



‘Tell me more. . .’: the kind of information added influences ethnic discrimination in the Swiss rental housing market

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ABSTRACT

Experimental research in many countries shows that ethnic or racial minorities are discriminated against in rental housing markets. Such discrimination may reflect an aversion to minority tenants, but can also be due to the use of stereotypical images of minorities in the absence of clear signals that minority apartment seekers are suitable tenants. Existing experimental research has struggled to distinguish these two channels. In a nationwide field experiment in Switzerland (paired applications to over 5,700 proprietors), we find evidence of discrimination against apartment seekers with Turkish and Kosovar names (i.e., distant minorities), while individuals with names from neighbouring countries (i.e., close minorities) are not discriminated against. Requests with more information generally receive more invitations, but the effect of this increased invitation rate is similar across minority groups. We find that adding more information does not reduce discrimination as such, as many previous studies have been claiming, but that the kind of information provided matters: while offering additional information about employment status reduces discrimination for individuals with Kosovar and Turkish names, signalling naturalisation does not lead to less discrimination.

KEYWORDS Housing market; ethnic discrimination; correspondence test; Switzerland; statistical discrimination; citizenship premium

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Introduction

Despite substantial legal changes since the 1960s, ethnic and racial disparities appear to be a historical constant. Some of these differences are attributed to discrimination. A large body of evidence shows that ethnic and racial discrimination occurs in many areas of human interaction, from the labour and housing market (Auspurg, Schneck and Hinz, 2019; Flage, 2018; Zschirnt and Ruedin, 2016) to elections (Portmann and Stojanović, 2019), and from naturalisation and asylum decisions (Emeriau, 2023; Hainmueller and Hangartner, 2013) to access to mental care (Shin *et al.*, 2016), to name just a few (see Lippens, Vermeiren and Baert, 2023, for a review). Overall, discrimination remains a pervasive phenomenon, especially in the labour market (Heath and Di Stasio, 2019; Quillian *et al.*, 2017), although there may be small improvements in the housing market (Quillian, Lee and Honoré, 2020; Auspurg, Schneck and Hinz, 2019).

Two of the most frequently used theories to explain the occurrence of discrimination in the marketplace from the field of economics, but also widely drawn upon in sociology, focus on the aversion to minorities (taste-based discrimination theory; Becker, 1957), or the role of information (statistical discrimination theory; Arrow, 1973; Phelps, 1972). If discrimination is caused by the former mechanism, employers (or in our case proprietors) show an aversion to cooperating with people based on their group membership and accept that this preference can come at a cost. Small details signalling minority status in an application are prioritised in the decision-making process and thus lead to discrimination (e.g., Fossati, Wilson and Bonoli, 2020; Piopiunik *et al.*, 2020). Therefore, to reduce discrimination, it may be necessary to increase the costs of discrimination or to work on perceptions and impose changes to selection procedures to reduce the salience of ethnic and racial markers and to achieve a fairer outcome, as other details in an application are likely to be overlooked when ethnic and racial markers are available.

The latter mechanism—statistical discrimination theory—however, highlights at its core how the lack of information about minorities or the presence of inaccurate information and stereotypes (also called error discrimination) can influence market situations and decision-making and lead to discrimination. In this case, if discrimination really reflects a lack of information, then voluntary changes to application documents, increasing or improving information such as through the formal recognition of lesser known qualifications, or introducing different selection procedures should lead to a fairer treatment, that is, a reduction of discrimination rates. Thus, in both scenarios, removing or adding small details in an application can act as relevant signals and make a big difference to the outcome.

In this article, we contribute to the ongoing discussion about taste-based versus statistical discrimination, by conducting a nationwide field experiment in the Swiss rental housing market to investigate the role of information. We vary (1) the type and amount of information in an application for a rental apartment and examine how it influences proprietors' decision-making process and discriminatory behaviour and (2) the immigrant background of the fictitious candidates to study discrimination against groups with different stereotypical images. We find that people who provide more information are more likely to be invited for an apartment viewing. This increase in invitation rate, however, does not vary substantially by ethnicity—as signalled by names. Put differently, providing more information in applications in itself does not reduce discrimination against minority candidates when compared with equivalent applications from majority groups. However, we do find that providing more information about the employment status reduces discrimination for distant minorities (i.e., those with Kosovar- and Turkish-sounding names) with high-status jobs. Merely providing more information does not systematically reduce the gap in invitation rates between majority and minority apartment seekers: either statistical discrimination is not the main mechanism of minority discrimination in the housing market, or proprietors use information on employment selectively as a signal of the ability to pay. There is no systematic evidence of a citizenship premium for distant minorities in the housing market.

Theoretical background

Discrimination, in its broadest sense, is the unequal treatment of a member of a minority group based on an irrelevant criterion (such as belonging to a certain ethnic or racial group; Quillian, 2006). Other definitions, for example in economics, are more narrow: Heckman, for instance, defines discrimination at the level of an individual (such as a job or credit applicant) as arising 'if an otherwise identical person is treated differently by virtue of that person's race or gender, and race and gender by themselves have no direct effect on productivity' (1998, p. 102). While most theoretical discussions focus on labour market discrimination, these definitions have also been applied in the context of housing markets, referring for example to the creditworthiness of different applicants for an apartment (e.g., Zhao, Ondrich and Yinger, 2006). In the housing market, for a proprietor or agency, the skin colour or the name of a prospective tenant in itself does not affect the likelihood that the tenant will pay rent or look after the property. If a proprietor or employer discriminates against members of minority groups, they may not select the ideal candidate or tenant, which should put them at an economic disadvantage in the long run compared with those who do

not discriminate (Sowell, 2018). In this sense, the persistence of discrimination is not only unjust but also puzzling to economists (Blank, 2005).

Historically, there have been two prominent theories originating in the economics literature as to why discrimination occurs:¹ taste-based discrimination (Becker, 1957) and statistical discrimination (Phelps, 1972), both of which originally focus on labour market discrimination, but have also been adapted to the housing market (see, e.g., Dymski, 2006; Auspurg, Schneck and Hinz, 2019). The former assumes that some individuals have a ‘taste for discrimination’ (p. 14) and are willing to pay a price for this, such as forfeiting income, or avoiding contact with a member of a group they do not like. From an economist’s point of view, Becker highlights that people may value taste, or not having to deal with people they dislike, over maximising monetary returns. In a competitive market, however, this puts them at a disadvantage, and firms that discriminate against minorities in hiring, for example, may become less profitable and less competitive in the long run. Indeed, Pager (2016) shows that businesses that discriminated against minorities in a field experiment on hiring were more likely to be out of business six years later than firms that did not. Looking at the housing market, Choi, Ondrich and Yinger (2008) distinguish between two forms of taste-based discrimination, one that is driven by agents’ taste for discrimination (the agent-prejudice hypothesis) and another that is driven by customers’ taste for discrimination (the customer-prejudice hypothesis).

Accounts of statistical discrimination (Aigner and Cain, 1977; Arrow, 1973; Phelps, 1972), by contrast, emphasise that minority disadvantage can also occur when employers and proprietors are intending to maximise their profits. In this sense, the theory should be seen as a complement rather than a contrast to taste-based discrimination, as it is often presented. It is based on the imbalance of information between buyer and seller. Obtaining the missing information is costly (time, effort), and employers or proprietors may use group averages as a heuristic: information about a group’s average performance is used as a shortcut to infer the likely characteristic of an individual group member. This mechanism is less affected by competition because the heuristic itself saves the cost of obtaining individual information. However, the availability of new information about group averages and individual group members can potentially change

¹ This paper focuses on taste-based and statistical discrimination theories, possibly the two most prominent (economic) theories of discrimination. There is a large body of literature in sociology and social psychology that focuses on other possible explanations, such as focusing on intergroup relations, stereotypes, organisational explanations and status discrimination. A discussion of these alternative theories would go beyond the scope of this article, but Fibbi, Midtbøen and Simon (2021) and Lippens *et al.* (2022, for the labour market) provide a good overview of different theories on discrimination.

discrimination patterns in the long term if employers (or in our case, proprietors) update their beliefs about specific groups (Arrow, 1998; Darity and Mason, 1998). Related to lacking or incomplete information, decision-making could also be based on incorrect information—also known as ‘error discrimination’ (England and Lewin, 1989). In these cases, employers or proprietors might reject good candidates based on their erroneous beliefs about a certain group. In both statistical and error discrimination, decision-makers follow the same goal: maximising productivity by using group information as a heuristic rather than avoiding contact with a specific group.

In the original account of statistical discrimination theory (Phelps, 1972), discrimination is informed by actual group-level differences in talent or other desirable characteristics, such as the ability to pay for or look after a rented apartment. In this case, the use of group membership is a heuristic that is correct on average, albeit inferior to selection based on individual-level information, which allows recruiters or selectors to beat the average and pick the better applicant most of the time. Perhaps because early accounts did not specify where the information about group-level differences comes from, in more recent contributions we often see references to ‘statistical discrimination’, which really just means lack of information in general. In recent years, a whole literature on signalling has emerged (e.g., Schaeffer, Höhne and Teney [2016] on educational credentials possibly causing positive discrimination; Gaddis [2017] on the signalling value of names; or Sen and Wasow [2016] on race as a bundle of sticks).

Research by Tilcsik (2021) has shown that using stereotypes based on such statistical understanding of discrimination is also used as a rationalisation for discriminatory decision-making—an argument that is in line with (some) economists claiming that statistical discrimination could be seen as more ‘theoretically efficient and, hence, more easily defensible in ethical terms under the utilitarian argument’ (Bertrand and Duflo, 2017, p. 312), while taste-based discrimination is described as ‘economically irrational [and] subjective’ (Lippens *et al.*, 2022, p. 4244). We suspect that such a simplified understanding is what allows recruiters and selectors to justify statistical discrimination in their views, even if this effectively amounts to a rationalisation of ethnic and racial stereotypes that is not so different from accounts of taste-based discrimination (Fibbi *et al.*, 2019; Tilcsik, 2021).

Since the 1950s, field experiments (i.e., in-person audit studies and especially written correspondence studies) have been used to capture ethnic discrimination in market situations (Lippens, Vermeiren and Baert, 2023; Oh and Yinger, 2015), even though they raise ethical questions as researchers intervene in real market decisions (Zschirnt, 2019b). Applied to the housing market in particular, researchers send standardised requests to advertised properties asking for a

viewing. They count how many requests from minority and majority applicants result in an invitation, but sometimes also make qualitative assessments of the nature of responses (friendliness, length of response, how much information is provided; e.g., Hanson, Hawley and Taylor, 2011; Zschirnt, 2019a).

To better understand how information affects discrimination, we can use qualitative accounts (for Switzerland see Bonnet and Pollard, 2021; for Belgium see Verstraete and Verhaeghe, 2020) or experimental studies. In the latter case, applications vary by the amount and quality of information that is provided by a candidate. For instance, requests to view an apartment can be sent with and without an individual signal of creditworthiness—information on credit in itself as additional information, and positive information about creditworthiness as relevant or high-quality information about a potential renter. This allows inferences to be made about the role of such information in decisions, but not about whether actual group-level information is used in the absence of individual-level information, or whether stereotypes are used to convey what might be perceived as group-level information. In this sense, audit studies alone can provide only indicative evidence of statistical discrimination, and we prefer to refer to the role of information.

Proprietors and real estate agents may perceive ethnic minority tenants as a greater risk and therefore decide to charge higher rents, demand higher security deposits or additional fees to hedge against this risk, or impose higher penalties for missed or late payments (Acolin, Bostic and Painter, 2016; Auspurg, Hinz and Schmid, 2017). Consistent with uncertainty as the key driver of statistical discrimination, proponents of statistical discrimination theory argue that the extent of discrimination should decrease when potential tenants provide information about a higher social status (e.g., by mentioning high-skilled employment). While individual studies have been inconclusive about the effect of additional information on reducing discrimination (e.g., Ahmed, Andersson and Hammarstedt, 2010; Auspurg, Hinz and Schmid, 2017; Baldini and Federici, 2011; Bosch, Carnero and Farre, 2010; Ewens, Tomlin and Wang, 2014; Hanson, Hawley and Taylor, 2011), the meta-analysis by Auspurg, Schneck and Hinz (2019) shows a clear effect for the impact of information that is provided by apartment seekers: discrimination is reduced by about one third if more information is provided.² Yet, they also find that some discrimination remains even in high-information conditions, which could suggest the presence of taste-based discrimination alongside statistical discrimination.³ A second meta-analysis by

² This part of the meta-analysis by Auspurg, Schneck and Hinz (2019) looked at nine individual studies in which the amount of information had been varied.

³ In a systematic review of studies focusing on labour market discrimination, Lippens *et al.* (2022) find that studies report evidence for both taste-based and statistical discrimination

Flage (2018) also shows that applicants who provide more information are more likely to be invited for an apartment viewing; however, as invitation rates increase for both majority and minority applicants, discrimination remains quite stable. These previous studies, however, only compare a 'standard' and an 'enhanced' CV with added information, without varying what kind of information is provided.

While previous studies often compared only one minority group towards the majority group (e.g., German natives vs. Turkish migration background in Auspurg, Hinz and Schmid [2017] or White vs. African American in Hanson, Hawley and Taylor [2011]), we look at different minority groups⁴ (neighbouring countries, Turkish or Kosovar background) to see whether providing certain information is particularly beneficial for (some) minority applicants. We also test whether the length and quality of an inquiry letter (e.g., the tone) or information on the occupation or residence status affects discrimination rates. Starting from a 'traditional' statistical discrimination expectation, we formulate our first hypothesis:

Information hypothesis (amount of information): Applicants who provide more information about themselves are more likely to be invited for a viewing.

While more information about applicants may increase the likelihood of being invited for an apartment viewing, we also need to know whether these changes reduce the gap between the majority and minority populations: whether levels of discrimination are higher in situations where little information is provided, or whether providing information is a reliable way for ethnic minorities to overcome their disadvantage in the housing market. Recently, Weichselbaumer and Riess (2024) have shown that Serbian and Turkish immigrants do not benefit from mentioning their status as second-generation immigrants (compared with no information), while Syrian apartment seekers benefit from signalling a longer presence in the country. But does, for instance, signalling a successful integration through naturalisation decrease discrimination rates for minority applicants? There is little written on the theoretical argument of a citizenship premium in the discrimination literature, but we highlight research that shows the benefits of naturalisation for immigrants, especially for marginalised immigrant groups (Hainmueller, Hangartner and Pietrantuono, 2017). Indeed, the

theory. Evidence from the labour market is thus also mixed and might point towards a co-existence of both mechanisms.

⁴ One notable study looking at multiple minority groups with different migration histories or perceived social distance is Sawert (2020), who tests for discrimination in the market for shared housing in Germany against established Turkish, recently arrived Syrian and US American candidates.

acquisition of citizenship can be expected to ‘positively affect the risk-calculation of landlords and real estate agents’ as a signal of long-term commitment and economic integration (Leclerc, Vink and Schmeets, 2022, p. 1409; Fossati, Liechti and Auer, 2020). While this ‘citizenship premium’ is well-established for labour market outcomes (on earnings for certain groups of immigrants, see Peters, Vink and Schmeets, 2018; Steinhardt 2012), there is little comparable research on the housing market. We were able to identify two studies on the citizenship premium: Peters (2020) finds a citizenship premium for homeownership in the Netherlands, while Leclerc, Vink and Schmeets (2022) find that obtaining Dutch citizenship increases the likelihood of immigrants living in more affluent areas, especially those immigrants from countries with more stigma and discrimination. However, such a citizenship premium might also vary for the different minority groups, particularly in the Swiss context: while EU migrants already benefit from the free-movement provisions when moving to Switzerland, third-country nationals have less access to rights and therefore are more likely to apply for naturalisation once eligible.

Disadvantage hypothesis (quality of information): The level of discrimination is lower (or absent) when comparing applicants who provided a lot of information.

We note that existing research rarely questions the availability of (average) information: how proprietors and agents ‘know’ about different minority groups. Even professional agents are likely to encounter only a small number of tenants from each of the many minority groups, and we expect them to rely on stereotypes and hearsay (Bonnet and Pollard, 2021). Indeed, a survey experiment by Tilcsik (2021) shows that knowledge of statistical discrimination as such can lead decision-makers to rationalise decisions that are actually based on stereotypes (the same mechanism is described in Fibbi *et al.* [2019], drawing on focus group interviews). Since theories of statistical discrimination are silent on the origin of information, we prefer to focus on the role of information as such, rather than trying to maintain a distinction between taste-based and statistical discrimination that may be difficult to distinguish in reality.

The case of the Swiss rental housing market

With a foreign-born population of 30% in 2019, Switzerland has one of the highest percentages of residents who were born abroad among OECD countries. We can identify different waves of immigration to Switzerland in the 20th and early 21st centuries: the first wave of guest workers starting in the 1950s (e.g., Italians, Portuguese), the second wave of refugees in the 1990s (especially from the former Yugoslavia) and the third wave of European Union citizens

who arrived after Switzerland joined the free-movement area of the European Union in 2002 (Ruedin, Alberti and D'Amato, 2015). Here we focus on people who themselves or their parents were born in a neighbouring country (France, Germany, Italy), or in Kosovo or Turkey, the two largest non-Western European groups in Switzerland (Bundesamt für Statistik, 2021).

Given this high share of foreign-born residents and descendants with names that can be perceived as 'foreign', ethnic discrimination in the rental housing market potentially affects a large proportion of the population (see also Lacroix, Ruedin and Zschirnt, 2023). This is reinforced by the high share of people living in rented accommodation: 60.5% of households live in rented accommodation, compared with 84.4% for non-Swiss households (Bundesamt für Statistik, 2022). A field experiment by Jann (2014) found ethnic discrimination against Serbo-Croatian, Arab and Tamil tenants in the German-speaking region of Switzerland, while a qualitative study of real estate agents in the Lake Geneva region found that ethnic/racial stereotypes strongly influence tenant selection (Bonnet and Pollard, 2021). Furthermore, NGO reports, surveys and studies focusing on experiences of discrimination have repeatedly pointed to the housing market as an area where participants experience discrimination (Aeberli, Salviseberg and Probst, 2021; Efonayi-Mäder and Ruedin, 2017; Mugglin *et al.*, 2022; Mühlemann, Naguib and Piskoty, 2017). The rise in housing prices, especially in urban centres, has drawn attention to the housing conditions of the population, highlighting precarious groups such as low-income households and populations who were born abroad, who have greater difficulty finding suitable housing (Bundesamt für Statistik and Bundesamt für Sozialversicherungen, 2015; Heye, Fuchs and Blarer, 2017; Office Fédéral du Logement, 2016).

Data and methods

To capture ethnic discrimination and the role of information, we use a correspondence test (Gaddis, 2018).⁵ The nationwide field experiment in the Swiss rental housing market was conducted between March and October 2018. Using a paired design, in total, 11,460 paired requests were sent online to 5,730

⁵ The research design of a correspondence test has received ethical approval from the National Centre of Competence in Research NCCR—*on the move* at the University of Neuchâtel. In line with the general practice on correspondence tests in the housing market, it was not possible to obtain the informed consent of participants. The burden to participants has been kept as low as possible, and participants have not been debriefed after the experiment took place. For a detailed discussion on the research ethics implications of correspondence testing, see Zschirnt (2019b).

property owners across Switzerland⁶ who had advertised a rental property⁷ on the largest national online property portal. The apartments were located in 1,298 municipalities, thus covering around 60% of the country, with 80% of the population living in these municipalities in 2017. Responses were carefully recorded (invitation, no invitation)⁸ and used to calculate our dependent variable, the callback rate.

We used the name of prospective tenants to signal their ethnic origin, using a typically Swiss-sounding name or a name typically associated with one of three randomly assigned minorities (neighbouring country, Turkey, Kosovo) in fictitious profiles that are otherwise comparable. The choice of the neighbouring country (France, Germany or Italy) depends on the language of the original advertisement, as Switzerland consists of three main language regions with clear-cut borders. By tying the name to the language of the advertisement, we ensure that the indication of a culturally close minority candidate from a neighbouring country is not distorted by the strong within-country variation due to different languages spoken (see Supplementary Table 1 in the appendix for the full list of names used). We used stimulus sampling for all names to reduce dependence on unobserved connotations.

We treat prospective tenants with French-, German- and Italian-sounding names (neighbouring countries) as *close minorities*. Owing to the proximity between neighbouring country names and Swiss names, we divide this group into two sub-categories in the analysis. The ‘ambiguous close minorities’ have a French-, German- or Italian-sounding name, but no other information to signal minority status. The ‘close minorities’, on the other hand, explicitly signal their foreign status, by mentioning either that they have a permanent residence permit or that they have been naturalised, in addition to having a name from a neighbouring country that may not be immediately perceived as ‘foreign’. We treat candidates with Turkish or Kosovar names as *distant minorities*. Since immigrants from Turkey and Kosovo are found in relatively large numbers throughout Switzerland, this ensures that proprietors are somehow familiar with the names we used, and can correctly interpret the ethnic signal behind the name. In a

⁶ In the final weeks of the fieldwork, we oversampled properties in postcodes that had not yet been covered in the experiment to increase the spatial coverage. Within this oversampling, the selection of properties was as good as random.

⁷ Rental properties were approached individually from an unfiltered and unsorted list on the online platform. Each property had to be (1) a rental apartment, (2) located in Switzerland, (3) with 1 to 6 rooms and (4) available within three months. In addition, we (5) excluded commercial premises and holiday homes and (6) ensured that only one request was sent to the same proprietor or agency (except for agencies where different persons could be contacted directly).

⁸ We count 8,306 responses as positive callbacks, 3,025 as negative callbacks.

Table 1. Variation in profiles.

Ethnic background	Majority Swiss (Swiss-German, Swiss-French, Swiss-Italian, depending on language region of the property) Minority close (German, French, Italian, depending on language region of the property) Minority distant (Kosovar, Turkish)
Gender	Male, female
Family status	Single, couple, family with children (depending on apartment size)
Residency status (for minority applicants)	No information Long-term residency (C permit) Swiss citizenship
Occupation	Lower skilled (baker, electrician, painter, plumber, sales person) Higher skilled (accountant, engineer, pharmacist, social worker, veterinarian)
Length and quality of request	Default platform message Short and informal Standard Long and formal

Notes: Ethnic background is signalled with the name; stimulus sampling is used.

pre-test with 242 respondents and in a separate study with 1,100 respondents shortly after the field experiment,⁹ most respondents assigned the correct nationality to the names we chose, even though the signal for neighbouring countries may be less clear than a Kosovar- or Turkish-sounding name. Similar to the close minorities, the foreign origin of these names is made clearer in some cases by adding explicit information about a residence permit or (naturalised) Swiss citizenship.

Next to the ethnic background, gender and family status,¹⁰ we included three information treatments (Table 1). First, we provided information about the occupational status of an applicant (no information, low-status job or high-status job). Second, we varied the length and quality of the message, ranging from the default message of the online platform, to a long and rather formal message. Finally, we varied the information about a minority applicant’s residency status (no information; having a long-term residency permit, the C permit; or being naturalised). The experiment is designed to ensure variance in the level of treatment variables. Although information about employment and residency status is attached to specific templates, the level of each treatment can be found

⁹ The pre-test was a convenience sample and included students from different parts of Switzerland; the separate study used soft quotas on gender, education and age (Martiniello, Auer and Ruedin, 2024).

¹⁰ Family status depended on the apartment size; for example, for small apartments (1–2 rooms), we submitted applications only from childless applicants.

in both formal (detailed) and less formal (short) requests (see Supplementary Tables 2 and 3 in the appendix for examples of the messages sent and for the information included in the templates). Using employment as an example, fictitious candidates sending the ‘Default template’ or ‘Short and informal template 2’ provided no information on employment in their request, while prospective tenants sending ‘Standard templates 1 or 2’, ‘Short and informal template 1’, or ‘Long and formal templates 1 or 2’ randomly displayed a low- or high-status job.

To minimise the burden on proprietors and agencies, and to minimise the risk of detection, each proprietor or rental agency was included in the experiment only once. A single email was sent per profile to request an opportunity to visit the property, with no follow-up emails or phone calls, and invitations were quickly and politely declined if they were followed up.

While the housing market as such is not a low-cost market—rents are substantial and tenants are protected from unjustified eviction by proprietors—the field experiment focuses on the first screening when potential tenants send a request for a viewing. Although the cost of showing an apartment is relatively low, there is typically a high demand for vacant properties and some prospective tenants are filtered out at this stage. Although we can differentiate between proprietors (i.e., owners who rent out property themselves, but they can also be institutional bodies such as insurance companies or pension funds) and agencies (i.e., individuals who rent out property on behalf of the proprietors), research from Belgium that differentiated between proprietors and agencies has shown that this distinction seems to be of limited importance because agencies anticipate the preferences of proprietors (Verstraete and Verhaeghe, 2020).

Drawing on meta-analyses of ethnic discrimination in the housing market (Auspurg, Schneck and Hinz, 2019; Flage, 2018), our baseline expectation is that requests from prospective tenants with foreign-sounding names will receive fewer responses. To measure the prevalence of discrimination, we first predict the probability of an invitation for fictitious applicants with Swiss- and foreign-sounding names using ordinary least squares (OLS) regression models. As is common in correspondence studies, we coded non-response as a negative outcome. Standard errors are clustered at the apartment level given the pairwise design of the experiment, and discrimination is the difference in callback between majority and minority candidates. We adjust for apartment-level characteristics (i.e., rent, number of rooms and proprietor vs. agency) as well as for the candidate’s profile. The latter depends on the randomly assigned template. Canton (regional) and month fixed effects also account for the location of the apartment and the time of the request. We investigate the role of information on discriminatory behaviour by examining the amount and type of information included in the email request. We present within-group and between-group

Table 2. Probability of invitation to view an apartment, Switzerland, 2018.

	(1) Swiss	(2) Close minorities (ambiguous) ^(a)	(3) Close minorities (unambiguous) ^(b)	(4) Distant minorities
Invitation probability	0.742 (0.006)	0.750 (0.017)	0.762 (0.013)	0.708 (0.007)
Group difference		(3)–(1) 0.008 (0.017)	(2)–(1) 0.020 (0.013)	(4)–(1) – 0.034*** (0.007)
Applications	5,664	791	1,109	3,767

Notes: Outcome variable: probability to be invited for a viewing; OLS regression with standard errors clustered at the apartment level. The model controls for gender, template, rent, number of rooms, proprietor vs. agency, month and canton (not shown). ^(a)ambiguous close minorities have a name from a neighbouring country, ^(b)unambiguous close minorities also signal their origin explicitly (permanent residence permit, naturalised). *p < 0.05, **p < 0.01, ***p < 0.001.

differences by adding interaction effects between names and information categories (full tables in appendix). Within-group differences (Panel A of Figures 1–3) present the probability of invitation for each group and information category, testing whether applicants who provide more information about themselves are more likely to be invited for a viewing (information hypothesis). Between-group differences (Panel B of Figures 1–3) present the level of discrimination by information category and test whether the level of discrimination is lower (or absent) when compared with applicants who provided a lot of information (disadvantage hypothesis).

Results

Consistent with other studies of discrimination in the housing market, the invitation probability of being invited is high (73% on average, Table 2), reflecting the non-binding nature of the request to view a rental property and the invitation to do so. Differentiating the response rates by the applicant name in a matched-pair design reveals differences in treatment.

We find no evidence of systematic discrimination against foreign applicants who are expected to be (socio-culturally) close to the Swiss majority population, that is, German, French and Italian. This result holds even in cases where proprietors are clearly informed about the foreign origin of the applicant in the case of unambiguous close minorities. For this reason, for this interaction effect, we cannot distinguish between ambiguous and unambiguous close minorities. For distant minorities, including requests with Kosovar- or Turkish-sounding names, the callback difference indicates a statistically significant penalty of 3.4 percentage points, which corresponds to a discrimination

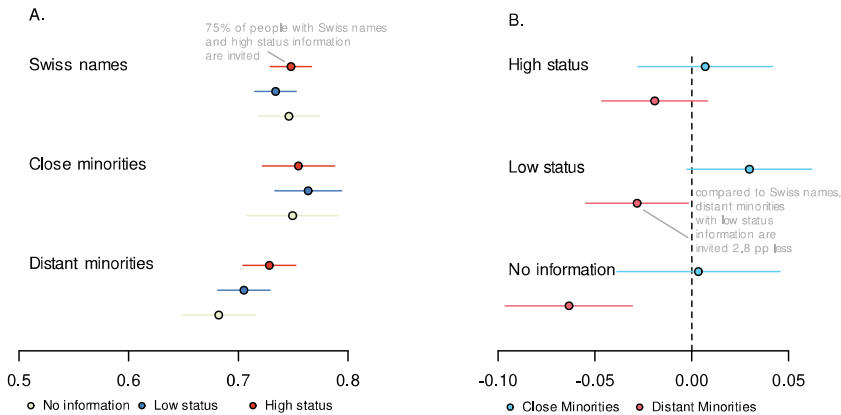


Figure 1. Probability of being invited by different levels of information about employment status, Switzerland, 2018.

Notes: OLS regression with an interaction between names and employment status (95% confidence intervals). Panel A: Predicted probabilities of an invitation by names and employment status (within-group differences). Panel B: Difference in callback between majority and minority applicants (i.e., level of discrimination) by employment status (between-group differences). Reference = Swiss applicants.

ratio of 1.05 (meaning apartment seekers with a Kosovar or Turkish name have to write 1.05 times as many requests to see an apartment compared with those with a native Swiss-sounding name). The baseline results therefore suggest that viewing requests for apartments, an arguably mild intervention compared with job interviews, represent a hurdle for minority groups that are perceived as distant. Compared with studies in other countries, this effect size is at the lower end but still within the range of common findings.¹¹

Quality and amount of information matter

Having established discrimination against distant minorities, we now show that the amount and quality of information matter in the screening process. Figure 1 shows the callback rates of minority and majority candidates with different levels of employment information. Panel A shows the within-group differences, that is, the probability of an invitation for each group based on the job information provided. Candidates with Swiss names have a callback rate of 74.6% when no employment information is provided. The probability of being invited for a viewing changes only marginally for this group when the type of employment

¹¹ The meta-analyses by Flage (2018) shows that ethnic minority applicants had 45% lower odds of being invited for an apartment viewing (odds ratio 0.55), while the meta-analysis by Auspurg, Schneck and Hinz (2019) found a 6.6 percentage points lower response rate for studies conducted in the time frame from 2008 to 2014.

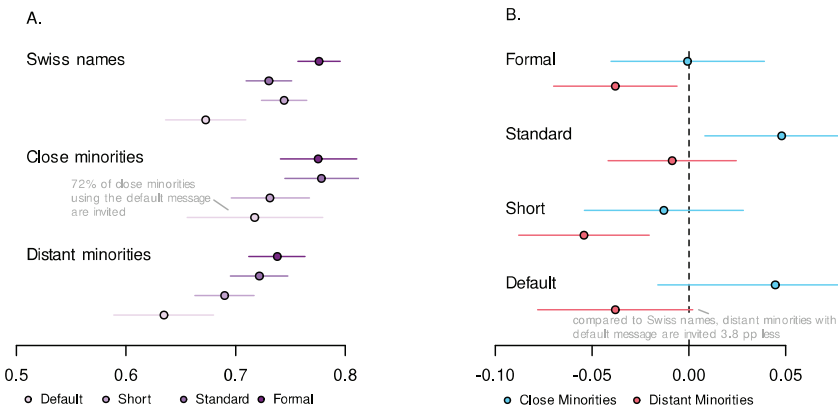


Figure 2. Probability of being invited according to length and politeness of the request, Switzerland, 2018.

Notes: OLS regression with an interaction between names and templates (95% confidence intervals). Panel A: Predicted probabilities of an invitation by names and templates used in the email request (within-group differences). Panel B: Difference in callback between majority and minority applicants (i.e., level of discrimination) by template (between-group differences). Reference = Swiss applicants.

is indicated (73.4% for low-status jobs, 74.8% for high-status jobs). Similarly, there is no substantive difference in callbacks for close minority applicants according to the type of job mentioned in the application. By contrast, there is a positive gradient in the invitation rates for distant minorities: prospective tenants with Kosovar or Turkish names have a 68.2% chance of being invited if they remain silent about their employment status, a 70.5% chance if they mention a low-status job—information beats no information, so to speak—and a 72.9% chance for those who mention a high-status job.

Another way of looking at the effect of information is to test whether the level of discrimination is lower (or absent) when comparing applicants who provided more detailed information. Panel B of Figure 1 shows the between-group differences (i.e., the level of discrimination) by the level of information provided about employment status. In line with the *disadvantage hypothesis*, discrimination against Kosovar and Turkish applicants changes from a penalty of 6.3 percentage points when no job information is provided (i.e., the difference in callback rates between majority and minority candidates with no information about employment), to a penalty of 1.9 percentage points when they mention a high-status job (i.e., the difference in callback rates between majority and minority candidates with a high-status job).

Figure 2 shows the template effect on the invitation probability, capturing the length and politeness of the request. In general, the more information and the more formal or polite the request, the higher the probability of being invited for

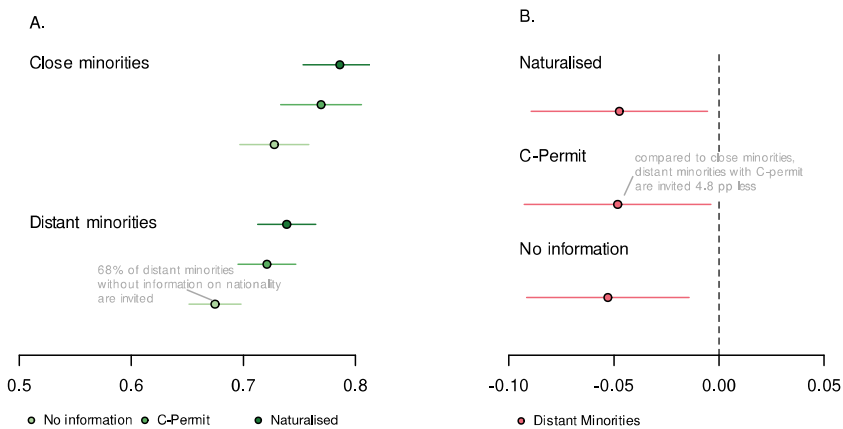


Figure 3. Probability of invitation by signal of integration, Switzerland, 2018.

Notes: OLS regression with an interaction between names and legal status. C permits are permanent residence permits (95% confidence intervals). Panel A: Predicted probabilities of an invitation by names and legal status (within-group differences). Panel B: Difference in callback between close minority and distant minority applicants (i.e., level of discrimination) by legal status (between-group differences). Reference = close minority applicants.

a viewing (Panel A). All groups have the lowest callback rate when using the default template message and the highest when using the long and formal template. The positive gradient is even more evident for distant minorities, for whom the invitation rate improves as the politeness of the message and information provided increases. We find an ambiguous effect of message length and politeness on the level of discrimination (Panel B). Close minorities appear to be better off using the default template or sending a standard message (which includes information about legal status), while there is no difference in treatment that appears for those who send a short and informal message or a long and formal message. For distant minorities, only the standard message mitigates the callback difference with Swiss candidates. As expected, providing more information (and formality) increases one's chance of being invited for a visit (Panel A), but this is the case for all groups (information hypothesis). However, contrary to expectations, minorities do not benefit more than others from this information (Panel B) (disadvantage hypothesis).

Signals of integration matter

In Figure 3, we zoom in on minority applicants to examine signals of integration. There are three categories: no information provided, a permanent residence permit (C permit, as opposed to a regular, renewable permit) and naturalisation. By mentioning a long-term residence permit in the message, applicants not only

make their foreign origin explicit, but also signal a certain level of integration in the country. The results show a 4 percentage point increase in the probability of receiving a positive response between close minority applicants who remained silent about their legal status and those who mentioned having a long-term residence permit (Panel A). The positive effect of indicating a long-term residence permit for close minorities is almost symmetrical for distant minorities: about a 4 percentage point increase between the sample of emails with no information and the sample of emails with residence permit information. The effect of Swiss nationality is somewhat more pronounced, with a 6 percentage point increase observed for both close and distant minorities. Once again, the *information hypothesis* is well supported, demonstrating a positive gradient of legal status on the probability of being invited for a visit. The extent of discrimination (Panel B) as expressed in terms of mean differences in the positive response between close minority and distant minority applicants is constant across categories of information about legal status (around 5% difference). This implies that while providing information about a more stable legal status (or level of integration) increases the likelihood of being invited for an on-site visit, differences in treatment between minority groups remain.

Discussion and conclusion

Based on a nationwide correspondence test in the Swiss rental housing market, our first contribution is to show that discrimination against apartment seekers with foreign names also exists in Switzerland. This paper provides a detailed assessment of discrimination mechanisms in the housing market by varying both the amount and the kind of information included (employment, legal status). Moreover, we differentiate between minority groups: while most previous studies focus on only one or two particularly problematised immigrant groups (e.g., Turkish background in Germany), we include immigrant groups that (1) correspond to different immigration waves and (2) differ in terms of their social distance to the Swiss majority population. This distance also becomes apparent in the differences in invitation rates: while candidates with names from the neighbouring countries (Germany, France, Italy) are actually 0.8–2 percentage points more likely to be invited to view an apartment compared with their Swiss counterparts, those with distant minority names (Kosovar or Turkish) are less likely to be invited compared with native Swiss apartment seekers (–3.5 percentage points).

Following the logic of the statistical discrimination theory, we vary the information provided to ‘enhance’ an applicant’s profile. While the meta-analyses by Auspurg, Schneck and Hinz (2019) and Flage (2018) overall show a positive

effect of added information—although in the latter it does not close the invitation gap—existing studies typically do not vary the information treatment in their experimental design (such as the length/tone of the message, employment information or residency status/naturalisation information). Our findings (for distant minorities) resonate with other studies in that highly qualified individuals are preferred (e.g., Auspurg, Schneck and Hinz, 2019). Varying the default message and adding a polite and more informative text already has great potential to increase an individual's chance of being invited to view the apartment: adding more information and quality signals increases the likelihood of receiving a positive response.

Looking at the content of the information provided, we find that mentioning even a low-status job increases the probability of an invitation for distant minorities. This may indicate the presence of negative stereotypes about creditworthiness, possibly an association with unskilled manual labour. By contrast, mentioning a low-status job has an ambiguous or negative effect for majority applicants. Put differently, the results are consistent with different expectations of the status of majority and minority workers, but this can be overcome by providing explicit information to the contrary. While majority applicants are penalised for reporting a lower status job, for minority applicants, reporting a lower status job signals that they have stable employment. In future research, it would be instructive to look at this intersection of ethnic background and socio-economic status/occupational prestige either from a social psychology perspective (e.g., related to competence signals in line with the stereotype content model; e.g., Fiske *et al.*, 2002) or from a sociological perspective (e.g., in line with status characteristics theory; e.g., Ridgeway, 2014).

We also contribute to the literature on citizenship premiums. The positive effect of naturalisation—the citizenship premium—has been well-established in other contexts, such as regarding earnings in the labour market, yet little research exists on the housing market. Unlike the two studies on the Dutch housing market that showed a positive effect of citizenship (Peters, 2020; Leclerc, Vink and Schmeets, 2022), our findings are less clear. Naturalisation increases invitation rates for both close and distant minorities, yet when we look at the results by legal status, we see that distant minorities have the same lower callback rates compared with close minorities regardless of their residence status. The fact that naturalisation does not reduce the gap in callbacks for an apartment viewing indicates that discrimination against candidates with Kosovar or Turkish names is due to their foreign name *per se*, and not related to their residence status (similar trends regarding the ethnic name *per se* were found by Carlsson [2010] in the Swedish labour market, when comparing first- and second-generation immigrants). Thus, we do not find a systematic citizenship premium when it

comes to being invited to view apartments in Switzerland. These results are consistent with taste-based discrimination theory and a distaste for foreign-named candidates. Furthermore, these results point towards ethnic hierarchies in the Swiss housing market, with more distant minorities being more disadvantaged in their search for accommodation.

The heterogeneity in callback probabilities suggests that proprietors do not follow a binary distinction between ‘natives’ and ‘immigrants’, but rather a more fine-grained reflection of group-specific cultural or ethnic ‘distance’ from the host society (see for instance Fossett, 2006; Hagendoorn, 1995). This is consistent with previous studies, for example, on discrimination in the labour market, which also show higher levels of discrimination against more distant ‘immigrant’ groups, with applicants with Kosovar origin experiencing the highest levels of discrimination (Zschirnt, 2020). The comparatively small differences in invitation probability might be attributed to the fact that even the distant minorities included in this study are well-established in Switzerland.

Next to these more empirical findings, we also contribute to the ongoing theoretical discussion about whether discrimination is taste-based or statistical. At first glance, our findings seem to support accounts of statistical discrimination theory: adding information increases the likelihood of being invited for an apartment viewing, be it information on social integration (length and politeness of inquiries; information on residence status) or on economic integration (information about occupation). While this overall increase in invitation rates is in line with statistical discrimination theory, we also observe that invitation rates increase irrespective of whether the apartment seeker is native Swiss or a close or a distant ethnic minority candidate. However, according to statistical discrimination theory, the added information should be systematically more beneficial for minority candidates, something we observe only for individuals with a Kosovar and Turkish background when they provide additional information about their employment status and particularly if they have high-status jobs. For all other information treatments, our results are inconsistent with statistical discrimination theory as a mechanism of discrimination as the gap between different candidates remains quite stable, albeit at overall higher invitation rates, which could be an indication for taste-based discrimination being complementary to statistical discrimination. This also relates to previous research such as the work by Tilcsik (2021) or Fibbi *et al.* (2019), who show that explanations of statistical discrimination in fact often draw on information that relies heavily on stereotypes. We therefore propose to treat statistical and taste-based discrimination less as either/or mechanisms, but rather to recognise the interplay between the two, as they may be difficult to distinguish in reality.

While this experiment was designed to study the effect of information treatments and to contribute to the theoretical debate about taste-based versus statistical discrimination, we acknowledge that there are many other possible mechanisms that could be at play here beyond the two economic theories we discuss. As Lippens *et al.* (2022) discuss in their review on labour market discrimination studies, it would be valuable to also focus more on sociological and social psychological theories—such as social identity theory, ethnic hierarchies or stereotype contents. While our differentiation between close and distant minorities offers some possibility to look into notions of cultural or social distance from the native Swiss population, we included only minority groups that are well-established in the Swiss context. In a future study it would therefore be interesting to include also more recent and less familiar immigrant groups or even recent refugees, as Weichselbaumer and Riess (2024) have recently done in their study on the Austrian rental housing market. The situation of Ukrainian refugees seeking an apartment may also be instructive.

While we could provide new insights on the nature of discrimination, future research should address some of the limitations that remain. Our experiment varied *no information* versus *positive information* (e.g., on employment or citizenship status). Recent research by Weichselbaumer and Riess (2024) looking at immigrant generation in the Austrian housing market shows that a positive signal (being born and raised in Austria) does not change the invitation rates of established minorities, but that including a negative signal (being born or raised abroad) comes with a penalty. It would therefore be valuable to test the effect of both positive and negative signals compared with no information in future experiments. Furthermore, since the invitation to an apartment viewing is a comparatively low-cost decision for proprietors, we envisage serious efforts to move beyond the first stage of invitations to view apartments, be this through audit studies, vignette experiments or qualitative work. It is at the second stage, when proprietors choose people for the rental agreement, that decisions become costly for proprietors. Because the information on application forms is not vastly more detailed than what we provided in the field experiment, we can expect levels of discrimination to be higher in the second step when it comes to securing an apartment.¹² For the labour market, Quillian, Lee and Oliver (2018) showed that levels of racial discrimination in the US were higher at the second stage when job offers were made compared with callbacks for an interview. Significant efforts in research design are needed to take (experimental) research on discrimination beyond the realm of formal markets. Even in the

¹² In the Swiss housing market, rents are not normally negotiated, but such negotiations may also be subject to discrimination where they exist: proprietors may demand higher securities.

formal housing market, some apartments advertise collective viewings and do not require an invitation. For a better understanding of discrimination, a broader understanding of market transactions is needed. To achieve this, future research may look beyond historically disadvantaged groups, to better understand what kind of information is helpful for which kind of minority group in particular and whether this varies given the economic context in which a transaction takes place (e.g., in the case of housing markets the overall demand and supply of rental properties and/or the rental prices). In this sense, we see work on ethnic discrimination moving beyond simple questions on ‘added positive information’ to fully explore heterogeneity in the kind of information and how effects may depend on existing stereotypes and expectations.

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AI use disclosure

No AI has been used in the writing of this paper.

Author contributions

Julie Lacroix, Eva Zschornt and Didier Ruedin designed the study; Julie Lacroix did the statistical analysis; Eva Zschornt, Julie Lacroix and Didier Ruedin wrote the paper.

Data availability

Data are available at <https://osf.io/n974z/>

Declaration of interest statement

The authors report that there are no competing interests to declare.

Ethical approval

The research design of a correspondence test has received ethical approval from the National Centre of Competence in Research *NCCR—on the move* at the University of Neuchâtel.

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Supplements

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References

- Acolin, A., Bostic, R. and Painter, G. (2016) ‘A field study of rental market discrimination across origins in France’, *Journal of Urban Economics*, 95, pp. 49–63. Available at: <https://doi.org/10.1016/j.jue.2016.07.003>
- Aeberli, M., Salvisberg, E. and Probst, J. (2021) *Zusammenleben in der Schweiz: vertiefte analyse der ergebnisse 2016–2020*. Bundesamt für Statistik. Available at: <https://www.bfs.admin.ch/asset/de/19305348>
- Ahmed, A. M., Andersson, L. and Hammarstedt, M. (2010) ‘Can discrimination in the housing market be reduced by increasing the information about the applicants?’, *Land Economics*, 86(1), pp. 79–90. Available at: <https://doi.org/10.3368/le.86.1.79>
- Aigner, D. J. and Cain, G. G. (1977) ‘Statistical theories of discrimination in labor markets’, *ILR Review*, 30(2), pp. 175–187. Available at: <https://doi.org/10.1177/001979397703000204>
- Arrow, K. J. (1973) ‘The theory of discrimination’, in Ashenfelter, O. and Rees, A. (eds.) *Discrimination in labor markets*. Princeton, NJ: Princeton University Press, pp. 15–42.
- Arrow, K. J. (1998) ‘What has economics to say about racial discrimination?’, *Journal of Economic Perspectives*, 12(2), pp. 91–100. Available at: <https://doi.org/10.1257/jep.12.2.91>
- Auspurg, K., Hinz, T. and Schmid, L. (2017) ‘Contexts and conditions of ethnic discrimination: evidence from a field experiment in a German housing market’, *Journal of Housing Economics*, 35, pp. 26–36. Available at: <https://doi.org/10.1016/j.jhe.2017.01.003>
- Auspurg, K., Schneck, A. and Hinz, T. (2019) ‘Closed doors everywhere? A meta-analysis of field experiments on ethnic discrimination in rental housing markets’, *Journal of Ethnic and Migration Studies*, 45(1), pp. 95–114. Available at: <https://doi.org/10.1080/1369183X.2018.1489223>
- Baldini, M. and Federici, M. (2011) ‘Ethnic discrimination in the Italian rental housing market’, *Journal of Housing Economics*, 20(1), pp. 1–14. Available at: <https://doi.org/10.1016/j.jhe.2011.02.003>
- Becker, G. S. (1957) *The economics of discrimination*. Chicago: University of Chicago Press.
- Bertrand, M. and Duflo, E. (2017) ‘Field experiments on discrimination’, in Banerjee, A. V. and Duflo, E. (eds.) *Handbook of economic field experiments*. Amsterdam/Oxford: Elsevier, vol. 1, pp. 309–393.
- Blank, R. M. (2005) ‘Tracing the economic impact of cumulative discrimination’, *American Economic Review*, 95(2), pp. 99–103. Available at: <https://doi.org/10.1257/000282805774670545>

- Bonnet, F. and Pollard, J. (2021) 'Tenant selection in the private rental sector of Paris and Geneva', *Housing Studies*, 36(9), pp. 1427–1445. Available at: <https://doi.org/10.1080/02673037.2020.1769565>
- Bosch, M., Carnero, M. A. and Farre, L. (2010) 'Information and discrimination in the rental housing market: evidence from a field experiment', *Regional Science and Urban Economics*, 40(1), pp. 11–19. Available at: <https://doi.org/10.1016/j.regsciurbeco.2009.11.001>
- Bundesamt für Statistik (2021) 'Ständige wohnbevölkerung ab 15 jahren mit migrationshintergrund, nach generationenstatus, staatsangehörigkeit und geschlecht, 2012–2020, tabelle'. Available at: <https://www.bfs.admin.ch/asset/de/19584463> (Accessed 7 September 2022).
- Bundesamt für Statistik (2022) 'Privathaushalte nach nationalität der haushaltsmitglieder und bewohnertyp, nach grossregionen, 2012–2020, tabelle'. Available at: <https://www.bfs.admin.ch/asset/de/20784907> (Accessed 7 September 2022).
- Bundesamt für Statistik und Bundesamt für Sozialversicherungen (2015) *Wohnversorgung in der Schweiz: bestandsaufnahme über haushalte von menschen in armut und in prekären lebenslagen*, no. 15/15. Bern: Bundesamt für Sozialversicherungen.
- Carlsson, M. (2010) 'Experimental evidence of discrimination in the hiring of first- and second-generation immigrants', *Labour*, 24(3), pp. 263–278. Available at: <https://doi.org/10.1111/j.1467-9914.2010.00482.x>
- Choi, S. J., Ondrich, J. and Yinger, J. (2008) 'Changes in rental housing discrimination since 1989', *Cityscape*, 10(2), pp. 301–330.
- Darity, W. A. and Mason, P. L. (1998) 'Evidence on discrimination in employment: codes of color, codes of gender', *Journal of Economic Perspectives*, 12(2), pp. 63–90. Available at: <https://doi.org/10.1257/jep.12.2.63>
- Dymski, G. A. (2006) 'Discrimination in the credit and housing markets: findings and challenges', in Rogers, W. M. (ed.) *Handbook on the economics of discrimination*. Cheltenham, UK: Edward Elgar Publishing, pp. 215–259.
- Efionayi-Mäder, D. and Ruedin, D. (2017) *Etat des lieux du racisme anti-Noir-e en Suisse*. Neuchâtel: SFM University of Neuchâtel.
- Emeriau, M. (2023) 'Learning to be unbiased: evidence from the French Asylum Office', *American Journal of Political Science*, 67(4), pp. 1117–1133. Available at: <https://doi.org/10.1111/ajps.12720>
- England, P. and Lewin, P. (1989) 'Economic and sociological views of discrimination in labor markets: persistence or demise?', *Sociological Spectrum*, 9(3), pp. 239–257. Available at: <https://doi.org/10.1080/02732173.1989.9981888>
- Ewens, M., Tomlin, B. and Wang, L. C. (2014) 'Statistical discrimination or prejudice? A large sample field experiment', *Review of Economics and Statistics*, 96(1), pp. 119–134. Available at: https://doi.org/10.1162/REST_a_00365
- Fibbi, R. et al. (2019) *Discrimination des personnes hautement qualifiées issues de la migration dans le domaine social?* SFM Studies 72. Neuchâtel: University of Neuchâtel.
- Fibbi, R., Midtbøen, A. H. and Simon, P. (2021) 'Combating discrimination', in *Migration and discrimination*. IMISCOE Research Series. Cham: Springer, pp. 79–91.
- Fiske, S. T. et al. (2002) 'A model of (often mixed) stereotype content: competence and warmth respectively follow from perceived status and competition', *Journal of Personality and Social Psychology*, 82(6), pp. 878–902. Available at: <https://doi.org/10.1037/0022-3514.82.6.878>
- Flage, A. (2018) 'Ethnic and gender discrimination in the rental housing market: evidence from a meta-analysis of correspondence tests, 2006–2017', *Journal of Housing Economics*, 41, pp. 251–273. Available at: <https://doi.org/10.1016/j.jhe.2018.07.003>

- Fossati, F., Liechti, F. and Auer, D. (2020) 'Can signaling assimilation mitigate hiring discrimination? Evidence from a survey experiment', *Research in Social Stratification and Mobility*, 65, 100462. Available at: <https://doi.org/10.1016/j.rssm.2019.100462>
- Fossati, F., Wilson, A. and Bonoli, G. (2020) 'What signals do employers use when hiring? Evidence from a survey experiment in the apprenticeship market', *European Sociological Review*, 36(5), pp. 760–779. Available at: <https://doi.org/10.1093/esr/jcaa020>
- Fossett, M. (2006) 'Ethnic preferences, social distance dynamics, and residential segregation: theoretical explorations using simulation analysis', *Journal of Mathematical Sociology*, 30(3–4), pp. 185–273. Available at: <https://doi.org/10.1080/00222500500544052>
- Gaddis, S. M. (2017) 'How black are Lakisha and Jamal? Racial perceptions from names used in correspondence audit studies', *Sociological Science*, 4, pp. 469–489. Available at: <https://doi.org/10.15195/v4.a19>
- Gaddis, S. M. (ed.) (2018) *Audit studies: behind the scenes with theory, method, and nuance*. New York: Springer. Available at: <https://doi.org/10.1007/978-3-319-71153-9>
- Hagendoorn, L. (1995) 'Intergroup biases in multiple group systems: the perception of ethnic hierarchies', *European Review of Social Psychology*, 6(1), pp. 199–228. Available at: <https://doi.org/10.1080/14792779443000058>
- Hainmueller, J. and Hangartner, D. (2013) 'Who gets a Swiss passport? A natural experiment in immigrant discrimination', *American Political Science Review*, 107(1), pp. 159–187. Available at: <http://dx.doi.org/10.1017/S0003055412000494>
- Hainmueller, J., Hangartner, D. and Pietrantuono, G. (2017) 'Catalyst or crown: does naturalization promote the long-term social integration of immigrants?', *American Political Science Review*, 111(2), pp. 256–276. Available at: <https://doi.org/10.1017/S0003055416000745>
- Hanson, A., Hawley, Z. and Taylor, A. (2011) 'Subtle discrimination in the rental housing market: evidence from e-mail correspondence with landlords', *Journal of Housing Economics*, 20(4), pp. 276–284. Available at: <https://doi.org/10.1016/j.jhe.2011.09.003>
- Heath, A. F. and Di Stasio, V. (2019) 'Racial discrimination in Britain, 1969–2017: a meta-analysis of field experiments on racial discrimination in the British labour market', *British Journal of Sociology*, 70(5), pp. 1774–1798. Available at: <https://doi.org/10.1111/1468-4446.12676>
- Heckman, J. J. (1998) 'Detecting discrimination', *Journal of Economic Perspectives*, 12(2), pp. 101–116. Available at: <https://doi.org/10.1257/jep.12.2.101>
- Heye, C., Fuchs, S. and Blarer, D. (2017) *Wohnsituation von Personen mit Asylhintergrund. Zustand und Herausforderungen in der Schweiz. Bundesamt für Wohnungswesen*. Available at: <https://sotomo.ch/site/projekte/wohnsituation-von-personen-mitaslyhintergrund-zustand-und-herausforderungen-in-der-schweiz/>
- Jann, B. (2014) *Diskriminierung auf dem wohnungsmarkt: untersuchungsergebnisse und empfehlungen*. Report by 'Voice of Elected Migrants for All' in collaboration with NCBI Switzerland.
- Lacroix, J., Ruedin, D. and Zschirnt, E. (2023) 'Discrimination driven by variation in social and economic conservatism: evidence from a nationwide field experiment', *European Sociological Review*, 39(3), pp. 464–478. Available at: <https://doi.org/10.1093/esr/jcac051>
- Leclerc, C., Vink, M. and Schmeets, H. (2022) 'Citizenship acquisition and spatial stratification: analysing immigrant residential mobility in the Netherlands', *Urban Studies*, 59(7), pp. 1406–1423. Available at: <https://doi.org/10.1177/00420980211006030>
- Lippens, L. et al. (2022) 'Is labour market discrimination against ethnic minorities better explained by taste or statistics? A systematic review of the empirical evidence', *Journal of Ethnic and Migration Studies*, 48(17), pp. 4243–4276. Available at: <https://doi.org/10.1080/1369183X.2022.2050191>

- Lippens, L., Vermeiren, S. and Baert, S. (2023) 'The state of hiring discrimination: a meta-analysis of (almost) all recent correspondence experiments', *European Economic Review*, 151, 104315. Available at: <https://doi.org/10.1016/j.eurocorev.2022.104315>
- Martiniello, B., Auer, D. and Ruedin, D. (2024) 'Explaining discrimination'. *SocArXiv*. Available at: <https://doi.org/10.31235/osf.io/d8apf>
- Mugglin, L. et al. (2022) *Grundlagenstudie zu strukturellem Rassismus in der Schweiz*. SFM Studies 81. Neuchâtel: Swiss Forum for Migration and Population Studies.
- Mühlemann, D., Naguib, T. and Piskoty, R. (2017) 'Racial profiling: struktureller Rassismus', *Pläydoyer*. Available at: <https://www.plaedoyer.ch/artikel/artikeldetail/racial-profiling-struktureller-rassismus/>
- Office Fédéral du Logement (2016) *Aperçu du marché du logement*. Granges: Office Fédéral du Logement.
- Oh, S.J. and Yinger, J. (2015) 'What have we learned from paired testing in housing markets?', *Cityscape*, 17(3), pp. 15–60.
- Pager, D. (2016) 'Are firms that discriminate more likely to go out of business?', *Sociological Science*, 3, pp. 849–859. Available at: <https://doi.org/10.15195/v3.a36>
- Peters, F. (2020) 'Naturalization and the transition to homeownership: an analysis of signalling in the Dutch housing market', *Housing Studies*, 35(7), pp. 1239–1268. Available at: <https://doi.org/10.1080/02673037.2019.1654601>
- Peters, F., Vink, M. and Schmeets, H. (2018) 'Anticipating the citizenship premium: before and after effects of immigrant naturalisation on employment', *Journal of Ethnic and Migration Studies*, 44(7), pp. 1051–1080. Available at: <https://doi.org/10.1080/1369183X.2017.1367650>
- Phelps, E. S. (1972) 'The statistical theory of racism and sexism', *American Economic Review*, 62(4), pp. 659–661.
- Piopiunik, M. et al. (2020) 'Skills, signals, and employability: an experimental investigation', *European Economic Review*, 123, 103374. Available at: <https://doi.org/10.1016/j.eurocorev.2020.103374>
- Portmann, L. and Stojanović, N. (2019) 'Electoral discrimination against immigrant-origin candidates', *Political Behavior*, 41, pp. 105–134. Available at: <https://doi.org/10.1007/s11109-017-9440-6>
- Quillian, L. (2006) 'New approaches to understanding racial prejudice and discrimination', *Annual Review of Sociology*, 32, pp. 299–328. Available at: <https://doi.org/10.1146/annurev.soc.32.061604.123132>
- Quillian, L., Lee, J. J. and Honoré, B. (2020) 'Racial discrimination in the US housing and mortgage lending markets: a quantitative review of trends, 1976–2016', *Race and Social Problems*, 12(1), pp. 13–28. Available at: <https://doi.org/10.1007/s12552-019-09276-x>
- Quillian, L., Lee, J., and Oliver, M. (2018) 'Meta-analysis of field experiments shows significantly more racial discrimination in job offers than in callbacks'. Working paper. Institute for Policy Research, Northwestern University. Available at: <https://www.ipr.northwestern.edu/our-work/working-papers/2018/wp-18-28.html>
- Quillian, L. et al. (2017) 'Meta-analysis of field experiments shows no change in racial discrimination in hiring over time', *Proceedings of the National Academy of Sciences*, 114(41), pp. 10870–10875. Available at: <https://doi.org/10.1073/pnas.1706255114>
- Ridgeway, C. L. (2014) 'Why status matters for inequality', *American Sociological Review*, 79(1), pp. 1–16. Available at: <https://doi.org/10.1177/0003122413515997>
- Ruedin, D., Alberti, C. and D'Amato, G. (2015) 'Immigration and integration policy in Switzerland, 1848 to 2014', *Swiss Political Science Review*, 21(1), pp. 5–22. Available at: <https://doi.org/10.1111/spsr.12144>
- Sawert, T. (2020) 'Understanding the mechanisms of ethnic discrimination: a field experiment on discrimination against Turks, Syrians and Americans in the Berlin shared

- housing market', *Journal of Ethnic and Migration Studies*, 46(19), pp. 3937–3954. Available at: <https://doi.org/10.1080/1369183X.2019.1577727>
- Schaeffer, M., Höhne, J. and Teney, C. (2016) 'Income advantages of poorly qualified immigrant minorities: why school dropouts of Turkish origin earn more in Germany', *European Sociological Review*, 32(1), pp. 93–107. Available at: <https://doi.org/10.1093/esr/jcv091>
- Sen, M. and Wasow, O. (2016) 'Race as a bundle of sticks: designs that estimate effects of seemingly immutable characteristics', *Annual Review of Political Science*, 19, pp. 499–522. Available at: <https://doi.org/10.1146/annurev-polisci-032015-010015>
- Shin, R. Q. et al. (2016) 'Is Allison more likely than Lakisha to receive a callback from counseling professionals? A racism audit study', *The Counseling Psychologist*, 44(8), pp. 1187–1211. Available at: <https://doi.org/10.1177/0011000016668814>
- Sowell, T. (2018) *Discrimination and disparities*. New York: Basic Books.
- Steinhardt, M. F. (2012) 'Does citizenship matter? The economic impact of naturalizations in Germany', *Labour Economics*, 19(6), pp. 813–823. Available at: <https://doi.org/10.1016/j.labeco.2012.09.001>
- Tilcsik, A. (2021) 'Statistical discrimination and the rationalization of stereotypes', *American Sociological Review*, 86(1), pp. 93–122. Available at: <https://doi.org/10.1177/0003122420969399>
- Verstraete, J. and Verhaeghe, P.-P. (2020) 'Ethnic discrimination upon request? Real estate agents' strategies for discriminatory questions of clients', *Journal of Housing and the Built Environment*, 35(3), pp. 703–721. Available at: <https://doi.org/10.1007/s10901-019-09721-8>
- Weichselbaumer, D. and Riess, H. (2024) 'Discrimination in the Austrian rental housing market: the effect of information concerning first and second-generation immigrant status', *Journal of Housing Economics*, 66, 102030. Available at: <https://doi.org/10.1016/j.jhe.2024.102030>
- Zhao, B., Ondrich, J. and Yinger, J. (2006) 'Why do real estate brokers continue to discriminate? Evidence from the 2000 Housing Discrimination Study', *Journal of Urban Economics*, 59(3), pp. 394–419. Available at: <https://doi.org/10.1016/j.jue.2005.12.001>
- Zschirnt, E. (2019a) 'Equal outcomes, but different treatment – subtle discrimination in email responses from a correspondence test in Switzerland', *Swiss Journal of Sociology*, 45(2), pp. 143–160. Available at: <https://doi.org/10.2478/sjs-2019-0007>
- Zschirnt, E. (2019b) 'Research ethics in correspondence testing: an update', *Research Ethics*, 15(2), pp. 1–21. Available at: <https://doi.org/10.1177/1747016118820497>
- Zschirnt, E. (2020) 'Evidence of hiring discrimination against the second generation: results from a correspondence test in the Swiss labour market', *Journal of International Migration and Integration*, 21(2), pp. 563–585. Available at: <https://doi.org/10.1007/s12134-019-00664-1>
- 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), pp. 1115–1134. Available at: <https://doi.org/10.1080/1369183X.2015.1133279>