



## **Discrimination in hiring people of supposedly North African origin: What lessons from a large-scale correspondence test?**

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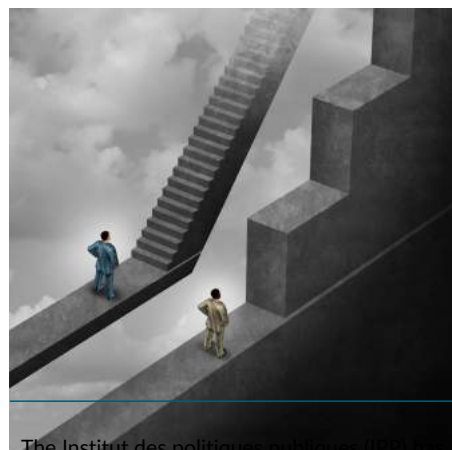
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# Discrimination in hiring people of supposedly North African origin: What lessons from a large-scale correspondence test?

Numerous studies show that French people from North African immigrant backgrounds face significant difficulties in the job market, starting from the first stage of recruitment. The results of a recent large-scale correspondence test confirm this. Discrimination in hiring based on supposed origin remains high and a major feature of the French labor market. On average, at a comparable level of quality, applicants whose identity suggests a North African origin are 31.5% less likely to be contacted by recruiters than those with a first and last name of French origin. While discrimination based on supposed origin is strong and persistent, it becomes weaker, without disappearing, among the most qualified employees. These results do not vary significantly between women and men.

- 9,600 applications were sent in response to 2,400 published job offers for 11 different job categories. The gender and identity (first and last name) of the applicants were randomly assigned in order to measure discrimination in hiring based on gender and supposed origin.
- To receive the same number of positive responses, a person whose first and last names sound North African has to send an average of 1.5 times more applications than a person with the same profile but whose first and last names sound French.
- These differences are large regardless of the characteristics of the jobs and the candidates.
- Discrimination is about twice as high in low-skilled jobs compared to skilled jobs.
- Discrimination according to supposed origin concerns both male and female applications and varies little according to gender, regardless of the family situation indicated on the application.



## Introduction

Numerous studies document the existence of discrimination in hiring on the basis of origin in various spheres of the French labor market. In recent research on 110 of the 250 largest companies in terms of market capitalization, Challe et al. (2020) conclude that discrimination against applicants from North African immigrant backgrounds leads to a 20% gap in access to a job interview. The work of Foroni, Ruault, and Valat (2016), which focuses on 40 companies with more than 1,000 employees, leads to a similar measure of the extent of discrimination against people with a North African-sounding identity, and concludes that 12 of the 40 tested companies discriminate in their recruitment among these populations.

Such discrimination contributes to the existence of strong inequalities in the labor market that can be economically costly (Martin and Naves, 2015) and push people from minorities back into their assigned social categories (Belgacem, Talpin, and Balazard, 2021).

In this context, private initiatives and public policies have been introduced to promote diversity in companies, following the example of the January 27, 2017 "Equality and Citizenship" law which requires companies with more than 300 employees to have training in discrimination-free recruitment. These developments are likely to have reduced discrimination in general, and perhaps more so for some professions than for others.

The study conducted by ISM Corum<sup>1</sup> and the Institute for Public Policy (IPP) under the aegis of Dares<sup>2</sup> makes it possible to measure discrimination in hiring people of supposedly North African origin<sup>3</sup> for a diverse set of occupations and to highlight possible differences according to various labor market segments and candidate profiles. It is based on a large number of applications sent in response to job offers. It is intended to be representative in terms of occupations and sectors, and covers the whole of mainland France. The diversity of the jobs chosen makes it possible to verify whether there is a difference in treatment according to supposed origin, depending on the level of qualification, the degree of feminization of the workforce, or the difficulties of recruitment.

## Measuring discrimination with a correspondence test

To isolate the role played by hiring discrimination in inequalities by origin in the labor market, it is necessary to neutralize the effect of the quality of applications on the probability of attracting the interest of an employer. The correspondence testing method used here consists of creating fictitious applications and sending them in response to real job offers (Box 1). The success of the applications is measured by the callback rate, i.e., the proportion of applications in which employers show interest.

One way in which applications are distinguished is by first and last names that suggest a sex and ethnicity. The underlying hypothesis is that employers form a judgment about the population group to which the applicant belongs based on the (North African or French sounding) identity on the application. To distinguish the specific effect of identity, the method consists of creating a large number of CVs, the contents of which are largely fixed but sufficiently different from one another not to arouse suspicion. These differences may be linked to a different intrinsic quality of the application. To eliminate the effect, the association between identities (first and last names of applicants) and CVs is systematically rotated from one job offer to another.

This study was conducted between December 2019 and April 2021 (with a break between March and June 2020; see Box 2). It covers 11 job categories, covers the whole of metropolitan France, and includes three age groups. The presence of children, as well as marital status and the existence of periods of inactivity, are explicitly taken into account by including information on the personal situation of applicants in some applications. First names also convey perceptions about applicants' gender and social group, which are likely to contribute to the success of different profiles (Gaddis, 2017). For each population group studied, we therefore use a broad set of first names. A set of four applications (one female and one male for each assumed origin — French and North African) are sent in response to 2,400 job offers (Box 1).

## Widespread and persistent discrimination against applicants of North African origin

Of the 2,400 job offers tested, 1,516 were treated equally by recruiters: all four applicants received no response, or all four generated interest (Table 1). Thus, the differences in treatment are concentrated in 37% of the offers, and North African-sounding applicants are at a dis-

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<sup>2</sup>Direction de l'Animation de la recherche, des Études et des Statistiques du Ministère du travail.

<sup>3</sup>The main findings on gender discrimination are presented in *Dares Analyses* n° 26 and *IPP Policy Brief* n° 67 as well as *Dares Analyses* n°57.

## Box 1 : Construction of applications

The results presented here are based on data produced as part of a study on gender discrimination, the main findings of which are described in *Dares Analyses* n° 26 and *IPP Policy Brief* n° 67 as well as *Dares Analyses* n° 57. In this correspondence test, the occupations were chosen in order to measure the extent of discrimination in hiring on the basis of various dimensions:

- The degree of feminization of the occupation (low, mixed, predominantly female), which is identified from the annual declaration of social data (DADS, "postes" files, validity 2015) for each profession;
- The level of qualification (low skilled, managers without a supervisory role, managers with a supervisory role), which is measured using the nomenclature of occupational categories;
- The level of recruitment tension (low or high), which is defined using the recruitment difficulties reported in the 2019 Besoins en main-d'œuvre (BMO) survey.

The combination of these three factors does not systematically allow for the identification of occupations for which recruitment volumes are sufficient for the study. Ultimately, 11 occupational categories were tested, the details of which are described in Figure 1.

The first and last names on the applications suggest the gender and origin of the candidates. The applications are constructed in such a way as to study the effect of different individual characteristics. Thus, each application is characterized by identity (gender, first name, last name, social class), profile (experience, education), age, and a signal (concerning marital status, children, and inactivity).

- The age range is defined by the number of years of work experience, and suggests the presence (or not) of young children. Three age groups are used: 4 to 6 years of work experience ("young", aged 23 to 30); 14 to 16 years of work experience ("middle age", aged 33 to 40); and 29 to 31 years of work experience ("senior", aged 48 to 55). To reflect the reality of the labor market, only two age groups are tested per occupation: "young" and "intermediate" for low-skilled occupations and managers without supervisory functions; "intermediate" and "senior" for managerial occupations with supervisory functions. In response to a job offer for a given occupation, the four applications sent correspond to the same age group. In response to the next job offer, the other of the two possible age groups is tested. This process preserves the statistical power of the tests.
- In the "family situation" section, CVs may include the marital status (couple/single) as well as the presence (or not) of two children in the household. In the "professional experience" section, they may include a period of inactivity of two years prior to the most recent professional experience. These signals are entered in the CVs in such a way that the four CVs sent in response to the same job offer include characteristics that cross either period of inactivity, marital status and presence of children, or marital status and presence of children, or no signal, to constitute a control group.
- The first names on the applications were selected from the "Trajectories and Origins" survey, conducted jointly by INED and INSEE. In addition to gender and origin, they suggest membership in a (disadvantaged or advantaged) social class according to the father's socioeconomic category observed in the data, at three distinct ages (25, 35 and 50). In total, for a given ethnic origin and gender, six first names are retained (3 age groups × 2 social classes). Since we respond with a fixed age range to a given job offer, we randomly select with a probability of 1 in 2 the social class (lower, upper) that will appear on each application.
- The surnames were chosen to explicitly evoke the two origins tested and for their pronounciability and legibility, including their association with the first name. No mention of nationality was made in the fictitious applications. Because of the specific administrative rules governing the recruitment of candidates of foreign nationality, it is in their interest to mention their nationality in their application file. This legal context explains why the absence of any mention of nationality is generally interpreted as a credible sign of French nationality.

For each candidate, a record is kept of all successive contacts from employers. Callback rates are calculated by taking into account the first informative response (which corresponds to a non-neutral, positive or negative contact) in the contact sequence. For more details on the protocol and its implementation, see Breda et al. (forthcoming).

advantage on average compared to French-sounding applicants. When recruiters show an interest in 3 out of 4 CVs sent, it is most often to the detriment of a candidate whose first and last names sound North African (in 6% of cases, compared to 3% of job offers for which only a candidate whose identity suggests French origin was not called back). Similarly, when two out of four applications are called back, it is the French-sounding ones that are favored over the two North African-sounding ones (6% and 1% respectively). Finally, when only one candidate was contacted (15% of cases), it was most often an application suggesting a French identity that caught the recruiter's interest. This was the case in 11% of the tests, whereas only 4% of recruiters contacted only one candidate whose identity suggested a North African origin.

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"Applications with a North African-sounding identity are rejected much more frequently (20.5%) than those with a French-sounding identity."

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## Box 2: Implementation of the correspondence test

To build the applications, CVs and cover letters were written by people with in-depth knowledge of each of the professions tested, so as to propose four applications for each job offer that were equivalent in content and likely to interest the recruiters, without arousing their suspicions. Two quartets of applications were drafted for each job according to the two age groups to be tested (Box 1).

Computer scripts made it possible to list the job offers published each day on the Indeed, Pôle emploi and Apec websites for the 11 occupational categories targeted, taking care to exclude those whose recruitment was managed by employment intermediaries, in order to retain only those offers that made it possible to test employers directly. This rule does not prevent recruitment agencies and temporary employment agencies from being tested as employers, especially since the job of recruitment officer is one of those targeted by the study. These offers were then examined in order of publication to ensure that they could be tested. Jobs that required skills that were not present in the test applications, or that indicated applying by phone or direct referral, or that were for an employer that had already been tested, or that appeared in the previous experience of one of the CVs to be sent, were discarded at this stage.

Offers that were not rejected for one of these reasons were all tested, regardless of the location of the position. The study is therefore homogeneous at the national level, with tests carried out in all French departments (except overseas) and in more than 1,000 different municipalities. The employers tested are also very diverse in terms of size, sector of activity, and type of organization (more or less centralized) of their recruitment.

The applications were finalized using a geolocation tool that randomly assigned addresses within a fixed perimeter around the job location. The order in which applications were sent was systematically rotated. The applications were sent by email or by filling out an application form, according to the method indicated in the offer, and were sent within 24 hours for employee positions and 48 hours for executive positions. The two high-tension jobs (kitchen assistant and developer) are an exception to this rule: the sending periods were extended to 48 hours and 72 hours respectively, in order to limit the risks of detection that sending applications too quickly would have on the study.

In total, 2,400 job offers were tested, representing 9,600 applications. Recruiters' responses were collected using several dozen different cell phone lines and email addresses, and each test was fully traceable (dates and times applications were sent, dates and times responses were received, response method, gender and role of respondents). More than 8,000 responses were received, ranging from simple acknowledgments of receipt to interview proposals. When employers could be reached by email, their offers were declined so as not to interfere with the recruitment process – citing another job, a change in employment status, or a family problem.

The study took place during a particular period, since it started before the health crisis, in December 2019. It was interrupted at the time of the first lockdown, between March and June 2020, and ended in April 2021, in a context still marked by the crisis and its considerable impact on the labor market. As shown in the table below, the health situation seems to have caused a decline in callback rates. This decrease is nevertheless homogeneous, with the differences according to origin remaining stable (both among male and female applicants) throughout the period. For this reason, we do not distinguish between the different periods of analysis in the remainder of this policy brief.

Sending period	December 2019 – March 2020 (N = 2, 952)			July 2020 – April 2021 (N = 6, 648)		
	Callback	Rejection	No response	Callback	Rejection	No response
French	38.9	6.8	54.3	30.8	21.6	47.6
N. African	26.2	8.6	65.2	21.3	26.0	52.7
Women						
	(N = 1, 476)			(N = 3, 324)		
	Callback	Rejection	No response	Callback	Rejection	No response
French	40.1	6.2	53.7	30.4	22.6	47.0
N. African	26.7	8.0	65.3	22.6	26.1	51.4
Men						
	(N = 1, 476)			(N = 3, 324)		
	Callback	Rejection	No response	Callback	Rejection	No response
French	37.7	7.5	54.9	31.2	20.6	48.1
N. African	25.6	9.2	65.2	20.0	25.9	54.1

Coverage: 9,600 applications (i.e. 2,400 job offers × 4 applications (woman or man with French or North African identity)).

Note: A callback corresponds to a clear indication of interest on the part of the recruiter; a refusal corresponds to a negative response received for the application; no response means that the application remained unanswered by the recruiter.

Interpretation: Between December 2019 and March 2020, out of all applications, recruiters showed interest in 38.9% of applications whose identity suggested French origin. This proportion rises to 40.1% among female applicants and falls to 37.7% among male applicants.

Source: Dares/IPP/ISM Corum correspondence test.



Table 1: Distribution of responses by job offer

4 or 0 callbacks	3 callbacks		2 callbacks		1 callback	
	2 NA/1 F	2 F/1 NA	1 NA/1 F	2 F	2 NA	F NA
1516	69	157	64	143	17	257
63 %	3 %	7 %	3 %	6 %	1 %	11 %

Coverage: 9,600 applications (i.e., 2,400 job offers × 4 applications (woman or man with French — F — or North African — NA — identity)).

Note: The 2,400 job offers are classified according to the recruiter's response to the four applications (callback or not). The first column corresponds to cases where all applications received the same treatment from the recruiter. The following columns detail the number of invitations received for each offer, according to the supposed origin of the candidates (regardless of the gender on the application).

Interpretation: For 63% of the offers, all the applications received the same response from the recruiters (positive, negative or no response). In 3% of the cases, the only application that did not receive an expression of interest concerned an application with a French-sounding identity (2nd column), and in 7% of the cases this situation concerned an application with a North African-sounding identity (3rd column).

Source: Dares/IPP/ISM Corum correspondence test.

Table 2: Average response rates

	Callback	Rejection	No response
French	33.3	17.1	49.6
N. African	22.8	20.6	56.6
Gross difference	-31.5%***	20.5%***	14.1%***
Ratio	1.5	0.8	0.9

Coverage: 9,600 applications (i.e., 2,400 job offers × 4 applications (woman or man with French or North African identity)).

Note: A callback corresponds to a clear interest on the part of the recruiter, a rejection corresponds to a negative response to the application; no response means that the application remained unanswered by the recruiter. The significance levels are equal to 1% (\*\*\*), 5% (\*\*), and 10% (\*), respectively.

Interpretation: Among all applications, recruiters showed interest in 22.8% of applications with a North African-sounding first and last name; the callback rate is thus 31.5% ((22.8 — 33.3)/33.3 = -31.5%) lower than for applications with a French-sounding first and last name, for which the callback rate is 33.3%. This difference is statistically significant at the 1% level. Thus, a candidate with a North African-sounding first and last name must send 1.5 times more CVs than a candidate with a French-sounding first and last name to obtain the same number of callbacks from recruiters (33.3/22.8 = 1.5).

Source: Dares/IPP/ISM Corum correspondence test.

The measurement of callback rates according to the profiles of the applications shows the existence of widespread discrimination against applications with a North African-sounding identity. These applications receive callbacks 31.5% less often than identical French-sounding applications (33.3% vs. 22.8%, Table 2). A person with a North African-sounding first and last name must send an average of 1.5 times more applications than a person with the same profile and a French-sounding first and last name to receive the same number of positive responses. This low callback rate for applications of supposedly North African origin is due to the fact that employers reject them 20.5% more frequently than those of supposedly French origin, and ignore them 14.1% more frequently.

However, the intensity of discrimination, measured by the difference in callback rates, varies greatly between the different professions (Figure 1). With the exception of store managers, the difference in average callback rates based on origin is very large and systematically to the disadvantage of North African-sounding applicants. These differences are particularly significant for sales employees, kitchen assistants and administrative employees.

Supposed origin is a crucial factor of inequality in ac-

cess to employment in the French labor market. Although other sources of inequality are sometimes studied (in particular gender, Dares, 2021a; Dares, 2021b), their weight is out of all proportion to that of supposed origin. Discrimination in hiring against applicants with a North African-sounding identity remains extremely significant. The order of magnitude of the callback ratio measured here (1.5) is comparable to the results obtained using the same method by previous studies on more specific segments of the labor market. It is at the lower end of the range typically observed. One of the first studies, conducted in 2006 by Cediey and Foroni, shows that applicants with a North African-sounding identity are two times less likely to be contacted. This ratio varies quite significantly from one study to the next: It is 4 in the 2006 study by Duguet et al. and the 2011 study by Berson, 1.8 for Pierné in 2011, 1.5 for Edo, Jacquemet, and Yannelis in 2012, and 1.3 for Foroni, Ruault, and Valat in 2016.<sup>4</sup> These studies show that the phenomenon is persistent, and cuts across the entire labor market. This research focuses, however, on specific segments of the labor market and does not allow conclusions to be drawn about the overall evolution of the phenomenon over time.

## Reduced disparities as the level of qualification increases

The differences in callback rates by profession are high (and statistically significant) in all the labor market segments covered by the study (Box 1). The number of applications required for a candidate of supposedly North African origin to arouse the same interest as candidates of supposedly French origin varies, for example, between 1.4 and 1.8<sup>5</sup> depending on the degree of feminization of the occupation (Table 3).

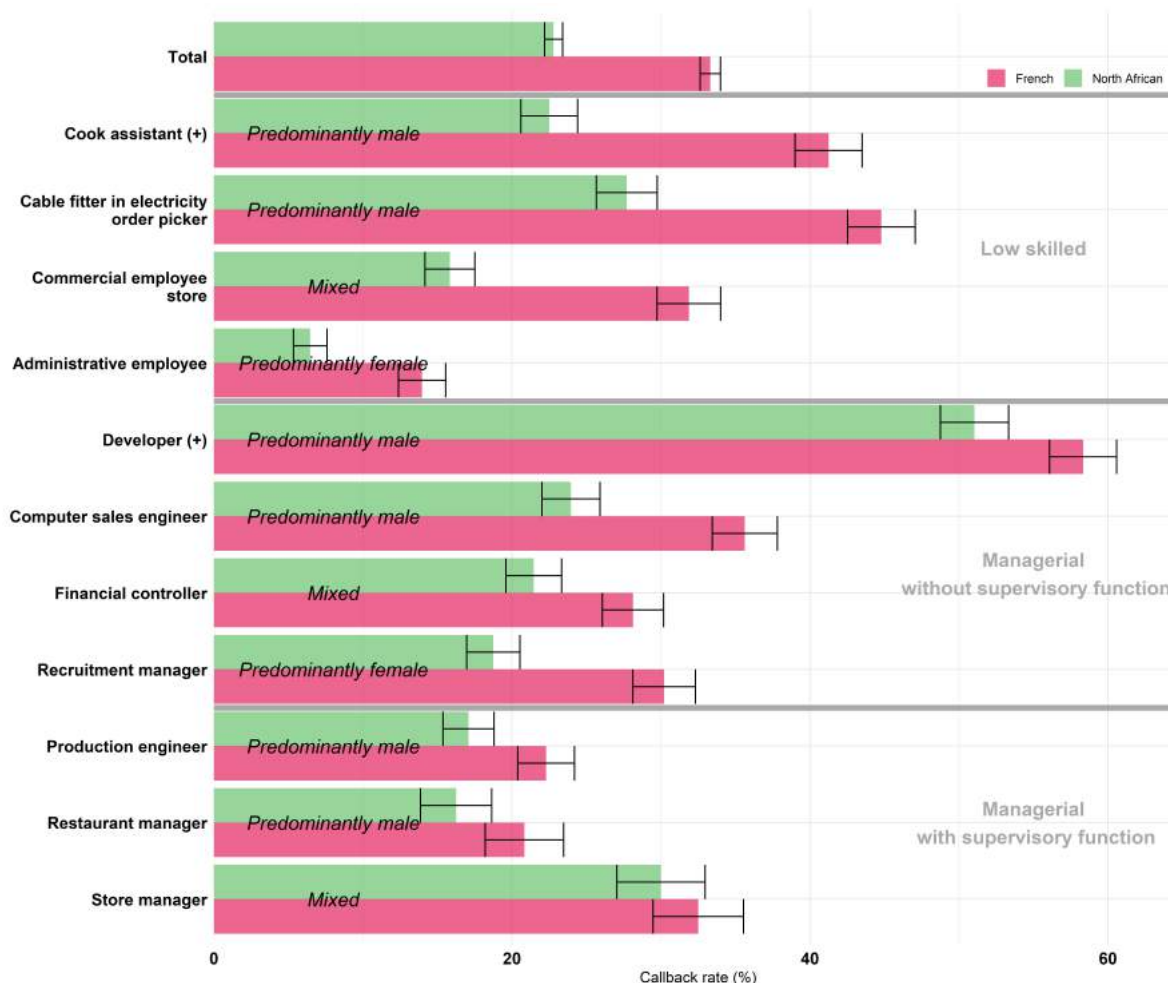
"The callback rate gap based on origin is 26% in occupations experiencing recruitment difficulties, compared to 34% in other occupations."

Discrimination is significantly lower in occupations experiencing recruitment difficulties. The difference in callback rates is 26% in these "high tension" occupations and 34% in other occupations. However, the callback rate gap

<sup>4</sup>This comparison is limited to studies that measure origin discrimination by comparing North African-sounding identities to French-sounding identities. Baert (2017) offers a broader review of international studies that measure origin discrimination.

<sup>5</sup>This ratio is obtained by dividing the callback rate of applicants whose identity suggests French origin by the rate of applicants whose identity suggests North African origin. Thus, for mixed occupations, this ratio is 1.4 (30.5/20.9).

Figure 1: Average callback rate by occupation



Coverage: 9,600 applications (i.e. 2,400 job offers × 4 applications (woman or man with French or North African identity)).

Note: For all applications (first two rows) and each job category (following rows), the callback rates obtained by applicants whose identity is either French or North African sounding are presented, as well as their 95% confidence intervals. The occupations are classified according to their level of qualification and their degree of feminization. Occupations for which recruitment is under pressure are indicated by a (+).

Interpretation: The administrative employee occupation is feminized, low-skilled and under low tension. French-sounding applications to advertisements associated with this occupation are 53.7% more successful than applications with North African-sounding names. This difference is significant at the 95% confidence level.

Source: Dares/IPP/ISM Corum correspondence test.

related to origin does not differ significantly depending on whether the occupation is under high or low tension when the effect of the other characteristics of the occupations and the applicants is taken into account. Thus, the relative difference in callback rates between applicants of supposedly North African origin and those of supposedly French origin is 16.2 percentage points higher in high-tension occupations than in low-tension occupations, but this difference is not significant. Similarly, there are no significant relative differences in callback rates according to the level of feminization of the job, age or the suggested social origin of the applicants. On the other hand, discrimination linked to origin varies according to the level of qualification of the job. All other things being equal, applicants of supposedly North African origin are relatively less discriminated against in skilled occupations (management positions, whether or not they have supervisory roles) than in low-skilled occupations.

"Discrimination tends to be lower in skilled occupations but does not disappear completely."

## Disparities that do not vary significantly between women and men

One hypothesis often put forward is that discrimination linked to origin varies according to gender: for two distinct origins, the gaps measured between women and men would diverge. Instead of being cumulative, the factors of discrimination are said to combine in a complex way (Browne and Misra, 2003).

Table 3: Employer callback rates by trade and applicant characteristics

	N	Callback rate (%)	Differences (%)	
		Fr. N. African	Gross Relative	
<b>Level of feminization of the occupation</b>				
Masculinized	5280	38.7	27.3	-29.5*** Ref.
Mixed	2400	30.5	20.9	-31.5*** -10.8
Feminized	1920	22.1	12.6	-43.0*** 0.7
<b>Level of qualification of the occupation</b>				
Low-skilled occupations	3840	33.0	18.1	-45.2*** Ref.
Managers without supervisory role	3840	38.1	28.8	-24.4*** -44.4***
Managers with supervisory role	1920	24.5	20.1	-18.0** -60.3***
<b>Degree of tension in the occupation</b>				
High	1920	49.8	36.8	-26.1*** Ref.
Low	7680	29.2	19.3	-33.9*** 16.2
<b>Age groups</b>				
23 to 30 years	3840	39.0	26.0	-33.3*** Ref.
33 to 40 years	4800	32.6	22.2	-31.9*** -2.1
48 to 55 years	960	14.0	12.7	-9.3 -33.7
<b>Social origin suggested by first name</b>				
Disadvantaged	4771	34.0	22.3	-34.4*** Ref.
Advantaged	4829	32.6	23.3	-28.5*** -8.3

Coverage: 9,600 applications (i.e. 2,400 job offers × 4 applications (woman or man with French — Fr. — or North African — N. African — identity)).

Note: The gross difference corresponds to the difference between the callback rates of North African and French-sounding applications, divided by the callback rate observed among French-sounding applications. The level of significance indicated for this column is that of the coefficient of the North African indicator in the callback rate regression (0 or 1), without a control variable. The relative difference provides information on the discrimination linked to origin between the reference modality (Ref.) and the other modalities of each category of occupations and candidates taken into account in this correspondence test. It is derived from a logit that estimates the callback as a function of a North African indicator, of fixed effects on the characteristics of the offers, and of interactions between a North African indicator and the categories of occupations and candidates (feminization, qualification, tension, age and social origin). The relative gap is deduced by dividing the estimated coefficient of each interaction — for example, between the North African indicator and the level of feminization of the occupation — by the estimated coefficient associated with the North African indicator. The significance levels are equal to 1% (\*\*\*), 5% (\*\*), and 10% (\*), respectively.

Interpretation: In response to offers for mixed occupations, the callback rate is 30.5% among the 1,200 French-sounding applications and 20.9% among the 1,200 North African-sounding applications, i.e., a gross difference of (20.9 — 30.5)/30.5 = -31.51 %. Discrimination is 10.8% lower in mixed occupations than in male occupations, but this difference is not statistically significant.

Source: Dares/IPP/ISM Corum correspondence test.

Table 4: Variation of the gender gap according to the socio-demographic information included in the applications

In %	Callback rate		Gross differences		Interaction
	Average	Fr. N. African			Woman* N. African
<b>Applications:</b>					
no signal	29.1	34.2	23.9	-30.1***	1
signal	27.3	32.7	22.0	-32.7***	2.4
<b>Of which:</b>					
single	28.4	33.7	23.0	-31.8***	-2.7
single, 2 children	28.1	35.6	20.6	-42.1***	-0.6
in a couple	27.7	34.3	21.4	-37.6***	9.7
in a couple, 2 children	27.6	33.0	22.3	-32.4***	0
inactive	26.5	29.8	23.4	-21.5**	1.4
inactive, in a couple, 2 children	25.3	29.7	20.8	-30.0***	9.3

Coverage: 9,600 applications (i.e. 2,400 job offers × 4 applications (woman or man with French — Fr. — or North African — N. African — identity)).

Note: The gross difference is the difference between the callback rates of North African and French-sounding applications, divided by the callback rate of French-sounding applications. The last column shows the effect of origin by gender for different samples of applications (with and without a signal on family situation and previous activity — see Box 1). It is calculated from a regression on different groups of applications: those with no additional signal, those that include a signal (whatever it is), then for each of the signals taken separately. Controlling for job characteristics, we estimate the callback rate for each group of applications as a function of the supposed origin, the gender of the applicant and the interaction between gender and supposed origin. This last coefficient is reported in the last column: it is never significant. The significance levels are equal to 1% (\*\*\*), 5% (\*\*), and 10% (\*), respectively.

Interpretation: The callback rate among applications without an additional signal for French-sounding applications is 34.2% and 23.9% for North African-sounding applications, leading to a gross difference of 30.1%, statistically significant at 1%. For applications without an additional signal, the absolute difference in callback rate between supposedly North African women and supposedly French women (which is negative) is one percentage point smaller than the difference (also negative) between supposedly North African men and supposedly French men (about 30%).

Source: Dares/IPP/ISM Corum correspondence test.

## Conclusion

This study, which covers a wide range of occupations, confirms that discrimination in hiring against people with a North African-sounding identity is very significant in France, and that it can be found systematically in all segments of the labor market explored. Discrimination against people with a North African-sounding first and last name is consistent between women and men, and it does not result from the combined effect of gender and origin. While this study unequivocally confirms the existence of strong discrimination against applicants whose identity suggests a North African origin, it does not allow us to directly distinguish the underlying mechanisms, nor to conclude on how to remedy them. It would be useful to further explore the heterogeneity of the differences between groups (according to the level of qualification, or according to the tension in the labor market concerned) in order to try to unravel the sources of the discriminatory phenomenon.

Discrimination linked to origin is strong, and of comparable magnitude, for all the family and employment situations taken into consideration (Table 4). The callback rates for applications supposed to be North African are systematically lower than those for applications supposed to be French, both among applications that do not provide any information on the family situation of the applicants and among those that explicitly specify it. The gross difference is high and varies little on average: from -30.1% for applications without a signal to -32.7% for applications with a signal.

Discrimination according to origin seems to vary very little according to the gender indicated on the application (last column of Table 4). The difference in the callback rate between female and male applications is small and insignificant, regardless of the applicants' family status. For example, for applications without an additional signal, the difference in callback rates between supposedly North African women and supposedly French women differs by only one percentage point from the difference in callback rates between supposedly North African men and supposedly French men, which is not significant. In this study, gender and origin discrimination do not amplify each other; these two factors of discrimination influence recruiters' decisions independently.



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## See also

Dares, IPP and ISM Corum (2021), Gender discrimination in hiring: Lessons from a large-scale correspondence test, *Dares Analyses* n° 26 and *IPP Policy Brief* n° 67, May.

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