Are employers in Britain discriminating against ethnic minorities?

Summary of findings from the GEMM project

- A field experiment we recently conducted shows that British employers discriminate against job applicants with an ethnic minority background when making hiring decisions. We applied to nearly 3200 jobs, randomly varying the minority background of fictitious job applicants while holding their skills, qualifications and work experience constant. On average, nearly one in four applicants from the majority group (24%) received a positive response (i.e. callback) from employers. The job search effort was less successful for ethnic minorities who, despite having identical resumes and cover letters, needed to send 60% more applications in order to receive as many callbacks as the majority group. The discrimination encountered by minorities does not vary by gender.

- Concerns about poor English language fluency or imperfect recognition of foreign qualifications cannot explain these findings: all minority applicants in our field experiment were either British-born or had arrived in Britain at the age of six, and had obtained all their education and training in Britain. This information was clearly signaled in the resume and stressed in the cover letter and both documents were written without any spelling mistakes.

- The discrimination experienced by minority groups varies depending on their country of origin. While applicants from Western Europe and the US were treated just as well as the majority group, applicants from more visible and culturally distant minorities – such as Black Africans and applicants from MENA countries – were penalized heavily. Analyses by gender reveal that the relatively favorable treatment of applicants from Western Europe and the US is limited to women; for men, it is applicants from India and East-Asia (groups that are often referred to as 'model minorities') that are on a par with the majority group.

- Discrimination against Pakistani and Nigerians is at an alarming level. Higher education does not seem to be a leveler: for example, Nigerians with a university degree and relevant work experience still had to send twice as many applications as the majority group to be considered for software engineering and marketing assistant jobs.

- Adding information does not help to reduce discrimination. Applicants from Pakistan, Bangladesh, Africa or the MENA countries who stressed their competence and past achievements in the job application still received significantly lower callbacks from employers than white British applicants who did not include information on performance in their resume.

- Minorities from countries with a sizeable Muslim population (Pakistan, Bangladesh, the MENA region) face enormous barriers. To examine religious discrimination, we compared applicants who were working as volunteers in a Muslim community centre with applicants from the same country of origin who were doing voluntary work in a local community centre with no religious affiliation. Their callbacks barely differed. In other words, employers were reluctant to invite *any* applicant originating from Muslim-majority countries, regardless of whether or not they disclosed their religion in the job application. This finding echoes the strong anti-Muslim attitudes recorded in recent surveys.

- In spite of relatively strong laws prohibiting discrimination on ethnic, racial and religious grounds (the MIPEX index ranks Britain among the countries with the most favorable anti-discrimination policies, together with traditional countries of immigration like Canada and the US), the level of discrimination recorded in Britain, and its pervasiveness across occupations and groups, is not any lower than that found in the other European countries included in the GEMM study (Germany, Netherlands, Norway, Spain).

- Discrimination is an enduring phenomenon. When comparing the GEMM findings with those from previous field experiments conducted in Britain, we found no sign of progress for Caribbeans or for South Asians as a whole over the past 50 years.

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The barriers experienced in the labour market by members of ethnic minority groups relative to members of the white British majority have been well-documented in the sociological literature. Across studies that make use of a variety of data sources, ethnic minorities were shown to be systematically disadvantaged[1]. Relatively poor employment outcomes are not limited to first generation migrants. British-born minorities, despite considerable progress in learning English and obtaining educational qualifications, still struggle when trying to get a job, which led some authors to the sobering conclusion that "*continued racial discrimination in the labour market against second-generation black people and people of Pakistani or Bangladeshi background cannot be ruled out as a significant part of the explanation for their continuing disadvantage*"[2].

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[1] Heath, A. F., Rothon, C. and Kilpi, E. (2008). The second generation in Western Europe: Education, unemployment, and occupational attainment. *Annual Review of Sociology* 34: 211-235.
[2] Li, Y. and Heath, A. (2015). "Are we becoming more or less ethnically-divided?". CSI Briefing Note n. 10. Available at: http://csi.nuff.ox.ac.uk/wp-content/uploads/2015/03/CSI_10_Ethnic_Inequalities.pdf.

Evidence from survey research, however, can only provide a very indirect test of discrimination: it is always possible that the systematic disparities found between groups are spurious, that is, due to characteristics that remain unobservable to the researcher such as motivation, reliability or social skills. In this briefing note, we report the results from a correspondence test that we designed with the aim to test whether minorities are discriminated on ethnic or religious grounds when looking for a job in the British labour market. This test was part of a comparative project – the GEMM study – conducted simultaneously in five European labour markets (Britain, Germany, the Netherlands, Norway and Spain).

Between November 2016 and December 2017, with the help of a team of research assistants at Nuffield College, we applied to nearly 3200 jobs advertised online on a popular recruitment platform, randomly varying the minority background of fictitious job applicants while holding their skills, qualifications and work experience constant. We then tracked the responses received from employers and, in line with the standard protocol of field experiments, politely declined any invitation to job interviews or requests to provide additional information saying that we were no longer interested in the job (further details on the design of the field experiment are reported in the information box below). We regard any instance when members of a minority group are treated less favourably than members of a majority group with otherwise identical characteristics as clear and convincing evidence of discrimination. It should be kept in mind that a very large majority of these openings were located in England and that our results may be less indicative of the discrimination faced by ethnic minorities in other parts of the UK.

Is there evidence of discrimination against ethnic minorities?

To measure discrimination, we compare callback rates across groups. Callback rates refer to the percentage of applications from a given group that received a positive response from the employer. We interpret as positive responses any reply suggesting a genuine interest in the applicant, such as invitations to job interviews, requests to provide additional information on skills or previous experience, to complete a test or to schedule a phone appointment with the employer. We also report callback ratios, calculated as the ratio between the callbacks received by the majority group and the callbacks received by the minority group. Callback ratios provide a very intuitive measure of discrimination and are easy to compare.

Across all occupations, we found clear evidence of discrimination. On average, nearly one in four applicants from the majority group (24%) received a positive response from employers. The job search effort was less successful for ethnic minorities: only 15% of them received a positive response. The resulting callback ratio of 1.6 indicates that minority applicants, despite having identical resumes and cover letters, needed to send 60% more applications in order to receive as many callbacks as the majority group. This finding is very much in line with the callback ratio of 1.55 that was found in a recent meta-analysis of 43 separate studies conducted in OECD countries between 1990 and 2015[3].

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[3] Zschirnt, E. and Ruedin, D. (2016): Ethnic discrimination in hiring decisions: a meta-analysis of correspondence tests 1990–2015. *Journal of Ethnic and Migration Studies* 42(7): 1115-34.

Do employers' preferences follow a clear ethnic hierarchy?

One innovative aspect of the GEMM study is the focus on a large number of minority groups. Next to the majority group, 35 countries of origin were varied in the experimental design. Applicants with Pakistani and Nigeria heritage were oversampled to be able to obtain more precise estimates for these specific groups. We merged the origin countries into broader regional groups: Western Europe and the US; Eastern Europe and Russia; Caribbean and South America; Pakistan and Bangladesh (South Asia); North Africa and the Middle East (MENA); India and East Asia ('model minorities'); Sub-Saharan Africa. In total, 25% of the applications were from the majority group, 25% from the oversampled groups (12.5% from Nigerians and 12.5% from Pakistanis), and 50% from all the remaining groups. This source of variation in the field experiment allows us to test whether employers' preferences follow a clearly defined ethnic hierarchy. Moreover, the focus on minority groups that are typically not included in British field experiments but are still present in an increasingly diverse country such as Britain increases the external validity of the study.

In table 1, we show the callbacks received by the majority group, the two oversampled minority groups, and all the other minorities. The discrimination faced by applicants with Pakistani and Nigerian backgrounds is alarming. The callback ratio of 1.7 (1.8) indicates that Pakistani (Nigerian) applicants needed to send, on average, 70% (80%) more applications to receive a positive response from an employer than majority applicants. When comparing the discrimination rate in high-skilled occupations requiring a university degree (software engineer, marketing assistant and sales representative) with that found in all other occupations included in the GEMM study (cook, store assistant, payroll/admin clerk, receptionist), higher education does not seem to be a leveler. For example, Nigerians with a university degree and relevant work experience still had to send twice as many applications as the majority group to be considered for software engineering and sales or marketing assistant jobs. Differences between genders are minor, and not statistically significant.

Table 1. Positive responses (callbacks), by minority status of the applicant.

	Majority group	Pakistani		Nigerian		All other groups	
	rate	rate	ratio	rate	ratio	rate	ratio
All occupations	24.1	13.9	1.7	13.1	1.8	15.8	1.5
High-skilled occupations	25.8	18.3	1.4	11.7	2.2	20.2	1.3
All other occupations	23.2	11.9	1.9	13.7	1.7	13.6	1.7
All occupations - men	21.8	11.5	1.9	11.1	2.0	15.4	1.4
All occupations - women	26.5	16.6	1.6	15.7	1.7	16.2	1.6

Note: The callback rate refers to the percentage of applications that received a positive response from the employer (such as an invitation to a job interview, an expression of interest or the request to provide additional information on the candidates' availability, skills or previous experience). Callback ratios are calculated as the ratio between the callbacks received by the majority group and the callbacks received by the minority group. High-skilled occupations: software engineering, marketing assistant/sales representative. All other occupations: cook, store assistant, payroll/admin clerk, receptionist.

While table 1 shows row callback rates, the very large gaps in callback rates still remain after controlling for occupation, the generation status of minority applicants (2nd or 1.5 generation) and their religious background (as signalled by the voluntary work reported in the resume) in more detailed analyses reported in Figure 1. To put these findings in perspective, in a meta-analysis summarizing results from several field experiments conducted in Britain, we found that there has been virtually no change over time in the level of discrimination faced by Pakistanis: the studies from the 1970s and from the 21st century show almost identical patterns of discrimination despite being almost forty years apart.

Figure 1. Predicted callback rates of Pakistani and Nigerian applicants, compared to the majority group and all other minorities combined.
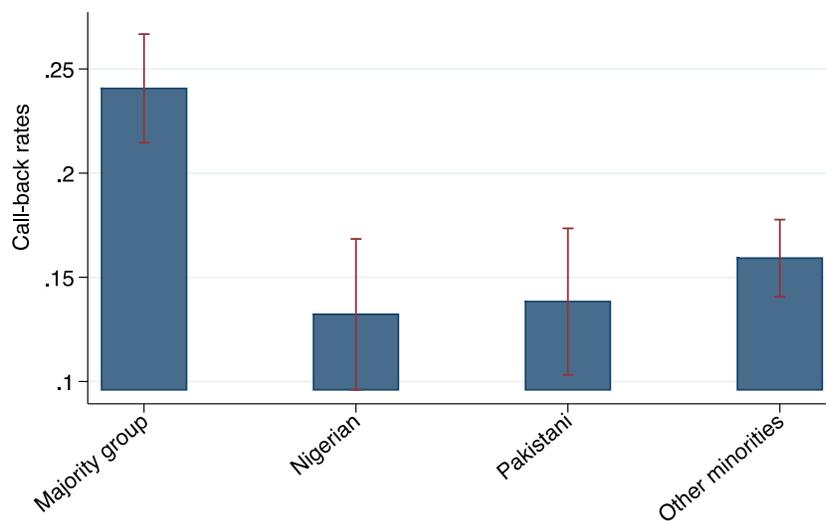
Note: probabilities of receiving a callback, estimated from linear probability models, controlling for religion and generational status of the applicant (2nd vs. 1.5 generation).

With the exception of applicants from Western Europe and the US, all other ethnic minority applicants received significantly fewer callbacks from employers than did members of the majority group. The gap in callback rates was especially pronounced for non-Western minorities (Pakistani, Bangladeshi, Africans, applicants from MENA countries, South American and the Caribbean), exceeding 10 percentage points relative to the majority group. The discrimination encountered by these non-Western groups was of comparable magnitude (table 2), a result that is in line with a recent (2008/9) correspondence test conducted in Britain for the Department of Work and Pensions[4]. All five minority groups tested in that study – the Black Caribbean, African, Indian, Pakistani and Chinese groups – experienced significant discrimination relative to the majority group but did not differ significantly from each other in their rate of discrimination.

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[4] Wood, M., Hales, J., Purdon, S., Sejersen, T. and Hayllar, O. (2009). A test for racial discrimination in recruitment practice in British cities. Department for Work and Pensions Research Report, 607.

A more nuanced analysis reveals interesting differences by gender. Only female applicants from Western Europe and the US receive equal treatment relative to the majority group, while male applicants from the same countries do experience discrimination. Male applicants from India and East Asia (China, Japan, South Korea and Vietnam), commonly referred to as 'model minorities', fare just as well as male applicants from the majority group. Indian and East Asian women, however, encounter strong discrimination relative to women from the majority group. Moreover, differences in call-back rates between Western and Eastern Europeans are significantly more pronounced among females than among males.

Table 2. Positive responses (callbacks), by applicants' gender and region of origin.

Origin of the applicant	Pooled sample		Men		Women	
	rate	ratio	rate	ratio	rate	ratio
Majority group	24.1	-	21.8	-	26.5	-
Western Europe and US	20.2	1.2	15.7	1.4	24.8	1.1
Eastern Europe and Russia	15.6	1.5	17.0	1.3	14.3	1.9
India, China, Japan, South Korea, Vietnam	19.4	1.2	23.3	0.9	15.3	1.7
Pakistan and Bangladesh	13.6	1.8	11.5	1.9	16.1	1.6
South America and Caribbean	12.1	2.0	12.5	1.7	11.8	2.3
MENA (Middle East and North Africa)	12.7	1.9	12.1	1.8	13.3	2.0
Nigeria, Ethiopia, Somalia Uganda	12.3	2.0	11.3	1.9	13.7	1.9

Note: calculations refer to the full sample, including all occupations.

Differences in callback rates between minority groups are less pronounced for high-skilled occupations requiring a university degree, consisting with the argument that employers who hire for specialized positions cannot afford to discriminate. However, it should be noted that this argument only applies to white minorities and 'model minorities' and, to a somewhat lower extent, to Pakistani and Bangladeshi applicants. Qualified applicants from Africa, MENA countries, South America and the Caribbean experience strong discrimination even when applying to high-skilled occupations (as was also shown in table 1).

Is discrimination statistical or taste-based?

Two theories have been proposed in the economics literature to explain why employers may be prone to discriminate. Statistical discrimination theory attributes discrimination to a lack of information during the hiring process, which leads profit-maximizing employers to use ethnic group membership as a signal to infer the productivity of potential employees. Taste-based theory of discrimination, on the other hand, argues that some employers have a distaste for members of (specific) minority groups and would even prefer to incur economic costs rather than hire applicants from the outgroup.

Distinguishing between the two theories in empirical studies has proven difficult. One proposed approach is to use 'enhanced' applications containing additional information on one's qualities, skills and past performance to test whether the gap in callbacks decreases when providing employers with additional information about the applicants. The intuition is that if discrimination is due to a lack of information, then adding information could be a de-biasing strategy encouraging employers to base their hiring decisions on the specific person and not on group characteristics such as ethnicity. As shown in Figure 2, however, in our study adding information to the resume and cover letter did not reduce discrimination. Applicants from Pakistan, Bangladesh, Africa or the MENA countries who stressed their competence and past achievements in the job application still received significantly lower callbacks from employers than white British applicants who did not include information on performance in their application.

These result speak against statistical discrimination theory, although it is possible that employers regard the individual signals of productivity for minority group members as totally uninformative. Overall, our findings show that culturally more distant, non-Western minorities experience severe discrimination, regardless of the occupation considered and the information included in the application. These patterns are consistent with a model of 'lexicographic search' by employers, who simply reed no further when they see a Middle East-sounding or African-sounding name[5].

Figure 2. The role of adding information on job performance, by applicants' origin.
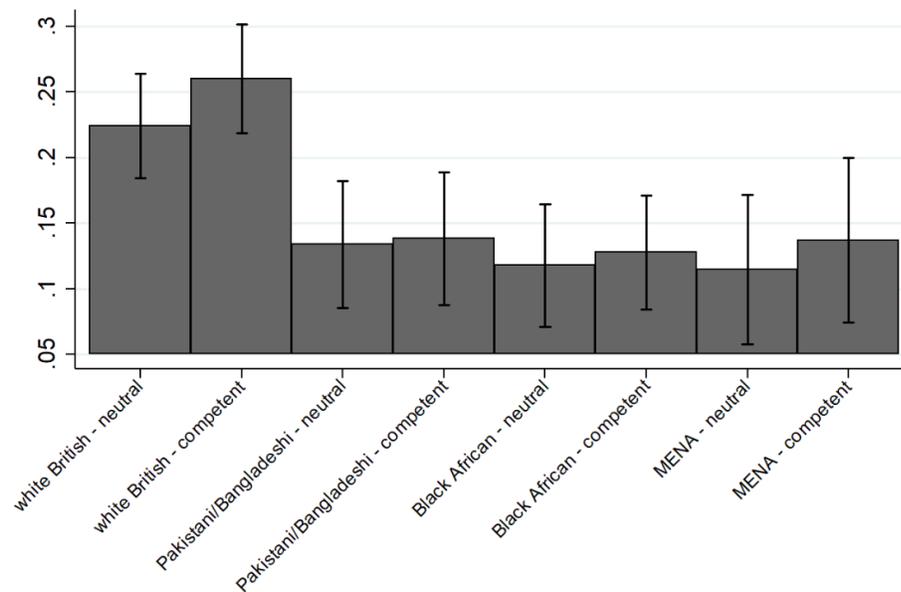
Note: predicted probabilities of receiving a callback, estimated from linear probability models, after controlling for religion, generational status of the applicant (2nd vs. 1.5 generation) and occupation. The bars represent the percentage of positive responses received by applicants that included or did not include information on job performance and past achievements in their application.

[5] Bertrand, M., and S. Mullainathan. 2004. Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *American Economic Review* 94(4): 991–1013.

The finding of shockingly high levels of discrimination towards applicants from countries that have a sizeable Muslim population (Pakistan, Bangladesh, the MENA region) also echoes the strong anti-Muslim attitudes recorded in recent surveys[6]. To examine religious discrimination, we can compare applicants who mentioned in the application that they were working as volunteers in a Muslim community centre with applicants from the same country of origin who were doing voluntary work in a local community centre with no religious affiliation. Their callbacks barely differed. In other words, employers were reluctant to invite *any* applicant originating from Muslim-majority countries, regardless of whether or not they disclosed their religion in the job application.

Discrimination in context: how does Britain fare compared to other European countries?

To contextualize these findings, we can compare the discrimination rates found in Britain with the discrimination rates recorded in the other four European countries that took part in the GEMM study (Germany, the Netherlands, Norway and Spain). These countries differ in terms of labour market institutions, colonial past, size of the immigrant population, anti-discrimination legislation, just to name a few. Overall, the callback ratio in the cross-national sample is 1.3, indicating that minority applicants needed to send about thirty percent more applications than majority applicants to have a similar likelihood of receiving a positive response from employers. When looking at each single country separately, the callback ratios vary from 1.1 in Spain to 1.2 in Germany, 1.3 in the Netherlands, 1.5 in Norway, and 1.6 in Britain. Perhaps surprisingly, in spite of relatively strong laws prohibiting discrimination on ethnic, racial and religious grounds (the MIPEX index ranks Britain among the countries with the most favorable anti-discrimination policies, together with traditional countries of immigration like Canada and the US), the level of discrimination is higher in Britain than in the other four countries. These ratios, however, are inevitably affected by the specific groups that were oversampled in each country. It is important to note that British employers treat minorities of European background relatively fairly. It is non-European, and mostly non-Western/non-white minorities that are very strongly discriminated in the British context.

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[6] Heath, A. F., and L. Richards (Forthcoming). Contested boundaries: consensus and dissensus in European attitudes to immigration. *Journal of Ethnic and Migration Studies*.

Design of the field experiment and other methodological issues

To study discrimination, researchers often rely on field experiments using either in-person (audit studies) or written (correspondence studies) applications from fictitious job seekers that are sent to employers in response to real vacancies in random order. The applications are identical in all respects except for the characteristics, like ethnic background or religion, that allegedly cause discrimination. In the applications, ethnicity is typically signalled by the foreign-sounding names of the applicants, their reported mother tongue, or pictures in settings where this is commonly included. The discrimination rate is then the difference in the probability that majority and minority applicants are called back for an interview or receive a request to provide more information. A key benefit of audit and correspondence tests is the random assignment of the treatment of interest (in this case ethnic background) to job applications that take place in real labour market contexts. For this reason, field experiments are considered the gold standard for discrimination research. Correspondence tests are especially popular: software programs can automate the application procedure, resulting in low cost per application and the avoidance of experimenter effects[7,8].

Between November 2016 and December 2017, we applied to nearly 3200 jobs advertised online on a popular recruitment platform, using resumes and cover letters of fictitious job applicants that randomly varied on a number of characteristics, including their ethnic minority status. We then tracked the responses received from employers and, in line with the standard protocol of field experiments, politely declined any invitation to job interviews or requests to provide additional information saying that we were no longer interested in the job. All applicants had four years of relevant work experience and were qualified for the jobs on offer. The occupations we considered in the field experiment (cook, store assistant, payroll and admin clerk, receptionist, marketing assistant and sale representative, software engineer) vary with regard to required skills, qualifications and level of customer contact.

A crucial issue when designing a correspondence test is how to signal ethnicity in the application. We used foreign-sounding names and referred to the language of the origin country in the language skills section of the resume so that minority applicants always described themselves as bilingual. Applicants from minority groups were either British-born or had arrived in Britain at the age of six, and had obtained all their education and training in Britain. This information was clearly signaled in the resume and stressed in the cover letter and both documents were written without any spelling mistakes.

A second issue has to do with the random assignment of applicants to employers. Traditionally, correspondence studies relied on matched pairs or sets of applicants. In these paired designs, the same employer receives multiple applications in which information on skills, qualifications, work experience is comparable and the only varying characteristic is ethnicity (or the characteristic on which discrimination is tested). More recently, unpaired designs have become more common, one of

[7] Pager, D. (2007). The use of field experiments for studies of employment discrimination: Contributions, critiques, and directions for the future. *The Annals of the American Academy of Political and Social Science* 609(1): 104-133.
[8] Neumark, D. (2018). Experimental Research on Labour Market Discrimination. *Journal of Economic Literature* 56(6): 799-866.

their advantages being the lower risk of detection[9]. Our design is also unpaired: we sent only one application to each single employer. We followed standard practice and estimated linear probability models retaining all observations, an approach which does not require matched pairs[4]. The random allocation of treatments and controls to experimental units still ensures unbiased estimates, provided that the randomization process is done properly.

A third issue to consider is the lack of informed consent from employers. Because of the deception involved – employers spend time screening applications from fictitious candidates that they believe to be genuine – correspondence tests raise a number of ethical issues. Before the start of the fieldwork, the study was scrutinized and granted ethical approval by the Ethics Committee of Nuffield College following current best practice procedures.

A final observation is on how to report findings. We refer to callback ratios throughout the briefing note. Callback ratios are intuitive measures of discrimination: calculated as the ratio between the callbacks received by the majority group and the callbacks received by the minority group under consideration, they represent a measure of relative disadvantage. For example, a callback ratio of 1.5 indicates that minority applicants need to send 50% more applications to receive the same share of callbacks as majority applicants. An additional advantage of callback ratios is that their interpretation does not vary depending on the level of callbacks recorded in the study.

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[9] Vuolo, M., Uggen C., and Lageson, S. (2016). Statistical power in experimental audit studies: Cautions and calculations for matched tests with nominal outcomes. *Sociological Methods & Research*, 45(2): 260-303.