Statistical and Taste-Based Discrimination in Labor Market:

An Analysis of European Countries to Identify Optimal Policy Interventions.

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Abstract

This study examines statistical and taste-based discrimination in European labor markets and identifies effective policy interventions. Statistical discrimination uses stereotypical assumptions to predict individual productivity based on available information when complete data is unavailable. Taste-based discrimination arises from personal biases, leading to employer, employee, and customer discrimination. The effectiveness of anti-discrimination policies hinges on the nature of discrimination, whether it is statistical or taste-based. Strategies designed to mitigate statistical discrimination often revolve around reducing perceived productivity disparities between different groups. In contrast, taste-based discrimination requires a different approach, including the establishment of legal regulations, promoting equal opportunities, and implementing diversity training programs to challenge and mitigate biases in the workplace. To evaluate the depth and variations of discrimination, a discrimination index is applied to data from a harmonized field experiment across five European countries, compared with the Italian labor market. The findings underscore the substantial impact of taste-based discrimination, which frequently accounts for a significant portion of overall discrimination, sometimes reaching up to 90%. The study also assesses affirmative action measures such as quotas and hiring subsidies and their potential impact on mitigating discrimination. Prioritizing subsidies over quotas, basing subsidy levels on evidence of hiring discrimination, and involving specialized employment intermediaries can effectively address potential resentment and promote equitable hiring practices. This research offers valuable insights into the issue of discrimination in labor markets and proposes practical policy interventions to address both statistical and taste-based discrimination, thereby contributing to the creation of more inclusive and equitable labor markets.

JEL codes: C93; J24; J71, J15, J71.

1. Introduction

Economic theory categorized discrimination into two main types: statistical and taste-based (for a comprehensive review of this literature, see Lippens et al., 2022). On the one hand, statistical discrimination relies on using available information, which may involve (stereotypical) assumptions (Altonji & Blank, 1999; Arrow, 1998), about productivity-related group characteristics to make predictions about an individual's productivity when complete information is not available (Aigner & Cain, 1977; Arrow, 1973; Phelps, 1972). In this context, statistical discrimination consists in the practice of attributing group characteristics relies on data that, on average, are accurate. Consequently, recruiters may not always hire the most qualified applicants. However, such discrimination is sometimes perceived as an acceptable trade-off between gathering more information about applicants and selecting the most productive employees (Bursell, 2007). This

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approach is considered efficient in cases of imperfect information, particularly when obtaining the necessary details about an individual's productivity would be prohibitively costly (Arrow, 1973).

On the other hand, taste-based (from now on TB) explanation involves choosing for one group over another based on personal preferences rather than any economic rationale, and it is considered inefficient in terms of overall social welfare in any case (Becker, 1971). This difference in treatment will reflect three distinct yet closely related forms. First, employer discrimination, where employers have distaste for hiring minorities; second, employee discrimination, where employees have negative perceptions about working with minorities; and three, customer discrimination, where customers have negative perceptions about interacting with minority employees. These factors may lead employers to discriminate against minorities even if they personally don't have any aversion to hiring them (e.g. Bodvarsson & Partridge, 2001; Combes et al., 2016; Laouénan, 2017). TB discrimination is a prevalent cognitive bias, leading people to show hostility towards individuals from out-groups, even when there is no real threat. On the other hand, statistical discrimination, thought to be more rational, is also influenced by cognitive biases. The stereotypes upon which statistical discrimination is based may not always reflect actual differences between groups (Bordalo et al., 2016). Stereotypes often exaggerate perceived differences, making them particularly inaccurate when groups are similar. Moreover, stereotypes are context-dependent, as the evaluation of a specific target group depends on the comparison with other groups.

When addressing the issue of discrimination, several anti-discrimination policies can be employed. The effectiveness of these policy interventions is closely linked to the source of discrimination, whether it is TB or statistical. Strategies to mitigate statistical discrimination have traditionally focused on addressing its root cause, which involves reducing the perceived productivity differential between different groups. Strategies to address TBdiscrimination entail two main theoretical approaches: (i) enacting inclusive laws which refers to the process of establishing legal regulations and frameworks aimed at promoting equal opportunities and preventing discrimination in the workplace, and (ii) providing "diversity training" which involves educational programs or workshops designed to raise awareness, promote understanding, and challenge biases related to diversity, inclusion, and discrimination in the workplace (Valfort, 2018).

Discrimination in the labor market is an issue that needs to be addressed in two separate aspects. First, to guarantee protection by adopting the legal framework and establishing mechanisms that guarantee the protection of victims of discriminatory behavior through a legal process (administrative or judicial)[3]. Secondly, it involves the implementation of appropriate policies to prevent unfair treatment in labor relations. This necessitates, primarily, a thorough understanding of the discrimination levels in employment relationships through studies, surveys, and monitoring.

The traditional ways of conducting surveys or studies present some problems, such as surveys of potential victims of unequal treatment may result in both over- and under-reported levels of discrimination, surveying employers may conceal the discriminatory practices actually taking place, and statistical analyses cannot rule out the possibility that omitted variables are biasing the effect attributed to ethnic background (Midtbøen, 2016). Consequently, field experiments are used by different actors in the field of discrimination, such as equality bodies, NGOs (Non-Governmental Organization), and researchers.

[3] More than 20 years ago the European Union has adopted two crucial Directives in the field of anti-discrimination: the Racial Equality Directive (2000/43/EC) and the Employment Equality Directive (2000/78/EC). Member States were required to amend their legislation to comply with these directives' requirements (Chopin & Germaine 2023).

In both of these aspects, "field experiments" are assuming an increasingly prominent role as a methodology that provides a more direct approach compared to "the indirect measures of discrimination typical of quantitative studies" or the "regression approach to measuring discrimination" (Midtbøen, 2016; Bertrand & Duflo, 2017).

While field experiments have, on the whole, been effective in illustrating the presence of discrimination (Baldassarri & Abascal, 2017; King, Hebl, Botsford Morgan, & Ahmad, 2013), they have faced challenges in directly correlating discrimination patterns with a specific theoretical framework and, consequently, determining the optimal policy intervention to effectively mitigate it. Our aim is to identify the most effective practices for mitigating ethnicity-based discrimination and to outline strategies for its coordinated policy implementation To address this gap, we will apply an index specifically designed to break down discrimination in the labor market into its statistical and TB components. We will apply this index to a dataset created through a harmonized field experiment analyzing five European countries. Following that, we will compare this dataset with a similar field experiment conducted in the Italian labor market to illustrate the depth of the impact of TB discrimination on overall discrimination and how it varies across different countries.
The article is structured as follows: in the second section, we will conduct a comprehensive review of the existing literature on statistical and TB discrimination, on main field experiments on the topic and the diverse legislative approaches implemented in various countries, in the third section we will present data and methods, section 4 illustrates main results and in the last section main conclusions are presented.

2. Theoretical framework

Statistical and TBTB discirimination

The two main models of discrimination offer drastically different answers for the reason underlying discrimination and, specifically, for its social consequences. While TB discrimination is clearly inefficient (considering how it restricts talent allocation), statistical discrimination is theoretically efficient, under certain conditions, and, therefore, more easily defensible ethically under the utilitarian argument (Bertrand & Duflo, 2017).

To effectively address discriminatory behavior, it is essential to identify the theoretical mechanism that best explains discrimination, as different mechanisms require different countermeasures (Neumark, 2018). One effective approach to combat TB discrimination is to increase penalties for employers who engage in discriminatory practices, such as imposing fines on discriminatory employers (Neumark, 2018). Hedegaard and Tyran (2018) demonstrated that introducing financial penalties for discrimination against ethnic minorities led to a reduction in such discriminatory behavior.

On the other hand, to address statistical discrimination, interventions to improve the quantity and reliability of information about job applicants or employees' productivity-related characteristics are required (Neumark, 2018). Encouraging the submission of reference letters, academic transcripts, certificates, or test scores by applicants can provide employers with more and higher-quality information, reducing their reliance on average group characteristics (Edo, Jacquemet, & Yannelis, 2019; Kaas & Manger, 2012; Kristinsson & Sigurdardottir, 2020).

Unfortunately, while field experiments have generally been successful in documenting the existence of discrimination, they have struggled (with some exceptions) to link discrimination patterns to a specific theory. One of the seldom successful occurrences, on this respect, was the study of Kaas and Manger (2012), who sent two different applications in Germany, one with a Turkish-sounding

name and one with a typical German name. The authors found that discrimination disappeared when the sample was restricted to applications including reference letters, in this way reducing the information asymmetry and providing evidence for statistical discrimination. In another study, Nunley et al. (2015) responded to online job postings from fictitious job seekers in the USA and observed a higher interview rate gap for jobs that require customer interaction, suggesting evidence for TB discrimination.

Zschirnt and Ruedin (2016) conducted a meta-analysis of data from previous field experiments on ethnic discrimination in hiring and discovered contrasting evidence concerning the underlying mechanisms. Lane (2016), in his meta-analysis of laboratory studies on discrimination, also found diverging evidence.

Despite significant attention being focused on differentiating between TB and statistical discrimination, none of the previous studies have utilized first- and second-generation immigrants to control for this distinction. More convergent results emerge once the inclusion of first- and second-generation immigrants is introduced in field experiments aimed at comparing two entirely equivalent categories in terms of productivity (Lancee et al., 2019). This approach serves to isolate statistical discrimination from TB discrimination, as second-generation immigrants are deliberately structured in these experiments to closely resemble natives, with the exception of their origin. Conversely, first-generation immigrants are tailored to have received education in their home country, thus theoretically making them distinguishable in terms of their productivity (Busetta et al. 2018).

Carlsson (2010) sent qualitatively identical resumes and found that the probability of being invited to a job interview in Sweden was significantly lower for immigrants than for natives. This probability did not significantly change between first- and second-generation immigrants, despite the fact that second generation immigrants were born and have obtained all their qualifications in Sweden, as opposed to first-generation ones. These findings underscore the necessity for authorities to intensify their efforts in enforcing the existing anti-discrimination laws as it represents a clear symptom of TB discrimination. Authors conclude that authorities could strengthen antidiscrimination laws by periodically conducting discrimination tests in the job market, similar to the field experiment in their research. With government resources, they can rigorously assess employers and impose substantial penalties, potentially reducing ethnic discrimination in the labor market.

A similar experiment by Midtbøen (2016) in Norway showed that applicants with Norwegian names were 25% more likely to receive a callback for a job interview than equally qualified applicants with Pakistani names, and this result holds even when the candidates were second-generation immigrants.

In addition, other researchers (Lancee et al., 2019) conducted a highly suitable harmonized experiment across five European countries (Germany, Netherlands, Norway, Spain, and the UK), known as GEMM (Growth, Equal Opportunities, Migration, and Markets). Their findings offer limited support for the notion that incorporating diagnostic personal information mitigates discrimination against ethnic minorities (Thijssen et al., 2021).

Busetta et al., (2018), conducted a similar experiment in Italy using natives, first, and second generations, but also incorporating the candidate's origin as a factor. Specifically, they included the most common immigrant nationalities in the country: Albanian, Chinese, Moroccan, and Romanian, as well as German as a control variable, being the most prevalent nationality among non-Anglophone Western countries. Their results revealed higher levels of discrimination among the

second generation compared to natives, albeit lower than the first generation. This finding aligns with existing scholarly literature, which posits that the ethnic hierarchy is indicative of significant taste-based discrimination (Zschirnt and Ruedin, 2016). Furthermore, among the analyzed second generations, those of Moroccan and Chinese origin were considerably more discriminated against compared to Albanian and Romanian ones. Aligned with the perspective of Zschirnt and Ruedin (2016), who emphasize the significance of acknowledging taste-based discrimination, it becomes reasonable to infer that minority groups with more pronounced visible differences could encounter elevated levels of discrimination in comparison to other groups. Furthermore, the authors (Busetta et al., 2020b) introduce the Discrimination Decomposition Index (DDI), an index specifically designed to deconstruct overall discrimination into its TB and statistical components. While the scientific literature on discrimination has made notable attempts to develop discrimination indexes, such as those by Duncan and Duncan (1955), Shulman (1987), and Chen and Zhang (2018), none of these previous studies have directly addressed the separation of the influences of statistical discrimination and TB discrimination.

The significant advantage of the DDI in comparison to the others is that it allows for the evaluation of taste-based discrimination's impact across various countries and for different job types, with the goal of identifying the most effective intervention to implement in each specific instance.

In this respect, Lippens et al. (2022) presented a comprehensive overview of research specifically focused on the quantitative empirical evidence related to the primary economic mechanisms of ethnic labor market discrimination. Considering their findings and the causal inferences from experimental studies, they suggest that taste-based discrimination may better explain ethnic discrimination in hiring. As a policy implication, increasing the cost of hiring discrimination against ethnic minorities could help reduce this unequal treatment, rather than requiring additional information from applicants about their skills or competence.

Field experiments, situation testing and correspondence studies.

The existing literature demonstrates various types of such discrimination by categorizing individuals into minority and majority groups. Over the past 50 years, numerous field experiments have been conducted to assess the potential level of discrimination in the labor market (see Rorive, 2009; Rich, 2014; Baert, 2018; for reviews of this literature). One of the most employed field experiments involves sending fictitious CVs to real job openings to examine whether being part of a minority group could be a factor contributing to discrimination in the labor market. The primary forms of discrimination examined encompass those related to gender (Olian et al., 1988; Raijman and Semyonov, 1997; Arai et al., 2016; Bygren et al., 2017), race (Riach and Rich, 2002; Bertrand and Mullainathan, 2004; Oreopoulos, 2011; Bursell, 2014; Busetta et al., 2018), age (Lahey, 2008a, 2008b; Van Borm et al., 2021), disability (Bjørnshagen and Ugreninov, 2021), sexual orientation (Drydakis, 2009), body weight (Agerström & Rooth, 2011; Busetta et al., 2020a; Rooth, 2009), and attractiveness (Agerström & Rooth, 2011; Busetta, Fiorillo & Palomba, 2020; Goulão et al., 2023). These studies consistently demonstrate that resumes from minority group members tend to receive more negative evaluations, on average, in comparison to identical resumes attributed to majority group members.

It is essential to determine the goal we want to achieve through the field experiments: Are we using this methodology for litigation in court or procedure before the national equality bodies or for research? In the first case, we want to prove through field experiments that there has been discrimination because, in most cases, there is no direct evidence of direct discrimination (Chalovska, 2014). In the second case, we want to prove the discrimination in a specific field based on a ground through the conducting of discriminatory practice.

Field experiments are classified in two main forms: *audit studies* and *correspondence studies*.
Audit study (called situation testing, auditing, pair-comparison testing or paired testing) is an experimental method which can be used in various cases, including research, advocacy, and reporting in the media, to strengthen the evidence in individual cases of direct discrimination before the equality body and the court; to measure the extent of discrimination and create adequate public policy measures. (Rorive, 2009; Chalovska, 2014). *Situation testing* is a method involving the use of pairs of applicants for a job vacancy that differ solely based on a single characteristic reflecting the discriminatory ground (ethnicity, sex, age, etc.) under scrutiny, giving the possibility to investigate the occurrence of discrimination in different areas and grounds. (Rorive, 2009; Chalovska, 2014). Great Britain and the USA started to use situation testing in research in the 1970s; meanwhile an important application of the method in Europe is the extended study of ethnic discrimination in recruitment coordinated by the International Labour Organisation in the 1990s.

Situation testing can facilitate strategic litigation, collecting evidence for the presumptions of unequal treatment. Some national equality bodies have expressly provided by law the opportunity to use situation testing. It has been covered within the regular legal system in Hungary, France, and a part of Belgium (Baraku, 2017; Chalovska, 2014). The Equal Treatment Act (ETA) introduced statutory acknowledgement of situation testing in Hungary. The relevant provision expressly authorizes the equality body to conduct testing in the course of its investigations and to consider its result as evidence when making a decision (Kádár, 2022). In Belgium, both federal acts provide for the right of the victim to produce certain evidence, such as "recurrence tests", which will be taken in consideration by the judge to presume that discrimination has occurred. "Recurrence tests" are closely linked to situation testing but are less controversial under this terminology and are, therefore, explicitly mentioned in the legislation (Van Drooghenbroeck, 2022). The French equality body has been asked to provide methodological support on situation testing to the State Prosecutor's Offices. However, it has also been successfully used to tackle the discriminatory refusal to access to housing and Parisian taxis by people with guide dogs (EQUINET, 2016).

In most countries, situation testing is not expressly provided by legislation, but it is not forbidden either. Consequently, this methodology has been used in practice for quite some time by many countries such as The United Kingdom, Netherlands, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Hungary, Latvia, Slovakia, Sweden, Austria, Cyprus, and Italy. In Slovenia, judicial interpretation is required concerning whether situation testing is permitted by law and whether situation testing, and statistical evidence are admissible as evidence in courts (Kogovšek Šalamon, 2022). In Austria, individuals have conducted situation testing by using fake e-mail accounts to enquire about jobs, which has effectively created doubts about the reason for rejection (EQUINET, 2016). In Italy, situation testing can be used as evidence in civil proceedings. However, evidence gathered through situation testing has not yet been presented to a court (Favilli, 2022). Czechia is an interesting case of using the situation testing. Meanwhile, the Czech courts have already accepted in some cases that everyone is authorized to verify whether they can exercise their rights, the Czech Ombudsman is not allowed to use situation testing, and its employees should not be the ones who carry out such testing in practice (Tomšej, 2022).

On the other hand, audit studies (situation testing) can be used for research, and the results contribute to change public politics or legislation and raise awareness to motivate all stakeholders to take measures. The research will be a tool in the processes of lobbying and advocacy in order to influence decision-makers to pay more attention to the practice(s) proven discriminatory with the testing (Chalovska, 2014).

Correspondence studies, through which testers do not meet physically with the potential employer but send pairs of resumes or letters of interest, one of which contains the observed characteristic. Discrimination is estimated by comparing the outcomes for the fictitious applicants with and without the perceived minority trait. (Bertrand & Duflo, 2017)

The correspondence method presents several advantages, such as the guarantee of generating strict comparability across groups for all information that the employers see; guarantees that any observed differences are caused only by the minority trait manipulation; the use of paper applications insulates from demand effects; the possibility to send out a large number of applications because of the relatively low marginal cost, in order that the researchers examine the nature of the differential treatment from many more angles and hence promises to link it more closely to specific theories of discrimination. (Bertrand & Duflo, 2017)

*Field experiments in both forms (audit studies and correspondence studies) have limitations, which have been the object of s*everal legal criticisms, mostly on audit studies (situation testing). However, there are common limitations as follows:
They have raised ethical concerns such as: (i) researchers who carry out these studies are using it without the involved parties' consent; (ii) the decline of an offer by fictitious applicants can convince the employer that applicants with similar attributes are unlikely to accept offers and consequently practicing less favorably behavior for real job applicants; (iii) both types of studies can only inform us about the average differences in hiring behavior, without giving us the possibility to know the level of discrimination at the margin; (iv) as fictitious applicants apply to entry-level jobs we don't have the information necessary about the discrimination in employment which may be different from the discrimination measured at the entry point in the labor market; (v) the outcome variables that can be studied are typically very coarse (Bertrand & Duflo, 2017).
Bertrand & Duflo (2017) emphasize another area for improvement of the audit studies, which are not double-blind and may create motives among testers to generate data related to their beliefs about the observed ground. In addition, in litigation court, the objectivity of testers who have sought advice from the alleged victims of discrimination has been questioned (Rorive, 2009).
The main limitation *of correspondence studies* is the extent of outcomes captured by field experiments (Bertrand & Duflo, 2017). The results are mainly related to the interview invitations, and this methodology cannot be taken to other stage of the employment.

3. Data and methods

To decompose the impact of statistical from TB discrimination, we applied a specifically constructed index (Busetta et al., 2020b) known as the Discrimination Decomposition Index (hereafter referred to as DDI). We applied this index to the harmonized correspondence experiment conducted by Lancee et al. (2019) in five European countries (Germany, Netherlands, Norway, Spain, and the UK), known as GEMM (Growth, Equal Opportunities, Migration, and Markets) and compare the results obtained with the ones of another correspondence experiment applied to Italian labor market (Busetta et al. 2018).

The two experiments are the following:

1) GEMM (Lancee et al., 2019) is a cross-countries comparative experiment (Germany, Norway, Netherlands, Spain and the UK) which consists in sending more than 19,000 applications, almost half men and half women in nearly two years (2016 – 2018). Candidates are native, first (arrived at the age of six) and second-generation immigrants (native born from foreign parents).

2) Correspondence on the Italian labor market (Busetta et al. 2018) is a single country experiment, which consists in sending 22000 applications, almost half men and half women in nearly one year (2013-2014). Candidates are native, first (arrived after studies) and second generation immigrants (native born from foreign parents).

The index is constructed using call-back rates for Italian first- and second-generation individuals. The concept behind the index is that differences in callback rates between second- and first-generation candidates can be attributed to statistical reasons. Conversely, differences between Italian and second-generation individuals must inherently be driven by TB reasoins, as they are identical in every respect to Italian candidates (both being Italian native speakers who have always resided in Italy).

The index is constructed as the sum of Statistical Discrimination Index (from now on SDI) and Taste-Based Discrimination Index (from now on TBDI), making the sum of the two kinds of discrimination equal to 1 by construction.

SDI is constructed as the ratio between statistical and total discrimination, and it is equal to:

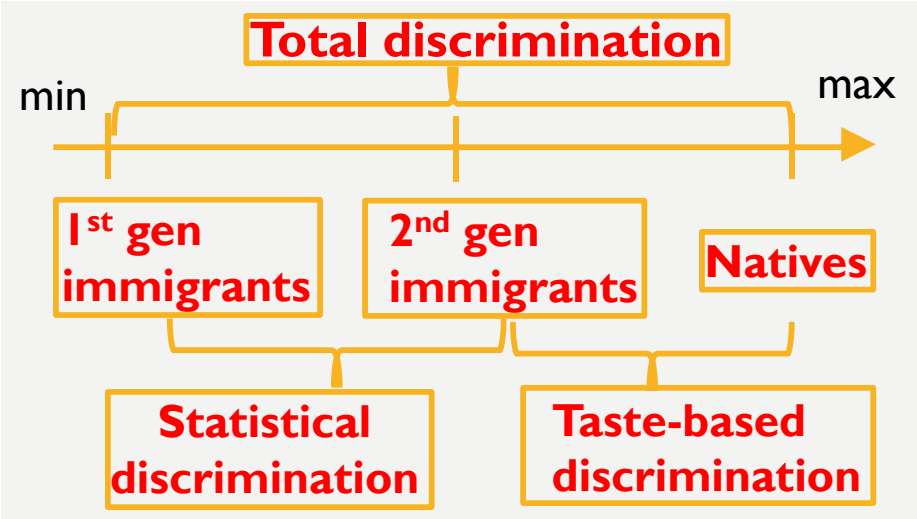
$$1)\ SDI.=\frac{\text{C.B.rate 2nd gen}-\text{C.B.rate 1st gen}}{|\text{C.B.rate natives}-\text{C.B.rate 1stgen}|}$$

TBDI is constructed as the ratio between TB discrimination and total discrimination one, and it is equal to:

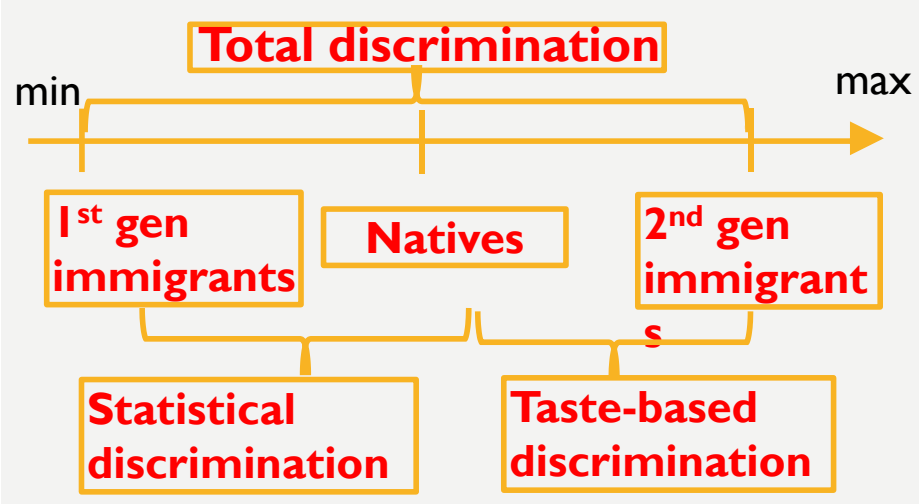
$$2)\ TBDI=\frac{\text{C.B.rate natives}-\text{C.B.rate 2nd gen}}{|\text{C.B.rate natives}-\text{C.B.rate 1st gen}|}$$

Native candidates are usually preferred over second-generation immigrants, which are in turn preferred over first-generation ones, but this is not always the case. Depending on whether natives, first- or second-generation individuals are preferred over the other two, several situations can happen. Three are the cases happened analyzing the GEMM and Italian datasets.

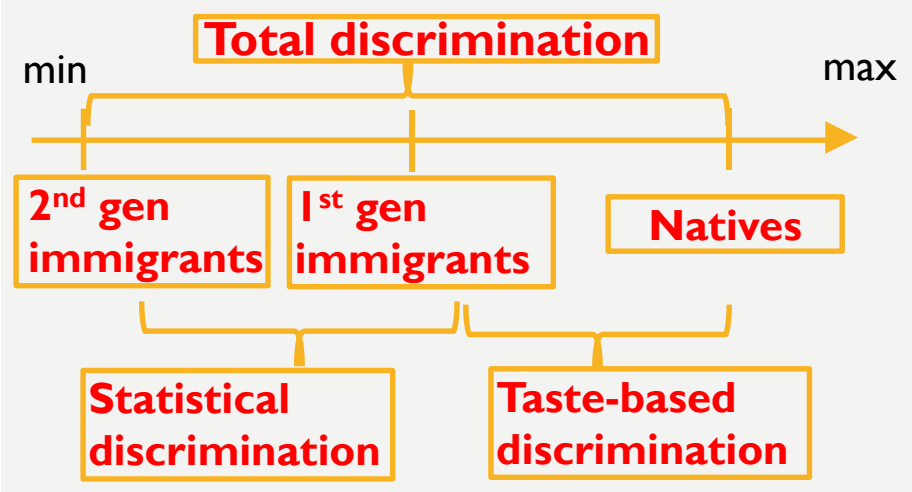
Case 1 – Decomposition of discrimination with statistical and TB discrimination both positive



Case 2 - negative values of TB discrimination with positive values of statistical one



Case 3 - negative values of statistical discrimination with positive values of TB one



While case 2 implies a preference for second-generation immigrants over natives, case 3 implies a preference for first-generation immigrants over second-generation ones.

4. Results

Table 1 shows the DDI calculated on GEMM dataset for the five European countries and for the characteristic of the job and of the candidate. As shown in the Table, in all of the countries over 80% of discrimination is coming from TB reasons both for women and for men, Moreover, if we consider the data disaggregated by the characteristic of the job (either front- or back-office) or by the required educational qualification (either Graduate, highschool, or no title) SDI become even negative, with total discrimination all coming from TB reasons.

When looking at the data on Italianlabor market, the situation is slightly less inclined in favor of TB discrimination, with values which are however not less than 60% in favor of TB reasons with TB discrimination of 73% in favor of women and 67% in favor of men, 62% in favor of TB for front office and 79% for back office, 65% for graduate, 61% for highschool, and over 90% for no title.

Table 1 - DDI on GEMM dataset for the five European countries and for the characteristics of the job and of the candidate

Stats	Nativeborn A	first_gen B	Second_gen C	TBDI=$\frac{A-C}{\lvert A-B\rvert}$	SDI=$\frac{C-B}{\lvert A-B\rvert}$	TOT_DISC
both genders	0.29	0.22	0.22	1.05	-0.05	+1
Females	0.3	0.23	0.23	0.92	0.08	+1
Males	0.28	0.22	0.21	1.26	-0.26	+1
Germany	0.38	0.32	0.31	1.2	-0.2	+1
Norway	0.24	0.17	0.15	1.17	-0.17	+1
Netherlands	0.43	0.32	0.34	0.84	0.16	+1
Spain	0.24	0.19	0.19	0.93	0.07	+1
UK	0.13	0.1	0.08	1.47	-0.47	+1
Graduate	0.33	0.27	0.26	1.13	-0.13	+1
highschool	0.2	0.15	0.15	1.03	-0.03	+1
no title	0.32	0.24	0.24	1.03	-0.03	+1
front_office	0.24	0.18	0.18	1.01	-0.01	+1
back_office	0.33	0.26	0.25	1.08	-0.08	+1

Table 2 shows inverse discrimination in favor of women for all of the five European countries analyzed with GEMM dataset, with callback rates massively higher for women than for men in Germany and UK, both for natives, and immigrants of first- and second-generation. Discrimination in favor of men emerges instead in the Italian labor market for all the three categories of nationalities, with callback rates even doubled for men than for women. Concerning TBDI, it is over 70% for all the countries and genders.

Table 2 - DDI on GEMM dataset for the five European countries analysed separately and by gender

	nativeborn	first_gen	second_gen	TBDI	SDI	TOT_DISCR
Germany						

men	0.37	0.33	0.28	1.96	-0.96	+1
women	0.4	0.32	0.34	0.76	0.24	+1
			Norway			
men	0.25	0.17	0.13	1.46	-0.46	+1
women	0.23	0.17	0.18	0.8	0.2	+1
			Netherlands			
men	0.42	0.32	0.33	0.88	0.12	+1
women	0.45	0.32	0.34	0.81	0.19	+1
			Spain			
men	0.22	0.17	0.17	0.96	0.04	+1
women	0.26	0.2	0.2	0.95	0.05	+1
			UK			
men	0.13	0.09	0.08	1.33	-0.33	+1
women	0.13	0.1	0.08	1.63	-0.63	+1

5. Conclusions

A comparative analysis of non-discrimination law in Europe concludes that an important barrier to effective enforcement is the lack of 'effective, dissuasive and proportionate' sanctions and remedies, in particular beyond the area of employment (Chopin, & Germaine, 2023). However, the Court of Justice of the European Union states that "the severity of the sanctions must be commensurate to the seriousness of the breaches for which they are imposed, in particular by ensuring a genuinely dissuasive effect (…), while respecting the general principle of proportionality (Asociaţia Accept judgment, 2013).From the analysis just presented, it emerges that in all five European countries analyzed using the dataset provided by the GEMM project (Lancee et al., 2019), as well as in the Italian labor market (Busetta et al., 2018), the level of taste-based discrimination is very high, often reaching levels as high as 90% of the total discrimination.

One of the most widespread policies to combat TB discrimination consists in penalizing discriminatory behavior towards job applicants and employees, using a punitive approach. Analyzing the composition of the workforce and examining wage disparities within companies is considered the most direct method to detect potential discriminatory practices. The usual method for workforce composition monitoring involves the establishment of specific targets through the imposition of quotas and subsidies. In most countries, anti-discrimination legislation stipulates explicitly that positive action measures are permitted in relation to some or all grounds, although the specific scope and requirements vary (Chopin & Germaine, 2023). Such approaches aim to ensure that minority representation in the workforce aligns with the proportion of local and qualified workers. However, the challenge lies in defining what "local" and "qualified" mean precisely. Thus, monitoring workforce composition alone does not inherently prevent discrimination, as there is a risk of setting quotas and subsidies either too low or too high, which can lead to resentment and stigmatization of the groups the policy intends to assist (Valfort, 2018).
European Commission and European Commission against Racism and Intolerance (ECRI) of the Council of Europe establish the standards for the competencies of the equality body, including issuing recommendations or legally binding decisions in cases of discrimination. Usually, the mandatory decision-making of equality bodies (mainly quasi-judicial institutions) refers to the system of sanctions and remedies (Wladasch, 2015). ECRI standards provide that even when equality bodies cannot issue legally binding decisions and sanctions, they should have competences to issue non-binding recommendations and to seek to ensure their implementation (Crowley, 2021).

The aforementioned affirmative actions can result in unintended outcomes, as determining the appropriate level of representation for minority groups is frequently complex. The results of the present analysis also revealed that the level of discrimination varies significantly from one country to another, with gender discrimination ranging from very pronounced to even being reversed, depending on the country analyzed. For this reason, -the use of correspondence tests as evidence in court and as methodology to evidence the systemic discrimination in labor market are strongly recommended.
To counteract potential resentment among non-discriminated groups, three approaches can be considered. Firstly, prioritize hiring subsidies over quotas to offer more flexibility in accommodating varying proportions of discriminated groups across firms. Secondly, compute subsidy levels based on evidence from correspondence studies measuring hiring discrimination and labor cost sensitivity, aim to close the hiring gap across groups without undue favoritism. Thirdly, establish specialized employment intermediaries to assess and certify the skills of subsidy beneficiaries, emphasizing competence rather than mere eligibility for affirmative action programs (Valfort, 2018).

In accordance with Miller (2017), we believe that affirmative action, whether implemented through quotas or hiring subsidies and conducted using correspondence tests, encourages recruiters to prioritize the hiring of individuals from discriminated groups who exhibit the highest levels of productivity.

In addition, we think that utilizing the outcomes from such experiments to combat discrimination offers the benefit of circumventing the need for precise definitions of 'local' and 'qualified,' thus mitigating the risk of setting overly high or low corrective measures. Additionally, this practice has the potential to reshape a company's incentive framework, promoting equitable behavior through the threat of sanctions for non-compliant actions.

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