selected countries

Code	Country of origin	Male names	Female names	Surnames	Countries
32	**Bosnia and Herzegovina**[5]	Ajdin	Belma	Kovačević	ES, NO
33	**Dominican Republic**	Carlos Manuel	Elizabeth	Vasquez Pérez	DE, ES
34	**Macedonia**	Dragomir	Vesna	Angelov/a	DE, NL
35	**Malaysia**	Chee	Siew	Leong	DE, NL
36	**Trinidad and Tobago**	Toriano	Onika	Wilson	UK, DE
37	**Surinam**	Ricardo	Sharmila	Pinas	NL
38	**Belgium**	Glenn	Lore	De Smet	NL
39	**Antilles**	Gregory	Sharine	Martis	NL
40	**Sweden**	Erik	Linnéa	Andersson	NO
41	**Denmark**	Henrik	Hanne	Nielsen	NO
42	**Lithuania**	Ivan	Elena	Mantas	NO
43	**Eritrea**	Aman	Segen	Tesfay	NO
44	**Philippines**	Reynaldo	Rowena	Reyes-Ilagan	NO, ES
45	**Ukraine**	Dmytro	Oksana	Melnyk	ES
46	**Ecuador**	Luis Alberto	María Fernanda	Guamán Espinoza	ES
47	**Portugal**	Nuno	Catarina	Rodrigues	ES
48	**Jamaica**	Lavonne	Delroy	Worrell	UK
49	**Bangladesh**	Farzana	Abdul	Uddin	UK
50	**Somalia**	Idres	Yassin	Dahir	UK, NO
51	**Ireland**	Erin	Brendan	O'Brien	UK
52	**South Africa**[8]	Piet Bongani	Hilda Ayanda	Van Reeden Nkosi	DE
53	**Catalonia**[9]	Jordi	Laia	Puig Solé	ES

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[8] 50% white Afrikaans and 50% black Zulu names.

[9] The Catalan ethnic profile was only used in Catalonia, in the period between March 2018 and June 2018.

1.1.3 Migration status

Next to country of origin, migration status is varied, distinguishing between foreign-born ethnic minorities (migrated at the age of six), and minorities born in the country of study. Hence, all applicants have obtained their secondary education in the country of study. Migration status treatment was dependent on country of origin. Applicants with an country of origin other than that of the majority group, are randomly assigned to be either foreign-born or born in the country of study. A sentence to indicate their migrant status was included in the cover letter:

- Foreign-born minorities: *"I was born in [home country], but moved to [region of company] at the age of 6 and all my relevant education and training has been in [host country]."*
- Minorities born in the country of study: *"My family is originally from [home country], but I was born in [region of company] and all my education and training has been in [host country]."*

These sentences are translated, and slightly adapted for each of the five countries.[10] Furthermore, migration status was signaled in the CV (place of birth) for foreign-born minority groups.

1.1.4 Religion

Applicants either indicated no religious affiliation (50%), or were affiliated with a Christian, Muslim, Buddhist or Hindu organization. Religious affiliation was made salient by mentioning the applicant's engagement in a voluntary association in both the cover letter and the CV. All applicants volunteered, but some did so in a religious organization (religion treatment), while others volunteered in a secular organization (neutral treatment). The addition of voluntary work to application materials to signal religious affiliation was justified as this work also signals human capital; otherwise employers might find it irrelevant information. Table 4 summarizes the phrasing of the religious and neutral treatment in the applicants' cover letter for the different occupations. Moreover, the applicants' CVs include the line: *"Volunteer at [religion treatment: Christian/Muslim/Hindu/Buddhis] Youth Project"*.

The religion treatment is non-orthogonal and depends on country of origin. The one or two dominant religion(s) were identified for each country of origin. A country is listed with two dominant religions if more than five percent of the population belongs to the second religious group (Pew Research Center, 2017). Applicants can only be assigned to (one of) the dominant religion(s) of their country of origin

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[10] In the UK, the wording was slightly different:

- For domestic-born minority groups: *"Note that although I have a [origin] background all my education and training has been in Britain since the age of six and I have the right to work in the UK."*.
- For foreign-born minority groups: *"Note that although I have a [origin] background all my education and training has been in Britain and I have the right to work in the UK."*

(with equal probabilities). Table 5 provides an overview of which religion affiliations were used for which ethnic profile.

Table 4. Wording religious treatment in cover letter by occupation.

A.	Neutral treatment	Religion treatment
	… of the Youth Project, a local community centre ….	… the [Christian/Muslim/Hindu/Buddhist] Youth Project, a local community centre….
B.	**Occupation**	**Wording cover letter**
1	**Cook**	I am a passionate cook, both in my professional life and in my spare time. I am an active member of [**treatment**] where I, among other things, help with the preparation of meals during various events like local fairs and open days.
2	**Electrician**	I am passionate about electronics, both in my professional life and in my spare time. I am an active member of [**treatment**] where I, among other things, work as a handyman.
3	**Payroll Clerk**	I am highly organized, both in my professional life and in my spare time. I am an active member of [**treatment**] where I, among other things, help with day to day administrative tasks.
4	**Plumber**	I am a passionate plumber, both in my professional life and in my spare time. I am an active member of [**treatment**] where I, among other things, help with all kinds of pipe fitting tasks.
5	**Receptionist**	I am highly organized, both in my professional life and in my spare time. I am an active member of [**treatment**] where I, among other things, help with the planning and organization of events like local fairs and open days.
6	**Sales Representative**	I have a flair for marketing, both in my professional life and in my spare time. I am an active member of [**treatment**] where I, among other things, help with the planning of sale events and fund-raising activities like local fairs and open days.
7	**Store Assistant**	I have a flair for sales, both in my professional life and in my spare time. I am an active member of [**treatment**] where I, among other things, help with the planning of sale events and fund-raising activities like local fairs and open days.
8	**Software developer**	I am passionate about computers and IT technologies, both in my professional life and in my spare time. I am an active member of [**treatment**] where I, among other things, help with the day to day maintenance of the membership database.
9	**Hairdresser**	I am passionate about hairdressing and stylism, both in my professional life and in my spare time. I am an active member of [**treatment**] where I, among other things, help with the planning and organization of events like local fairs and open days.
10	**Carpenter**	I am a passionate carpenter, both in my professional life and in my spare time. I am an active member of [**treatment**] where I, among other things, help with building up stands and marquees for events like local fairs and open days.

Table 5. *Distribution of religion treatment by country of origin.*

Code	Country of origin	Christian	Muslim	Buddhist	Hindu
1	Albania	X	X		
2	Bosnia and Herzegovina	X	X		
3	Bulgaria	X	X		
4	China	X		X	
5	Egypt	X	X		
6	Ethiopia	X	X		
7	France	X			
8	Germany	X			
9	Greece	X			
10	India		X		X
11	Indonesia	X	X		
12	Iran		X		
13	Iraq		X		
14	Italy	X			
15	Japan			X	
16	Lebanon	X	X		
17	Mexico	X			
18	Morocco		X		
19	Netherlands	X			
20	Nigeria	X	X		
21	Norway	X			
22	Pakistan		X		
23	Poland	X			
24	Rumania	X			
25	Russia	X	X		
26	South Korea	X		X	
27	Spain	X			
28	Turkey		X		
29	Uganda	X	X		
30	United Kingdom	X			
31	USA	X			
32	Vietnam	X		X	
33	Dominican Republic	X			
34	Macedonia	X	X		
35	Malaysia		X	X	
36	Trinidad and Tobago	X			X
37	Surinam	X			X
38	Belgium	X			
39	Antilles	X			
40	Sweden	X			
41	Denmark	X			
42	Lithuania	X			
43	Eritrea	X	X		
44	Philippines	X	X		
45	Ukraine	X			
46	Ecuador	X			
47	Portugal	X			
48	Jamaica	X			
49	Bangladesh		X		X
50	Somalia		X		
51	Ireland	X			
52	South Africa	X			
53	Catalonia	X			

1.1.5 Phenotype

The effect of applicants' phenotype on employers' call-back rates could only be assessed in those countries where including a picture in the CV is an acceptable or a required practice in job applications – i.e., Germany, Spain and the Netherlands. Since it is not customary to do so, pictures are not included in Norway and the UK.[11]

As with religion, the applicant's phenotype was dependent on country of origin. Our experimental design has maximized the within-ethnicity phenotypic variation, though assuming that the two treatments (ethnicity and phenotype) could not be completely orthogonal. Had they been totally independent, all the eight phenotypes would have had the same probability of being included in the CV regardless of applicants' country of origin. Unfortunately, this type of design would not have been realistic, as some country-phenotype combinations are extremely unlikely. Consequently, an online survey (active in April 2016) is used to determine which of the eight phenotypes could be plausible among the population from each country of origin. The results of this implausibility test are based on a convenience sample with the majority of respondents being students from the universities of the five countries participating in this study (N = 204). All respondents evaluated part of the 21 pictures, and were asked to select the countries from which the person in the picture is highly *unlikely* to be from. When the proportion of negative responses for a picture-country combination exceeded 55%, the phenotype of the picture was considered unrealistic for the population of that particular country, and subsequently, the picture was excluded for applicants with this ethnic background.

In the same survey, the respondents had to evaluate the individuals in the pictures on a 7-point scale with regard to five different traits: friendliness, trustworthiness, professionality, competence, beauty and age. The aim was to ensure that all pictures were equally assessed by respondents, ruling out the possibility that certain applications were more successful than others for reasons unrelated to employers' (conscious or unconscious) racial preferences. Respondents were also asked to estimate the age of the individuals in the pictures to make sure that their perceived age matched the applicants' age in the CV. The results show, for instance, that the initially chosen female picture with a North European phenotype was more negatively evaluated than the average evaluation of all pictures in each country, and that the initially chosen male picture of the Central European phenotype was perceived as older (age range 26-30) than the applicants (age range 21-25). In light of respondents' evaluations, some pictures used for the online survey were discarded, and replaced by new pictures.

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[11] In Norway, pictures were used in a pilot study. As it was difficult to determine how common this practice is in Norway (yet), decided was to discontinue this for the main study.

Table 6 shows the pictures that were used for the fictitious applications in the German, Spanish and Dutch field experiments. Both the male and female pictures were drawn from a stock photography website. Among the set of plausible phenotypes for the respective ethnic group, one photo was randomly chosen. 90% of the applications in Germany and Spain, and 50% of the applications in the Netherlands included a picture. 10% of applications were sent without a photograph to measure the effect of not including a CV picture on call-back rates.[12]

In addition, for each of the eight female phenotypes, a version with headscarf was created with Photoshop. The headscarf treatment is dependent on the religion (Muslim) treatment, as it is unrealistic that non-Muslim women wear a headscarf.[13] Muslim women with a photo on their CV were assigned either to the headscarf (50%) or neutral (50%) condition. Table 7 summarizes the distribution of the pictures across applicants' countries of origin.

1.1.6 Grade

To test whether grades differently affect hiring behaviour for majority and minority groups, information about the applicants' school grades was varied. Half of the applicants mentioned good final grades, while the other half did not mention any grades. The wording of the grade treatment on the applicant's CV slightly differed per country, and is summarized in Table 7. Moreover, since in Germany it is mandatory to add copies of school leaving and training certificates to application documents, the treatment slightly differs in this country in that these copies (and thus the respective grades) were always provided, but only in half of the cases the "good" final grades were in addition mentioned in the CV.

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[12] In the Netherlands, from March 2018 to the end of data collection, treatment probabilities were changed so that *all* applicants had a majority ethnic profile (i.e., Dutch) combined with a North African/Turkish phenotype.
[13] However, the headscarf and the religion (Muslim) treatments were considered completely orthogonal in Spain until November 2017. To make up the discrepancy, more observations that follow the GEMM design – i.e., Muslims that have headscarves and people without religious treatment that have no headscarf – were collected during November and December 2017. However, there are still cases in the Spanish data of women with no religion treatment that wear a headscarf. This treatment combination was not used in the other four countries. These cases are identified, and can be removed from the data set if required.

Table 6. *Photo series phenotypes.*

Code	Phenotype	Male	Female	Female with headscarf
1	**North European**			
2	**Central European**			
3	**South European**			
4	**North African/Turkish**			
5	**East African**			
6	**West African**			
7	**East Asian**			
8	**South Asian**			

Table 7. *Distribution of phenotypes by country of origin.*

		Phenotype							
Code	Country of origin	North European	Central European	South European	North African/Turkish	East African	West African	East Asian	South Asian
1	**Albania**	X	X	X	X				
2	**Bosnia and Herzegovina**	X	X	X	X				
3	**Bulgaria**	X	X	X	X				
4	**China**							X	X
5	**Egypt**			X	X	X	X		X
6	**Ethiopia**					X	X		
7	**France**	X	X	X	X	X	X		X
8	**Germany**	X	X	X	X				
9	**Greece**		X	X	X				
10	**India**			X	X				X
11	**Indonesia**			X	X			X	X
12	**Iran**			X	X				X
13	**Iraq**			X	X				X
14	**Italy**	X	X	X	X				
15	**Japan**							X	X
16	**Lebanon**		X	X	X				X
17	**Mexico**		X	X	X				X
18	**Morocco**			X	X	X			
19	**Netherlands**	X	X	X	X	X	X		
20	**Nigeria**					X	X		
21	**Norway**	X	X	X					
22	**Pakistan**			X	X	X			X
23	**Poland**	X	X	X					
24	**Rumania**	X	X	X	X				
25	**Russia**	X	X	X					
26	**South Korea**			X				X	X
27	**Spain**	X	X	X	X				
28	**Turkey**		X	X	X				X
29	**Uganda**					X	X		
30	**United Kingdom**	X	X	X	X	X	X	X	X
31	**USA**	X	X	X	X	X	X	X	X
32	**Vietnam**							X	X
33	**Dominican Republic**			X	X	X	X		X
34	**Macedonia**	X	X	X	X				
35	**Malaysia**			X	X			X	X
36	**Trinidad and Tobago**					X	X		
37	**Surinam**		X	X	X	X	X	X	X
38	**Belgium**	X	X	X	X	X	X	X	X
39	**Antilles**				X	X	X		
40	**Sweden**	X	X	X					
41	**Denmark**	X	X	X		X			
42	**Lithuania**	X	X	X					
43	**Eritrea**					X	X		
44	**Philippines**							X	X
45	**Ukraine**	X	X	X	X				
46	**Ecuador**			X	X	X			X
47	**Portugal**	X	X	X	X	X			
48	**Jamaica**								
49	**Bangladesh**	These countries of origin were only used in the UK and Norway, where no							
50	**Somalia**	photos are included in the applications.							
51	**Ireland**								
52	**South Africa**	X	X	X	X	X	X	X	
53	**Catalonia**		X	X					

1.1.7 Performance

For 50% of the applicants, a statement was included in their application indicating they had additional responsibilities in their prior job (treatment condition), while the other 50% did not receive this treatment (neutral condition). The treatment consisted of the following statement in the cover letter of the applicant:[14] [15]

"My job as [profession] prepared me well to work under pressure. Because of the great range of duties in my current job, I am used to master new challenges and I am always eager to expand my skills. As a result of my consistently high work performance, my employer passed more responsibilities on me. For example, since last years I am responsible for training…"

- Cook: *"…new members of the kitchen staff."*
- Electrician/Plumber/Carpenter: *"…new apprentices."*
- Payroll Clerk: "*…new members of the admin team*."
- Receptionist: "*…new members of the front of house staff*."
- Sales Representative/Store Assistant: "*…new members of the sales team*."
- Software Developer: "*…new members of the IT team*."
- Hairdresser: "*…new trainees*."

The applicant's CVs also include bullet points to signal the additional responsibilities in their prior job (see examples of experimental material in Appendix A.1.).

1.1.8 Warmth

For 50% of the applicants, a statement was included in their application indicating they are particularly social and work well in teams, while the other 50% did not receive this treatment (neutral condition). The treatment consisted of a statement in the cover letter of the applicant that was phrased as follows:[16]

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[14] In the UK and the Netherlands, there was an additional phase included on the applicant's CV that was worded as follows: "*A hard-working person, successful in meeting the targets of the company and responsible for training [see treatment wording in the above list]. Now looking for opportunities to further develop in the [job specific] sector.*"

[15] In contrast to the other four countries, the grade and productivity treatments were dependent on each other in Spain until the 20th of June 2017. That is, when the fictitious applicant had a grade considered good, he or she was also assigned to the performance treatment. Consequently, there is an uneven distribution of cases across the four possible combination of productivity and grade.

[16] In the UK, Spain and the Netherlands there was an additional statement included on the applicant's CV that was worded as follows: "*A friendly and trustworthy person who gets on well with a wide range of people. A team player who values a good work environment.*"

"My friends and colleagues [in the UK: colleagues and friends] think that I am a pleasant and social person, who gets along well with others, both at work and elsewhere. I am a team player who values a good work environment, and that is why I am always friendly and attentive to other people's needs."

Table 8. *Wording of grade treatment, by country.*

	Country	Occupation(s)	Qualification	Treatment	Control
1	**United Kingdom**	Cook, electrician, plumber	Number of General Certificate of Secondary Education (GCSEs)	5	4
		Payroll clerk, receptionist	Number of GCSEs and grades on A-level	8 GCSEs, A*/A/B	5 GCSEs, B/B/B
		Sales Representative, software developer	Number of GCSEs and grades on A-level	10 GCSEs, A*/A/B, modules in higher education mentioned on CV	7 GCSEs, B/B/B, modules in higher education not mentioned
2	**Spain**	Cook, payroll clerk, receptionist, shop assistant, hairdresser	*Nota media* (Average grade)	7.4 (out of 10)	Not provided
		Sales Representative, software developer	*Nota media* (Average grade)	7.2 (out of 10)	Not provided
3	**Germany**	Cook	HA /IHK	Gut /befriedigend	Not provided (but certificates)
		Shop assistant	HA /IHK	Gut/gut	
		Hairdresser	EHA /HWK	Gut/befriedigend	
		Payroll clerk	MSA/IHK	Gut/gut	
		Receptionist	MSA/IHK	+ certificates	
		Sales Representative, Software developer	Abitur/Bachelor (BWL) Abitur/Bachelor (Informatik)	Gut/gut + certificates	
4	**Norway**	All occupations	*Gjennomsnittskarakter* (Average grade)	5 (out of 6)	Not provided
5	**Netherlands**	All occupations	*Cijfergemiddelde* (Average grade)	7.5 (out of 10)	Not provided

Note: HA = Hauptschulabschluss, EHA = Erweiterter Hauptschulabschluss, MSA = Mittlerer Schulabschluss, IHK = Industrie- und Handelskammer, HWK = Handwerkskammer, BWL = Betriebswirtschaftslehre.

1.3 Cover story

To increase comparability, the fictitious applications had a similar cover story. All applicants lived in a capital or other big city. Majority applicants and minority applicants born in the country of study were born in the region where the job was advertised, and stated in their cover letter that they would like to work in the same occupation, but preferably closer to the region they grew up.[17] Foreign-born applicants were born in the capital of their country of origin. After completion of their education, all candidates gained four years of working experience at two different companies in the same sector of the job vacancy. All cover letters include a job task description of the second job. Although the content is similar, the length of the job task description slightly differs between the countries due to labor market particularities.

1.   Field experiment

2.1 Procedure

Before starting with our experiment, a set-up pilot in each country was ran. This pilot was used to assess the study materials, software application, equipment and procedures, and the fit of the applications with the conditions of the labour market.

A computer-assisted procedure was used to conduct the field experiment. The used software has been developed with the main goal of automatizing and simplifying the job application processes in field experiments concerning ethnic discrimination. The software allows for retrieving vacancies from multiple job search platforms (i.e., "crawls") at a specified time and date, assigning manipulated application materials to vacancies, and makes it possible to apply to a large amount of job vacancies in a short time span. A programmer, hired by the Berlin Social Science Center (WZB), originally wrote the software. The code was then translated into an English version by the Webteam of Utrecht University (UU), as well as rewritten and improved on several accounts. Further programming was required to adapt the software to the specificities of the online job-search platforms in each country.

After "crawling" the vacancies from the job search platforms[18], based on our predefined randomization code, the software automatically assigned treatment conditions to the applications, and created the emails, cover letters, and CVs for the fictitious applicants. Student-assistants manually checked whether all the relevant information is correct and filled out, and whether the application is

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[17] If the specific place the job was advertised was too small or remote – i.e., the employer would most likely expect to know the person or family – the nearest city or town with a larger population was chosen instead as the applicant's place of birth, so that the cover story still made sense.

[18] For more specific information on the search terms that were used to search for vacancies in each country, see Appendix A.2.

a good match for the vacancy. Applications with one or more imperfections were placed in the "misfit" category, and sorted out.[19] The other applications are identified as ready to send. After this check, e-mails are automatically sent out within the software.[20]

2.2 Employer responses

Contact information was provided on our applicants' CVs, including an e-email address, a mobile phone number, and a postal address. Every employer's response to the application is coded. All forms of possible employer responses (including non-responses) are categorized into nine categories. Table 8 gives an overview of these categories. There were up to eleven rounds of employer feedback per application, meaning the employer got back to the research team up to eleven times with some type of feedback. For every feedback round, the date, channel (e.g., email, telephone, postal letter) and response type are recorded.

The research team did not engage in further communication with the employer. In case of the response types (pre-)invitation, additional info wanted or incomplete application, the application was politely withdrawn stating that the candidate is no longer interested.

The main response variable refers to the final response of the employer on the application. Ambiguous responses (confirmation of receipt, missed call, or "other" responses) were overwritten by more clearly positive or negative responses; after the application was withdrawn, or the after a rejection, the response was not overwritten anymore. For example, a case where the feedback order was (1) confirmation of receipt – (2) missed call – (3) pre-invitation is coded as a pre-invitation. If the missed call or confirmation of receipt was not followed up by any other less ambiguous response type, it was coded as missed call or confirmation of receipt respectively (depending on which of these two was received first). For example, a case where the feedback order was (1) missed call – (2) confirmation of receipt is coded as a missed call. Table 10 shows a contingency table of the final response type by country of study.

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[19] The vacancies in the "misfit" category could in principle not be applied for. Exceptions are vacancies for which can be applied by digital application forms (i.e., to which one cannot apply by e-mail or postal mail). Digital application forms were only filled in when the amount of vacancies is (too) low, and under the condition that no important information is missing from the vacancy.

[20] In Germany, some firm expect job candidates to hand in their application document via postal mailing. In this case, the automatically created application documents were printed out and send via mail.

Table 9. *Categorization of employer responses.*

	Response	Description
1	**Confirmation of receipt**	Confirmation message from the employer/job search website that our application has been received.[21]
2	**Missed call**	The employer has tried to reach the candidate by phone but did not leave a message in the voicemail. The name of the employer/company has to be traceable using the telephone number of the missed call in order to be coded as missed called.[22]
3	**Incomplete application**	The employer asks the candidate to give additional information as part of the application process, not as a result of a filtering/selection process but as a standardized procedure. Presumably this information is needed in order for the application to be processed in the first place. The request for additional information does not signal a particular interest in the candidate.
4	**More information wanted**	The employer asks for additional information about the candidate or asks to be called back. This variable indicates that the employer has most likely reviewed all applications and requests additional information about the candidate. Presumably not all candidates are contacted for additional information.
5	**Pre-invitation**	The candidate has passed an early selection process but s/he is not (yet) formally invited for an interview/meeting. There is clear evidence that the candidate has passed a selection process.[23]
6	**Invitation**	The employer wants to interview the candidate over the phone or on site. It has to be clear that the candidate is invited to a formal interview, not simply to a quick chat to verify the information provided on the CV.[16]
7	**Rejection**	The employer explicitly contacts the candidate to let him/her know that the s/he has not been selected or is out of the selection process.
8	**Detection**	The experiment has been detected by a firm, a recruiter, or by the job search website.
9	**Other**	The response does not fit any other category. For instance, the candidate has been redirected to another job (e.g., because of geographical proximity), the candidate was contacted unsolicited by the employer for another opening, or the position was already filled at the time the application was sent.

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[21] In Spain all applicants receive an automatic confirmation of receipt after submitting their application. Since this does not reflect any interest in the candidate by the employers, confirmations of receipt are not coded as feedback in Spain.

[22] Missed calls are defined as SMS notifications about missed calls to the cell number given on the application in Spain and as missed calls, voicemails and SMS notifications of missed calls in Germany, Norway and the Netherlands. Missed calls are not recorded in the UK.

[23] In Spain, pre-invitation and invitation cannot be distinguished because the job portal only sends out a standardized message ("the company has included your candidacy among those that continue the hiring process") and the employers often do not personally contact the candidate with information beyond that. All positive automatic responses are coded as invitations, and the pre-invitation category is not used in Spain.

Table 10. *Final response type by country.*

				Country				
		UK	*Spain*	*Germany*	*Germany*	*Norway*	*Netherlands*	Total
No response		2,242	683		888	1,08	1,132	6,025
	%	67.15	12.90		27.46	37.87	25.36	31.41
Confirmation of receipt		109	2,409		100	277	167	3,062
	%	3.26	45.49		3.09	9.71	3.74	15.96
Missed call		0	3		60	43	2	108
	%	0.00	0.06		1.86	1.51	0.04	0.56
Incomplete application		62	0		12	2	1	77
	%	1.86	0.00		0.37	0.07	0.02	0.40
Additional info wanted		237	12		440	264	442	1,395
	%	7.10	0.23		13.61	9.26	9.90	7.27
Pre-invitation		99	0.00		51	32	87	269
	%	2.96	0.00		1.58	1.12	1.95	1.40
Invitation		226	703		1,027	487	1,504	3,947
	%	6.77	13.27		31.76	17.08	33.70	20.57
Rejection		330	1,486		613	642	1,068	4,139
	%	9.88	28.06		18.95	22.51	23.93	21.58
Detection		0	0		0	0	5	5
	%	0.00	0.00		0	0.00	0.11	0.03
Other		34	0		43	25	55	157
	%	1.02	0.00		1.33	0.88	1.23	0.82
Total		3,339	5,296		3,234	2,852	4,463	19,184
	%	100.00	100.00		100.00	100.00	100.00	100.00

Based on the final response variable, three additional response variables are constructed. First, a collapsed version of the final response variable in which the response types missed calls, incomplete application, detection and other are recoded as missing. Second, a dummy variable differentiating positive (signal of interest) from negative (no signal of interest) responses; a response is coded as "positive" if the employer's final response to the application is a request for more information, a pre-invitation or an invitation, and as "negative" if the employer's response is a rejection, nothing more than a confirmation of receipt, or if not response at all was received. Third, a dummy variable differentiating (pre-)invitations from other response types.

2. Ethical considerations

This study has been approved by the relevant ethics committee in each country. Throughout the project, the requirements of the International Sociological Association Code of Ethics and the European Sociological Association Statement of Ethical Practice are abided, as well as the ethical standards and guidelines of Horizon 2020. This includes ensuring confidentiality of all human participants and ensuring no harm comes to the participants. Furthermore, the recommendations and

legal guidelines regarding field experiments of Riach and Rich (2002) and Klose and Kühn (2010) are followed.

Field experiments of discrimination involve sending out fictitious job applications to real vacancies. By definition, it involves deception of employers as they are approached by fictitious job applicants. The nature of the research requires that subjects remain unaware of their participation, and the condition of informed consent therefore cannot be met (Pager, 2007). However, field experiments have important methodological advantages for detecting discrimination compared to other methods (Riach & Rich, 2002). Carefully-controlled field experiments constitute an unequivocal procedure to outline discriminatory behaviour and for charting, over time, the effectiveness of equal opportunity legislation. Given the societal relevance of monitoring equal opportunity legislation and improving labour market effectiveness, the costs of the lack of informed consent are hence outweighed by the precise information provided on discrimination, which cannot be obtained in an unbiased way by any alternative method.

Throughout the project, confidentiality is protected, any harm to participants is prevented, and the burden on participants is minimized. First, confidentiality of the findings is secured. ID's of companies are saved separately in secure locations on a protected server of the university. All data was only shared between project members over secure connections and stored in secure locations on university servers. All data are carefully anonymized, removing all (combinations of) variables that could lead to identification of an individual employer. Second, although employers do not volunteer to participate, no harm results from the field experiment, as individuals cannot be identified in the deposited anonymised dataset and in our publications. The risk of harm to individual employers is even more minimized considering this is an unpaired correspondence test, in which only one application is sent to each vacancy. With such a design, it is impossible to make references about discriminatory behaviour of individual employers, as only the employer's responses to *one* application (either from a minority or majority applicant) are recorded. Finally, any inconvenience to employers and genuine applicants is minimised by promptly declining interview invitations or employment offers. Note that our study is restricted to the first phase of the selection process and does not interfere with later phases such as the job interview, which would require a higher burden for employers in terms of time and disturbance of the real application process.

Field experimental studies on discrimination often refrain from debriefing subjects after the study's completion (Pager, 2007). Pager (2007) refers to the risk for human resource personnel or managers who are thought to be discriminating and, consequently, fall under greater scrutiny by superiors. Furthermore, harm may occur to participants who receive debrief in field-based experiments, as

awareness of the study results may generate negative emotions (such as embarrassment) (McClendon, 2012). Finally, debriefing of individual participants might hamper the feasibility of field experiments in the near future, as the nature of the research requires that subjects remain unaware of the research goal. Hence, individual participants are not debriefed. Instead, the general public and employers' organizations are informed about the main findings of our study.

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Appendices

A.1 Examples experimental material

The following pages display examples of experimental material (i.e., cover letters and CVs) for one of the occupations (i.e., cook) for each of the five countries. Treatments are highlighted in yellow.

A.1.1 United Kingdom

Dear Sir or Madam,

I would like to apply for the position of (job title) which I have seen advertised on [*job platform*]. I have worked for four years as a cook in kitchens and dining facilities. I like my current job but I am seeking new challenges in a role that would allow me to reach my full potential. I would be happy to relocate.

As a chef de partie at [*current employer*] I prepare, cook and serve meals to the highest standards required. Over the years I have improved my cooking skills with a la carte menu and also gained experience in buffets and catering. I understand the importance of health and safety regulations and basic food hygiene procedures. I always make sure that food is stored and chilled properly and that the kitchen and the equipment are kept clean.

My experience in a busy restaurant has prepared me well to work under pressure. While taking on a wide variety of tasks and duties I have been able to show my ability to rise to challenges. I am a fast learner and I am always eager to develop new skills. My present employer has been very satisfied with my work and has passed more responsibilities on to me. For example, since last year I have been training the new kitchen assistants. I am confident that I can bring the same level of high performance to your team.

I am very flexible and I am happy to work outside of regular working hours or at weekends. I can work well on my own but I also enjoy being in a team. My colleagues and friends think I am a pleasant and warm person who gets along with people from all walks of life. I am a team player who values a positive work environment and that is why I am always friendly and attentive to other people's needs.

I am a passionate cook both in my professional life and in my spare time. This is shown through my volunteer work for a Muslim youth project at my local community centre, where I help prepare meals for various events like local fairs and open days.

Thank you for taking the time to consider my application. I am keen to discuss my experience and skills with you in more detail. Note that although I have a Turkish background all my education and training has been in Britain since the age of 6 and I have the right to work in the UK. I look forward to hearing from you.

Yours faithfully,

[*name surname*]

[*signature*]

[*Name Surname*]

[*address*]

Mobile: [*phone number*] | **Email:** [*name.surname*]@mailservices.me.uk

Personal statement

A qualified cook with over four years of experience, now looking for opportunities to further develop in the hospitality sector. A self-starter, able to work on own initiative and as part of a team.

A hard-working person, consistently meeting the targets of the kitchen and responsible for training the new kitchen assistants.

A friendly and reliable person who gets on well with a wide range of people. A team player who values a good work environment.

Work Experience

July 2014 - present

Chef de Partie, [*current employer*]*,* [*city current employer*]
- Assisting the head chef in the day-to-day running of the kitchen
- Preparing and cooking meals
- Following recipes to meet restaurant's standards
- Strictly complying with food quality and temperature regulations
- Overseeing kitchen administration and stock management
- Always providing a high quality service from fresh ingredients and on time
- Responsible for training new kitchen assistants

September 2012 - June 2014

Commis Chef, [*first employer*]*,* [*city first employer*]
- Washed, peeled and trimmed food for cold buffets and side dishes
- Ensured that all food served was arranged properly and met quality standards
- Checked and ordered stock from suppliers, unloaded deliveries and organised the storeroom
- Checked the temperature of the fridge and followed safety and hygiene protocols

Education

2010-2012

[*educational institution*]
Level 2 Diploma in Professional Cookery (City & Guilds)

2005-2010

[*educational institution*]
5 GCSEs grades A-C, including English and Math

Skills

Computer skills: Microsoft Office, Outlook

Training: Essential Food Hygiene certificate, COSHH training

Language skills: Bilingual English and Turkish | French (basic)

Driving: Full, clean UK driving license; in possession of own car

Volunteer work

January 2014 - present

Volunteer at Muslim Youth Enrichment Project

Assisting with cooking and preparation of meals for various events like open days and local fairs.

References

Available on request

A.1.2. Germany

[*name surname*]   [*Berlin, date*]

[*address*]

[*address employer*]

Bewerbung als *Koch_Köchin*

Sehr geehrte/r [*contact person*]

mit großem Interesse habe ich Ihre Stellenausschreibung auf Jobbörse.de gelesen und möchte mich bei Ihnen bewerben. Ich bin ausgebildete/r ***Koch_Köchin*** mit Berufserfahrung.

Seit dem Abschluss meiner Ausbildung bei [*first employer*] arbeite ich bei [*current employer*]. Nun möchte ich meine Kenntnisse erweitern und suche die berufliche Veränderung. Außerdem möchte ich näher nach [*place of birth*] ziehen, native: wo ich geboren und aufgewachsen bin. 1st gen: wohin meine Familie aus [*country of origin*] gezogen ist als ich 6 Jahre alt war und wo ich aufgewachsen bin. 2nd gen: wohin meine Familie aus [*country of origin*] gezogen ist und wo ich geboren und aufgewachsen bin.

Bei [*current employer*] bin ich in die Vorbereitung und Herstellung von Speisen auf stets hohem Niveau eingebunden. Ich habe Erfahrungen im Catering, in der Kantinenversorgung und mit Großküchen, und konnte in den letzten Jahren meine Kochkünste im à-la-carte Bereich verfeinern. Neben der Zubereitung von Speisen gehören die Überprüfung des Warenbestands und des Kühlhauses zu meinem Verantwortungsbereich. Dabei achte ich auf die Einhaltung der Hygienerichtlinien, auf Sauberkeit und Ordnung in der Küche, und auf die richtige Lagerung der Lebensmittel.

Durch meine Arbeit in der Küche habe ich gelernt unter Druck zu arbeiten. Aufgrund der Vielzahl an Aufgaben in meinem Job bin ich es gewohnt stets neue Herausforderungen zu meistern und meine Fähigkeiten zu erweitern. Insbesondere wegen meiner durchgehend hohen Arbeitsleistung hat mir der Küchenchef bereits mehr Verantwortung übertragen. So bin ich beispielsweise seit letztem Jahr verantwortlich für die Einweisung neuer Mitarbeiter in der Küche.

Ich bin flexibel und habe keine Probleme damit lange oder am Wochenende zu arbeiten. Ich kann sowohl selbständig als auch gut im Team arbeiten.

Meine Freunde und Arbeitskollegen beschreiben mich als eine freundliche und soziale Person, die gut mit anderen zurechtkommt, sowohl auf der Arbeit als auch anderswo. Ich bin ein Teamplayer und schätze eine angenehme Arbeitsatmosphäre, deshalb bin ich immer freundlich und achte auf die Bedürfnisse anderer Menschen.

Meine berufliche Tätigkeit bereitet mir große Freude. In meiner Freizeit engagiere ich mich ehrenamtlich in einem Muslimischen Jugendprojekt unseres Nachbarschaftszentrums, wo ich neben anderen Dingen bei der Vorbereitung von Speisen für verschiedene Veranstaltungen helfe, z. B. am Tag der offenen Tür.

Ich würde mich sehr freuen, Sie in einem persönlichen Vorstellungsgespräch von meinen Kompetenzen und meiner Motivation zu überzeugen.

Mit freundlichen Grüßen

[*signature*]

<div align="center">**Lebenslauf**</div>

<div align="center">[*name surname*]</div>

Anschrift	[*address*]
Telefon	[*phone number*]
E-Mail	[*name.surname*]@gmx.de
Geburtsdatum	[*date of birth*] in [*place of birth*]
Nationalität	Deutsch

Berufstätigkeit

Seit 09/13	**Koch/Köchin** bei [*current employer*]

Arbeitsschwerpunkte:

- Unterstützung des Küchenchefs im Tagesgeschäft
- Zubereitung von Gerichten unter Verwendung frischer Zutaten
- Sicherstellung hoher Qualitätsstandards und reibungsloser Abläufe
- Einarbeitung von neuem Küchenpersonal

09/10-08/13	**Auszubildende/e** bei [*first employer*]

Arbeitsschwerpunkte:

- Speisezubereitung für Schulcatering, v.a. Vor- und Nachspeisen
- Bestellwesen und Lagerhaltung

Schule und Ausbildung

09/10-08/13	Ausbildung als **Koch/Köchin,** [*educational institution*]
	(IHK-Abschluss: befriedigend)
08/01-07/10	Grund- und Oberschule in [*place of birth*] und Berlin
	(Hauptschulabschluss: gut)

Besondere Kenntnisse und Interessen

Sprachkenntnisse	Deutsch (Muttersprache), [*language country of origin*] (Muttersprache), Englisch (gut)
EDV	gute MS-Office-Kenntnisse
Ehrenamt	Unterstützung eines Muslimischen Jugendprojektes u.a. bei der Speiseversorgung auf Veranstaltungen
Sonstiges	Führerschein Klasse B

Berlin, [*date*]

[*signature*]

A.1.3 The Netherlands

[*address*]   Utrecht, 2017-04-28

Betreft: sollicitatie naar de functie van zelfstandig werkend kok

Geachte [*contact person*],

Met veel interesse las ik op Indeed uw vacature voor de functie van zelfstandig werkend kok. Dit is precies de functie waar ik naar op zoek ben en met deze brief solliciteer ik dan ook graag naar deze baan. Ik ben een goed opgeleide kok met vier jaar werkervaring. Na mijn baan als keukenassistent bij [*first employer*], ben ik sinds twee jaar werkzaam als kok bij [*current employer*]. Ik ben momenteel op zoek naar een nieuwe uitdaging om mijn kennis en vaardigheden verder te ontwikkelen. Ik zou graag blijven werken in de horecasector maar willen terugkeren naar de regio [*place of birth*], de regio waar ik ben opgegroeid. Mijn familie komt oorspronkelijk uit Mexico, maar ik ben geboren in [*place of birth*] en ik heb al mijn opleidingen in Nederland voltooid.

In mijn huidige baan ben ik verantwoordelijk voor het bereiden van maaltijden en het bijhouden van het koelmagazijn. Daarnaast heb ik ervaring met á la carte- en banketmenu's en ben ik in staat diverse gerechten voor het buffet te bereiden.

In mijn huidige baan heb ik geleerd om onder hoge druk te werken. Door de vele taken in mijn huidige functie ben ik gewend om nieuwe uitdagingen aan te gaan. Ik ben bovendien erg gemotiveerd om mijn kennis en vaardigheden te verbreden. Door mijn goede prestaties op mijn werk heb ik van mijn huidige werkgever meer verantwoordelijkheden gekregen. Sinds afgelopen jaar ben ik bijvoorbeeld verantwoordelijk voor het instrueren en begeleiden van nieuwe keukenmedewerkers.

Ik ben erg flexibel en bereid om lange werkdagen te maken en in weekenden of avonden te werken. Ik kan goed zelfstandig werken, maar ook in teamverband kan ik uitstekend functioneren.

Mijn vrienden en collega's vinden dat ik een vriendelijk en betrouwbaar persoon ben die goed met andere mensen kan omgaan, zowel op het werk als privé. Ik ben een echte teamplayer die een prettige werkomgeving erg waardeert. Daarom ben ik altijd vriendelijk en heb ik oog voor de mensen om me heen.

Ook in mijn vrije tijd kook ik graag. Zo ben ik als vrijwilliger actief bij een christelijk jongerencentrum in Utrecht waar ik meehelp met het bereiden van maaltijden voor evenementen zoals lokale markten en open dagen.

Ik kijk uit naar uw antwoord en licht mijn motivatie graag toe in een persoonlijk gesprek.

Voor meer informatie verwijs ik u graag naar mijn bijgevoegde curriculum vitae.

Met vriendelijke groet,

[*name surname*]

[*signature*]

CURRICULUM VITAE PERSOONLIJKE GEGEVENS

Naam: [name surname]
Adres: [address]
Telefoonnummer: [phone number]
E-mail: [name.surname]@gmail.com
Geboren: [date of birth]
Te: [place of birth]
Geslacht: Vrouw
Nationaliteit: Nederlandse
Burgelijke staat: Ongehuwd

PROFIEL

Ik ben een goed opgeleide kok met 4 jaar werkervaring, in staat om zelfstandig en in teamverband te werken. Ik ben een ijverig persoon, succesvol in het behalen van de doelstellingen in de keuken en verantwoordelijk voor het instrueren en begeleiden van nieuw keukenpersoneel. Ik ben een teamplayer met een vriendelijke uitstraling, betrouwbaar en in staat om met verschillende karakters goed overweg te kunnen. Momenteel ben ik op zoek naar nieuwe uitdagingen om me verder te kunnen ontwikkelen in de horecasector.

WERKERVARING

2014 – heden: Kok

[current employer], [city current employer]

- Assisteren van de chef-kok bij de dagelijkse gang van zaken in de keuken
- Bereiden en koken van verse maaltijden
- Consistente en tijdige bereiding van hoogstaande maaltijden, altijd bereid met verse ingrediënten
- Verantwoordelijk voor het begeleiden van nieuwe keukenmedewerkers

2012 – 2014:   Keukenassistent

[first employer], [city first employer]

- Assisteren bij het wassen, pellen en snijden van voedsel en de bereiding van koude maaltijden en bijgerechten
- Bijhouden, aanvullen en ordenen van de keukenvoorraden

OPLEIDING

2009-2012:   **Zelfstandig werkend kok (MBO niveau 3)**

[educational institution]

Cijfergemiddelde: 7.5

Diploma behaald

2005-2009:   **VMBO-T**

[educational institution]

Diploma behaald

OVERIGE VAARDIGHEDEN

Certificaten:	HACCP, behaald in 2013
PC-vaardigheden:	Microsoft Office
Talenkennis:	Nederlands (moedertaal), Spaans (Mexicaans, moedertaal), Engels (goed)
Rijbewijs:	Rijbewijs B, in het bezit van een auto

NEVENACTIVITEITEN

Vrijwilligerswerk: Actief in een christelijk jongerencentrum te [*city of residence*]
- Bereiden van maaltijden voor publieke evenementen

A.1.4 Norway

Søknad på stilling som kokk

Jeg leste annonsen deres på nav.no, og vil gjerne søke på stillingen. Jeg er faglært kokk med arbeidserfaring. Etter at jeg fullførte lærlingperioden min i kantinen til et større sykehus har jeg jobbet som kokk hos Restaurant [*current employer*] i Oslo. Nå har jeg lyst til å møte nye utfordringer, og ser derfor etter en ny stilling. I tillegg ser jeg etter stillinger i nærheten av Oslo, hvor jeg har familie og vokste opp. Familien min kommer opprinnelig fra USA, men jeg er født i Norge og har tatt all utdanning og opplæring her.

Hos [*current employer*] forbereder og lager jeg varme og kalde retter fra bunnen av, i tillegg til at jeg har ansvar for kjøl- og fryselager. Til nå har jeg hatt mest erfaring med a la carte-menyen, men jeg har også jobbet med å planlegge og forberede buffeter og catering. Samtidig har jeg erfaring fra et større institusjonskjøkken og mat fra mange ulike landbakgrunner. Jeg lærer fort og ser frem til å få muligheten til å opparbeide ny kunnskap og ferdigheter.

Jeg har god arbeidsmoral og gjør alltid mitt beste på jobb. Fordi jeg er strukturert og effektiv, fikk jeg også større ansvar av min nåværende arbeidsgiver. Det siste året har jeg for eksempel hatt ansvar for opplæring av nye ansatte i kjøkkenrutinene våre. Jeg er fleksibel når det kommer til arbeidstid, og jeg jobber gjerne lange skift og/eller helger. Jeg trives også godt i hektiske omgivelser hvor det skjer mye på en gang. Jeg er glad i å samarbeide med andre, men er også vant til å jobbe selvstendig. Venner og kollegaer ser på meg som en ærlig og pålitelig person, som kommer godt overens med andre, både på jobb og ellers. Jeg setter stor pris på et godt arbeidsmiljø, og gjør mitt beste for å bidra til dette ved å være imøtekommende og hyggelig.

Jeg er veldig glad i å lage mat, både i jobbsammenheng og på fritiden. Jeg er et aktivt medlem i en lokal kristen ungdomsorganisasjon, hvor jeg blant annet hjelper til med matlaging til møter og samlinger.

Jeg håper på å høre fra dere, og kommer gjerne til et intervju for å snakke mer om stillingen. Referanser og vitnemål tas med hvis ønskelig.

Vennlig hilsen,
[name surname]
[*signature*]

CURRICULUM VITAE

Personlig informasjon

Navn:	[name surname]
Kjønn:	Mann
Adresse:	[address]
Telefonnummer:	[phone number]
Email:	[name.surname].2302@gmx.com
Fødselsdato:	[date of birth]
Sivilstatus:	Enslig

Arbeidserfaring

2013 -   Kokk
[current employer], [city current employer]
- Hjelper kjøkkensjefen med administrativt arbeid
- Arbeider i tråd med lovpålagte kvalitetsstandarder (HACCP)
- Kvalitetssikring og effektiv produksjon av retter fra bunnen av
- Opplæring av nye ansatte

2011 - 2013   Kjøkkenassistent i kantine

[first employer], [city first employer]
- Forberedte råvarer til buffeter og lunsjer
- Organiserte varebeholdning og tok imot leveringer

Utdanning

2009 – 2013:   Kokkfaget VG3
[educational institution]
Gjennomsnittskarakter: 5
Fagbrev i Kokkefaget
2006 – 2009:   Ungdomsskole
Oslo

Annet

IKT: God kjennskap til MS Office-verkttøy

Språk: Norsk (morsmål), Engelsk (morsmål), Fransk (godt)

Førerkort: Klasse B, disponerer eget kjøretøy

Frivillig arbeid: Aktivt medlem av en kristen ungdomsorganisasjon i Oslo

A.1.5 Spain

Tengo el título de FP Medio de Técnico en Cocina y Gastronomía y cuento con una amplia experiencia laboral en el sector. Desde que terminé mis estudios en 2013 he trabajado en varios restaurantes y colectividades. Mi objetivo ahora es adquirir más experiencia y habilidades profesionales y por eso busco un cambio de trabajo. Nací en República Dominicana, pero llegué a Madrid con 6 años y he hecho todos mis estudios en España.

En mi puesto de trabajo actual me encargo de preparar, cocinar y servir los alimentos, así como de supervisar las instalaciones y almacenar la mercancía. Tengo experiencia en restaurantes de menú a la carta y también en buffets y empresas de catering. Además, me encargo de que el equipo de cocina esté en perfectas condiciones de higiene y dispongo del Certificado de Manipulación de Alimentos.

Mi trabajo como cocinero me ha servido para aprender a trabajar bien bajo presión. Debido a la gran variedad de tareas que hago en mi puesto actual estoy acostumbrado a afrontar nuevos retos y siempre estoy dispuesto a ampliar mis conocimientos de cocina. Además, como resultado de mi buen hacer en el trabajo mis superiores me han dado más responsabilidades. Por ejemplo, desde el año pasado soy el responsable de formar al nuevo personal en la cocina.

Tengo flexibilidad horaria y no me importa trabajar horas extra o en fines de semana. Trabajo bien tanto en equipo como de manera autónoma.

Mis amigos y compañeros de trabajo me ven como una persona de trato agradable y cercano que se lleva bien con los demás, tanto dentro como fuera del trabajo. Me considero un buen compañero y alguien en quien se puede confiar. Valoro que haya buen ambiente en el trabajo y por eso siempre soy amable y atento con los demás.

Me gusta cocinar, tanto en mi trabajo como en mi vida personal. Por ejemplo, en mi tiempo libre soy voluntario de la Asociación Vecinal de Jóvenes de Madrid y ayudo en la preparación de comidas durante eventos en días festivos o jornadas de puertas abiertas.

Me encantaría poder tener una entrevista con usted para que me conozca y saber más sobre el puesto de trabajo.

[*signature*]

Carlos Manuel Vasquez Pérez

Experiencia

Cocinero
[*current employer*]
Enero 2015 – Actualmente (2 años y 5 meses)

Empleado/a
- Colaborar con el chef en las tareas diarias e la cocina.
- Preparación y posterior emplatado de los alimentos
- Siempre me preocupo por proporcionar un servicio eficiente y de calidad, cuidando al detalle la preparación de los platos.
- Soy responsable de supervisar al nuevo personal de cocina.

Ayudante de cocina
[*first employer*]
Septiembre 2013 - Diciembre 2014 (1 año y 3 meses)

Empleado/a
- Ayuda en el lavado, pelado, cortado y preparación de alimentos para el buffet frío y las guarniciones.
- Comprobación y ordenación de stock y organización de la despensa.

Voluntario
[*youth project*] de Madrid
Junio 2013 - Noviembre 2014 (1 año y 5 meses)

6.000 € - 12.000 € Bruto/año (No visible)
Becario/a - Prácticas
- Preparación de comidas para eventos de la asociación, como fiestas y jornadas de puertas abiertas.

Estudios

Hostelería y Turismo
[*educational institution*]
Septiembre 2011 - Junio 2013 (1 año y 9 meses)

Educación Secundaria Obligatoria
[*educational institution*]
Septiembre 2007 - Junio 2011 (3 años y 9 meses)

TIT (Otros tCambridge English: First (FCE)
[*educational institution*]
Abril 2013

Carnet de Manipulador de Alimentos
[*educational institution*]
Septiembre 2011

Idiomas

	Hablado	Escrito	Leído
Español	Nativo	Excelente	Excelente
Inglés	Intermedio	Alto	Excelente

Other datos

Carnet de conducir
B

Vehículo propio
Sí

Nacionalidad
España

Autónomo
No

Situación laboral y preferencas

Situación laboral
Tengo trabajo pero quiero cambiar (Estoy buscando trabajo activamente)

Motivos para el cambio de empleo
Tener nuevas experiencias laborales

Años totales de experiencia
De 3 a 5 años

Puesto preferido
Cocinero

Categorías preferidas
Turismo y restauración (Hostelería, Restauración)

Disponibilidad para viajar
Buena

Disponibilidad para cambiar de residencia
Buena

Destinos preferidos
Madrid

A.2 Search terms vacancies by country and occupation

Table A.1 to A.5 give an overview of the keywords used to identify relevant vacancies to apply to on the job portals for each of the countries participating in the GEMM-project separately.

Table A.1. *Search terms for UK job portals by occupation.*

	Occupation	Search terms
1	**Cook**	Cook, chef de partie, sous chef, chef
2	**Electrician**	-
3	**Payroll Clerk**	Payroll officer, payroll clerk, wages clerk, payroll administrator, payroll accountant, payroll advisor, payroll specialist, bookkeeper, accounts assistant, junior accountant, office administrator
4	**Plumber**	-
5	**Receptionist**	Receptionist, front of house, hotel receptionist
6	**Sales Representative**	Sales representative, sales agent, field sales, marketing assistant
7	**Software Developer**	Software developer, developer, software engineer, system analyst, system engineer, system programmer, application programmer, software architect, application developer
8	**Store Assistant**	Sales assistant, shop assistant, retail assistant, store assistant, store staff, customer service sale, cashier
9	**Hairdresser**	-
10	**Carpenter**	-

Table A.2. *Search terms for German job portals by occupation.*

	Occupation	Search terms
1	**Cook**	Koch, Köchin, Sous chef, Chef de Partie
2	**Electrician**	-
3	**Payroll Clerk**	Bürokaufmann, Bürokauffrau, Lohnabrechnung, Lohnbuchhaltung, Personalsachbearbeiter, Lohnbuchhalter, Bürofachkraft, Bürofachwirt
4	**Plumber**	-
5	**Receptionist**	Hotelfachfrau, Hotelfachmann, Hotelfachkraft, Hotelfachkräfte, Konferenzservice, Rezeption, Empfang
6	**Sales Representative**	Vertriebsagent, Vertriebsfachmann, Vertriebsberater, Sales manager, Sales representative, Key account manager, Account manager, Marketing assistant
7	**Software Developer**	Softwareentwickler, Informatiker, Programmierer, Softwareingenieur, Anwendungsentwickler, Anwendungsprogrammierer
8	**Store Assistant**	Kassierer, Verkäufer, Fachverkäufer
9	**Hairdresser**	Friseur
10	**Carpenter**	-

Table A.3. *Search terms for Dutch job portals by occupation.*

	Occupation	Search terms
1	**Cook**	basiskok*, kok*, zelfstandig werkend kok*, chef de partie, restaurantkok, instellingskok*, dieetkok, scheepskok
2	**Electrician**	elektromonteur*, technische dienst, onderhoudselektricien*, onderhoudselektriciën, monteur elektrotechnische panelen, monteur elektrische installaties, monteur brandalarmsystemen, monteur bliksembeveiliging, monteur beveiligingsinstallaties, lichtreclamemonteur, installateur*, elektricien*, elektriciën, beveiligingsmonteur, beveiligingsinstallateur, allround monteur huisaansluitingen, alarminstallateur, aardingsmonteur
3	**Payroll Clerk**	administratief medewerker*, administrateur*, administratief*, administratief assistent, kantoor-assistent, kantoormedewerker, kantoorhulp, kantoorbediende, kantoorassistent, waardencontroleur, boekhouder, assistent-accountant*, controller*, assistent controller
4	**Plumber**	loodgieter*, zwembadinstallatiemonteur, zinkwerker, watertechnisch installateur, verwarmingsmonteur, vakman buisleidingen, sprinklermonteur, sanitairmonteur*, rioolreparateur, rioolmonteur, rioolaanlegger, rioloog, rioleringsmedewerker, puttenbouwer, pijpleidingwerker*, pijplasser, pijpfitter*, onderhoudsmonteur verwarming, onderhoudsmonteur dakwerk, sanitair, verwarming, gas- en waterleiding, onderhoudsloodgieter, monteur gas, monteur centrale verwarming woningbouw, monteur centrale verwarming utiliteitsbouw, kabelwerker, kabellegger, installateur cv, gawalomonteur, gastechnisch installateur, gasmonteur, gasfitter, fitter, eerste monteur warmte, distributiemonteur gas, cv-monteur, buizenlegger, buisleidinglegger, badkamermonteur, assistent-loodgieter
5	**Receptionist**	hotelreceptionist*, receptionist*, medewerker reserveringen, informatrice, informatiebaliemedewerker, informant, frontofficemedewerker, customerservicemedewerker, baliemedewerker*, servicebaliemedewerker, serviceadviseur, publieksmedewerker, klantenservicemedewerker*, klanteninformatiemedewerker, inlichtingenmedewerker, klachtenbehandelaar*
6	**Sales Representative**	accountmanager*, commercieel medewerker, commercieel manager*, sales medewerker, sales manager*, sales*, sales executive, marketing manager, marketingmanager, vertegenwoordiger*, plugger, exportmanager, exporteur, medewerker verkoop
7	**Software Developer**	software specialist*, software ontwikkelaar*, software ontwerper, software consultant, software architect, software developer, software designer*, softwarespecialist, softwareontwikkelaar, softwareontwerper, softwareconsultant, softwarearchitect, softwaredeveloper, softwaredesigner, applicatiespecialist, applicatieontwikkelaar, applicatieontwerper, applicatieconsultant, applicatiearchitect, applicatiedesigner, applicatie specialist*, applicatie ontwikkelaar*, applicatie ontwerper, applicatie consultant, applicatie architect, applicatie developer, applicatie designer, application specialist, application ontwikkelaar, application ontwerper, application consultant, application architect, application developer, application designer
8	**Store Assistant**	verkoopmedewerker*, verkoper*, caissiere*, kassiere*, caissière, kassière
9	**Hairdresser**	kapper*, salonassistent, pruikenmaker, kappershulp, haarwerkspecialist, haarstylist*, afrokapper
10	**Carpenter**	timmerman*, werkplaatstimmerman, wandensteller*, wand- en plafondmonteur, trappensteller*, timmerkracht*, standbouwer, scheepstimmerman, scheepsinterieurbouwer, scheepsbeschieter, rolluik- en zonweringinstallateur, restauratietimmerman, kozijnmonteur*, kozijnenzetter, keukenmonteur, jachtbouwer, houtskeletbouwer, grafkistenmaker, decorbouwer, bouwtimmerman, betontimmerman

Note: Keywords marked with a * were used for manual searches of for vacancies within the job data base.

Table A.4. *Search terms for Norwegian job portals by occupation.*

	Occupation	Search terms	Category filter
1	**Cook**	Kokk	*Mat og servering*: Kjøkken- og kantinemedarbeider.
2	**Electrician**	Elektriker gr. L	*Håndarbeider*: Elektriker
3	**Payroll Clerk**	Lønnskonsulent Regnskapsmedarbeider Regnskapsfører Regnskapskonsulent Regnskapskontrollør	*Kontor og administrasjon*: Kontorarbeid. *Økonomi og regnskap*: Controller, Lønn, Regnskap, Økonomistyring og budsjettering.
4	**Plumber**	Rørlegger VVS	*Håndarbeider*: Rørlegger
5	**Receptionist**	Resepsjonist	*Hotell og overnatting*: Resepsjon. *Kontor og administrasjon*: Resepsjon.
6	**Sales Representative**	Selger (engross) Markedsføring og reklame Markedsfører (agent)	*Salg*: Løsningssalg, Produktsalg, Teknisk salg
7	**Software Developer**	Systemutvikler IT-konsulent IT-rådgiver	*IT-drift og vedlikehold*: Drift/operation. *IT-utvikling*: Database, Front-end, IT-sikkerhet, QA-testing, Systemariktekt, Utvikler (generell)
8	**Store Assistant**	Butikkmedarbeider	*Butikkansatt*
9	**Hairdresser**	Frisør	*Frisør*
10	**Carpenter**	Tømrer	*Håndarbeider*: Snekker/Tømrer

Note: The biggest job portal used to send out applications in Norway operates on a list of category filters (checkboxes). This table's right-hand column indicates these filters, in the following format: Main category: Subcategory, subcategory, subcategory.

Table A.5. *Search terms for Spanish job portals by occupation.*

	Occupation	Search terms
1	**Cook**	cocinero
2	**Electrician**	-
3	**Payroll Clerk**	administrativo, secretario, contable
4	**Plumber**	-
5	**Receptionist**	recepcionista
6	**Sales Representative**	comercial
7	**Software Developer**	informático, java
8	**Store Assistant**	dependiente
9	**Hairdresser**	peluquero
10	**Carpenter**	-