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No evidence for ethnic discrimination in the nonprofit sector: *an audit study of access to nursing homes*

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ABSTRACT

Discrimination curtails equal opportunities of minority groups to participate in society. Although various studies reveal discrimination in access to human services, studies of nonprofit organizations are rare. This is surprising because nonprofits are essential providers of public services in many countries. We expect institutional features of the nonprofit sector to curb discrimination in access to public services, including nonprofit's social mission and financial non-distribution constraint. We implemented an audit study within long-term care facilities for older people (i.e., nursing homes) in Flanders (Belgium). We sent a request for admission information signed by either a Moroccan or a Belgian-sounding name to all Flemish nonprofit nursing homes, finding no evidence of discrimination in responses to our request. The absence of a profit motive, combined with a stronger sense of social mission, may account for the absence of ethnic discrimination in the nonprofit sector.

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Discrimination is a pervasive problem in many societies. A steady stream of research has provided evidence of discrimination against minority groups seeking access to resources such as human services, housing, consumer goods, or jobs. Besides ethnicity or race, many other grounds of discrimination have been identified, including age, gender, religion, disability, employment status, sexual orientation, obesity, looks, or criminal background. (e.g., Bertrand and Duflo 2016; Neumark and Rich 2016). The impact of discrimination is high. Besides the psychological effect on individuals, discrimination can lead to a misallocation of resources, reduced levels of mutual understanding, and ultimately an alienation of groups in society (Pande 2003; Saunders 2011).

Discrimination studies have been performed in many different domains. In employment and housing markets alone, over 80 field experiments have been conducted between 2000 and 2016, most of them uncovering discriminatory practices (Neumark and Rich 2016). For example, in the labor market, white job applicants receive on average 36% more callbacks than similar African American applicants and 24% more than Latin American applicants. As a meta-analysis indicates, there have been no meaningful changes in discriminatory practices over time (Quillian et al. 2017). Other studies have been conducted in amongst others, the criminal justice system (Kang et al. 2011), academia (Milkman, Akinola, and Chugh 2015), mortgage markets (Bayer, Ferreira, and Ross 2014), or retail (Zussman 2013).

In recent years, several field experiments on discrimination in the public sector have emerged. The results are inconclusive. Guul, Villadsen, and Wulff (2019) showed that minority applications to job openings in Danish public schools generally face lower callback rates. Pfaff et al. (2021),

studying religious discrimination, found evidence of substantial discrimination against Muslims and atheists. Giulietti, Tonin, and Vlassopoulos (2019) sent requests for information to local public services in the US and found that putatively black senders are about 4 percentage points less likely to receive an answer compared to emails signed with a white-sounding name. In other studies, the discrimination is more covert. Olsen, Kyhse-Andersen, and Moynihan (2020) sent requests to move a child to a primary school, using Danish and Muslim sounding names. While the response rate was similar for both groups, Muslim applicants were facing more additional information requests that increased administrative burdens. This finding is in line with Hemker and Rink (2017) who studied German welfare offices and found that although callback rates did not vary across treatment conditions, putative non-Germans receive responses of significantly lower quality, potentially deterring them from applying for benefits. Other studies find very limited or no evidence of discrimination. Oberfield and Incantalupo (2021) found limited evidence of discrimination against putative black students in district schools in the US. Taghizadeh (2021) found few robust effects of sending student requests with Swedish and Arabic sounding names to Swedish school principals. Grohs, Adam, and Knill (2016) found very limited discrimination effects in a field experiment with local officials in Germany.

Not many field studies, however, have focused on discriminatory practices within nonprofit organizations. Oberfield and Incantalupo (2021) is an exception. This study compared anti-Black and ability discrimination in public schools and charter schools. They found evidence of discrimination overall, but charter schools did not exacerbate anti-Black discrimination. Beyond this study, to our knowledge, not much nonprofit research has been conducted. This lacuna in research should concern both the fields of nonprofit studies and public administration. In many countries nonprofits play essential roles in public service delivery. Public and nonprofit sectors become increasingly intertwined in arrangements of co-governance (Cheng 2019). The implications of cross-sector provision of public services for fundamental public values such as equity are still understudied.

This article assesses whether nonprofit organizations discriminate against prospective minority clients who seek information on accessing nursing homes. The theoretical expectations for nonprofit discrimination are not straightforward. Based on the evidence from other sectors in society, we expect to find discrimination. Yet, we have theoretical reasons to expect that discrimination in access to public services offered by nonprofit organizations does not play out as strongly as compared to the private, for-profit sector. The social value orientation of nonprofits including their non-distribution constraint would work against discrimination or cream-skimming of prospective clients (Hansmann 1980; Weisbrod 1988; Guul, Hvidman, and Sievertsen 2021). However, compared to public organizations, political and administrative accountability may be weaker. And although profits cannot be distributed to shareholders, nonprofits can retain surpluses more easily within the organization than public organizations can. In absence of inconclusive theoretical expectations, we test both for the presence and absence of discrimination by making use of t-tests and Bayes factors.

The article is organized as follows. We first discuss two core theories of discrimination, statistical and taste-based discrimination, and discuss evidence for discrimination in the nonprofit sector. Next, we elaborate on the design of the audit study as well as our analytical strategy. Then, we present the results, including a discussion of the strength of our evidence for the absence of discrimination. Finally, we discuss the implications of our findings for nonprofit research and theory.

Theories of discrimination

Discrimination occurs when members of a minority group are treated differently (and less favorably) than members of a majority group with otherwise identical characteristics in similar

circumstances (Bertrand and Duflo 2016). The discrimination literature typically discusses two primary motives that may lead to discrimination based. The theory of taste-based discrimination, derived from microeconomics, claims that discrimination is mainly based on an individual's animus against outgroups (Becker 1971). Taste-based discrimination stems from an agent's distaste for interacting with members of a particular group, even if avoiding interaction with them bears some costs. In other words, because people do not like members of a specific group, they just avoid them and treat them differently.

Theories of statistical discrimination, in contrast, assume that discrimination is not a hostile response to differences but a product of rational-strategic considerations based on aggregate group characteristics (Altonji and Pierret 2001; Phelps 1972). An example is an employer who tries to assess a job applicant's motivation and future productivity (Neumark and Rich 2016). Because this type of information is not directly available in the early stages of the application process, employers use imperfect signals of productivity from the applicant's curriculum vitae (CV) instead. Average group statistics of the applicant's demographic group are such imperfect signals, and employers impute these assumed statistical averages in assessing the applicant's CV. Instances of imperfect signals of an applicant's future productivity may include gender, race, ethnicity, age, place of residence, or criminal history. The employer subsequently uses this aggregate-level group information as a stereotype against individual applicants.

One of the fuzziest aspects of statistical discrimination is an agent's statistical knowledge about group characteristics. Here it is commonly assumed that discriminators have accurate knowledge of statistically accurate distributions of group disparities. However, such knowledge can be inaccurate and thus lead to "inaccurate statistical discrimination" (Bohren et al. 2019). In this context, beliefs about group characteristics can be imputed through the process of social categorization – placing other people in social groups based on their observable characteristics (Allport 1954; Tajfel 2010). This process of social categorization entails that stereotypes about a certain socio-demographic group are used to socially categorize individual group members. Group stereotypes therefore represent distortions to accurate statistical beliefs about group differences (Bordalo et al. 2016), and therefore bias the "data generation process" of discriminators. However, the behavioral process of statistical discrimination remains that same, what changes is its micro-foundation.

Closely related to statistical discrimination is the notion of cream-skimming. Here, social service providers try to either select clients they believe will perform well according to some bureaucratic success criteria or avoid clients they perceive to be harder-to-serve and therefore costly (Ellis 1998; Koning and Heinrich 2013; Grand and Bartlett 1993; Lipsky 1980). However, like in employment decisions, direct information about future productivity, or costliness, is often unavailable during the first interaction with a prospective client. Moreover, such information may be more difficult to acquire when providers face higher work pressures. In the absence of such direct signals, service providers may use imperfect signals, such as gender, socio-economic status, or ethnicity to make judgments about the future costliness of a particular client.

Besides a motive, there needs to be an opportunity for discrimination to occur. Systems of formal accountability are often devised to *limit* opportunities for discrimination (Mutsaers 2015). Discussion on body cameras for police officers can be seen in this light (Maskaly et al. 2017). While formal accountability mechanisms may indeed curb discrimination, several studies have found that work discretion at the frontlines of human services typically resists formal steering (Heinrich and Marschke 2010; Soss, Fording, and Schram 2011). Discretion allows frontline workers to respond to the contextual imperatives of their job (Maynard-Moody and Musheno 2000). At the same time, however, frontline discretion leaves room for discriminatory practices to unfold (Lipsky 1980).

One strategy that received substantial scholarly attention is to increase administrative burdens on applicants from minority groups (Heinrich 2016; Jilke, Van Dooren, and Rys 2018).

Administrative procedures may increase the compliance, psychological, or learning costs for minorities when trying to access social services (Herd and Moynihan 2019; Wiley and Berry 2018). Compliance costs refer to the people's experienced costs in complying with a service's formal rules and requirements. In contrast, psychological costs describe the associated stress or stigma that service users may face. Learning costs, in turn, are the costs connected with learning about a service and how to apply for it. In our study of nonprofit nursing homes, not responding to our request for admission information is a realistic option (with one-third of the contacted nursing homes not replying). A non-reply would thus increase the learning costs on applicants who would have to seek out information on accessing nursing homes through other channels. Therefore, ethnic discrimination in information provision increases administrative burdens in access to nursing homes.

Discrimination in the nonprofit sector

The previous section has discussed how ethnic discrimination in access to human services can occur. Yet, the institutional environment is distinct in the nonprofit sector. Here lies the relevance of studying discrimination in access to public services provided by nonprofits. We argue that the behavioral norms and institutional logics within the nonprofit sector may curb discriminatory practices.

Brolis et al. (2018, p.3) points out that behavioral norms within nonprofit organizations rely on social values such as charity, fairness, and caring. Nonprofit organizations are driven by the social goals they pursue (Hansmann 1980; Weisbrod 1988). With these goals comes higher responsiveness to the people they serve. For instance, Wiley and Berry (2018) demonstrate how advocacy organizations on domestic violence absorb the administrative burdens that emerge from the complexities and competing goals of policy implementation. They call this "compassionate bureaucracy." Compassion for clients that depend on the organization's services leads nonprofits to assume the costs of dealing with red-tape and regulation. This orientation on social value, instead of profit-maximization, may lead nonprofits to be less likely to discriminate the basis of taste-based or statistical discrimination.

As discussed by Brolis et al. (2018), the behavioral norms and institutional logics within nonprofit organizations may provide an antidote against personal animus toward outgroup members (i.e., taste-based discrimination). Nonprofit human service organizations have been argued to attract a more pro-social workforce than similar private, for-profit providers (e.g., Brolis et al. 2018; De Cooman et al. 2011; Gregg et al. 2011). Altruistic employees who select into the nonprofit sector reinforce the social norms within the organization. These employees seek what Brolis et al. (2018) call a value fit with the organization. Discriminatory practice is a poor fit with the social mission of nonprofits, which would lead to prosocial motivated employees experiencing a value incongruence between them the organization they work for. Therefore, we would not expect nonprofit organizations to engage in taste-based discrimination.

Statistical discrimination may also be less likely within nonprofit service providers. However, nonprofits are not be entirely shielded from economic incentives typically found in private, for-profit markets (Weisbrod 1988). They often depend on and respond to market mechanisms such as voucher systems and tendering (Alexander, Brudney, and Yang 2010). Paarlberg et al. (2018), for instance, show how nonprofit providers in US counties operate in a competitive resource environment. Levels of competition are associated with fiscal health. When competition affects the organization's fiscal health, we can expect that economic incentives trickle down to the organization as well. Here, discrimination based on cream-skimming less costly clients (or avoiding those who will be costly) seems to be a viable option. However, the social mission of nonprofits, combined with their inability to distribute profits to shareholders (Weisbrod 1988), provides a buffer against the adverse effects of economic incentives on discrimination. In other words,

nonprofits may not cream-skim clients because employees' social mission and pro-social value orientation are more potent than the financial incentives induced by quasi-markets. Consequently, nonprofit organizations will not seek imperfect signals of future costliness (such as ethnicity) in selecting clients at the frontline, as documented in the for-profit sector (see also Jilke, Van Dooren, and Rys 2018).

This line of argument is complemented by the accountability environment in which nonprofits operate, as Brolis et al. (2018) observe. Besides their trading income, nonprofits are usually at least partially dependent on public funding and private contributions. Public funders and private donors usually expect high anti-discrimination standards from the nonprofits they support. Therefore, they operate under an accountability regime that de-incentivizes discriminatory practices.

To date, little scholarly attention has been devoted to studying discriminatory practices in access to human services provided by nonprofit organizations. Most evidence on equity issues in the nonprofit sector is found regarding staff composition (Themudo 2009; Burke and Cooper 2012). For instance, Sampson and Moore (2008) study the existence of a glass ceiling for women in the fundraising field, with a significant difference in average salary and representation in upper management (see also Gibelman 2000; Pynes 2000; Chernesky 2003). Hostetler and Pynes (2000) discuss leadership challenges for the representation of differences in sexual orientation. Empirical evidence on ethnic discrimination is limited, however. Gibelman (2000) analyzed minority groups in a study that primarily dealt with gender discrimination. She suggested that HR practices in nonprofits do discriminate against women and minorities. The study of Brolis et al. (2018) is one of the first to tackle ethnic discrimination in the nonprofit sector. They compared managerial prejudice in a service market with both nonprofit and private companies and found that managers in the nonprofit sector are less prejudiced than managers of private companies. Our study builds on this debate in the nonprofit literature by focusing on discrimination against service users rather than discrimination against staff.

In sum, the theoretical considerations outlined above lead us to expect that ethnic discrimination in access to admission information may not be particularly pronounced in the nonprofit sector. Nonprofit-related characteristics of social mission, an altruistic labor force, and the non-distribution constraint are expected to buffer against using ethnicity as an imperfect signal for a client's future costliness, as well as forms of taste-based discrimination. However, the rationale for the existence of discriminatory practices cannot be completely neglected. Therefore, we first test whether we can reject the null hypothesis suggesting that discrimination exists in the nonprofit sector, but also will apply Bayes factors to discuss the strength of evidence for the absence of discrimination. In other words, the discussion above leads us to set-up empirical tests for and against the presence of discrimination in the nonprofit sector. In the discussions section, we will then compare these findings with previously published evidence from Belgium's for-profit and public nursing home sectors.

Research context: Flemish nursing homes

We implemented an audit study in the Flemish nursing home sector. Residential care in Flanders is provided by 783 facilities with different ownership structures. The largest group has a nonprofit legal status ($n = 375$). Facilities in this category are typically run under the auspices of religious (mainly Catholic) organizations. However, the formal religious affiliation is not reflected in organizational practice: Belgium is a largely secularized country, and service providers with a catholic background recruit from all confessions, including the Muslim applicants associated with the Moroccan name we used in our study (Huysse 1984). The second largest group is nursing homes with public ownership of municipalities. The third category includes homes with private (for-profit) ownership. This study focuses on nonprofit providers only (for a separate analysis of

nursing homes in the public and private, for-profit sectors, see [omitted reference for peer-review]). The juxtaposition of the incentive structures is straightforward in the public and private sectors, which allows for comparative analysis. As we discussed above, the incentive structure is more ambiguous in the nonprofit sector, with typical nonprofit features that coincide with influences from the for-profit *and* public sectors.

The overall policy goal in Flanders is to provide universal access to affordable and high-quality care services in elderly care (Willemé et al., 2012). Residents pay accommodation costs, while the compulsory national health insurance scheme bears the medical and nursing expenses. Means-tested compensation exists for individuals who cannot pay their share. About 40% of the income of nursing homes comes from health insurance. Another 40% of facilities' revenue stems from the daily allowances that residents have to pay.

The Flemish nursing home sector is regulated by the central government (i.e., mainly the Flemish government). A central inspectorate certifies facilities before they become eligible for subsidies. The inspectorate monitors compliance with regulations as well as the quality of care. In addition, the central government calculates based on forecasts of needs how many beds each region needs. Nursing homes can apply for additional beds within those forecasted needs. Based on residents' care needs, the central government also determines the health insurance scheme's daily amount to pay facilities.

Several facets of nursing homes' operations are regulated. Yet, significant levels of autonomy remain. Nursing homes are separate legal entities that can independently make hiring decisions, borrow from financial institutions, accumulate assets, and determine daily allowances of residents. Necessary for our study is the autonomy in managing access and the waiting lists for prospective candidates. Residents are free to choose between facilities, and facilities are free to manage admissions independently. With an occupancy rate of 96% in 2014 (Socialistische Mutualiteiten 2016)¹, we can safely assume that avoiding clients that are perceived as costly is a realistic option.

Research design

In this study, we examine the discriminatory behavior of nonprofit nursing homes in Flanders by studying their responsiveness to information requests of prospective clients using an audit study design. Audit studies are field experiments that have been conducted in a large variety of different settings (Bertrand and Duflo 2016; Gaddis 2018). The basic design is to send identical information requests that differ by one attribute, namely the putative sender's race, ethnicity, or gender. Adopting this particular methodology allows us to manipulate the ethnicity of prospective clients seeking information on how to enroll in a nursing home. The discriminatory behavior of nursing homes is assessed by comparing response rates across names. Systematic differences between experimental manipulations (i.e., the ethnicity of senders) are counted as evidence for ethnic discrimination.

Treatment

We tested the effect of ethnicity in access to admission information for Flemish nursing homes². Identical information requests were sent to all nonprofit nursing homes that operate in Flanders. The treatment consisted of two hypothetical names. We used one typical Moroccan name (i.e., Mohammed El Makrini) representing the predominant ethnic minority in Flanders (i.e., Moroccans) and one typical Flemish name (i.e., Kenny Maes).

The names were selected from a pretest. Names are social identifiers of ethnicity *and* socioeconomic status (SES) (Fryer and Levitt 2004; Elchardus and Siongers 2011). For our study, we were looking for names that would signal different ethnicities but would not signal different SES. Elchardus and Siongers (2011) found in Flanders that perceived parental educational levels,

amongst others, are considerably higher for some names than for others. As a basis for selecting Flemish first names for the pretest, we used a variation of Flemish names as identified by Elchardus and Siongers (2011). Next, we chose the most popular Moroccan first names in Belgium from the Belgian national census. Given the underprivileged position of the Moroccan community in Belgium, we generally expected that Moroccan names would signal lower SES (Van den Broucke et al. 2016). The Flemish and Moroccan last names for the pretest were selected based on the most recent Belgian census (Statistics Belgium). In total, respondents evaluated ten Flemish and ten Moroccan names.

In the pretest, we used an existing online citizen panel from the political science department of the University of Antwerp. Of the 5,837 people who were asked to participate in the survey, 2,114 took part (36.2%). Each respondent was asked to assess three names based on four dimensions: education level, age, ethnicity and income level.³ To avoid answer contamination across the scale, we randomized the order of the names and the combination of the first and last names. As a result, respondents randomly received three Flemish names, three Moroccan sounding names, or a combination of the two. The Moroccan names were given lower SES assessments by survey respondents than the Flemish names, except for “Kenny Maes”. Amongst the Moroccan names, Mohamed El Makrini provided the clearest signal of ethnicity. Based on these results, we opted to use Mohamed El Makrini and Kenny Maes. These names are perceived as very similar in terms of SES but dissimilar for ethnicity. Note that Mohamed El Makrini was perceived to be older than Kenny Maes, but since the email to the nursing homes asked for a place for the father, we assume that this variation may be less relevant.

Separate audit experiments were simultaneously conducted for all nonprofit, public, and for-profit Flemish nursing homes. In this study, we report from the nonprofit experiment which include an email asking whether the facilities currently had a place available, whether they had a waiting list and how to enroll. Two new email accounts (kenny.maes100@gmail.com and mohamed.elmakrini100@gmail.com) were used to send the requests. The email itself was short to decrease the burden for employees; [Box 1](#) provides the full text.⁴ Each nursing home received only one email.

Box 1: Email Sent to Flemish Nursing homes

From: *[Randomized Treatment Name]*

To: *[Email Address of Primary Contact at Nursing Home]*

Subject: Admission information

Hello,

I am contacting you because I am looking for a place in a nursing home for my father. We are interested in your facility.

Do you have a place available at this moment? And how can I subscribe my father for this?

I also heard there is a waiting list. Do you have one, and how long is it?

Thanks,

[Randomized Treatment Name]

Population and unit of analysis

The unit of analysis for the experiment was the individual nursing home. We assume that the person replying to the mail would represent the organization for which they work. The primary contact information for the facilities was collected from public records (Agentschap Zorg and Gezondheid 2017). When nursing homes shared the same contact email address due to operating within the same umbrella organization, we randomly chose one nursing home (a total of 36

Table 1. Contingency table (Response rates).

| | | Response | | Total |
|-----------------|--------------|----------|--------|-------|
| | | Yes | No | |
| Treatment | Count | 128 | 58 | 186 |
| (Moroccan name) | % within row | 68.82% | 31.18% | 100% |
| Control | Count | 122 | 67 | 189 |
| (Flemish name) | % within row | 64.55% | 35.45% | 100% |
| Total | Count | 250 | 125 | 375 |
| | % within row | 66.67% | 33.33% | 100% |

facilities were excluded). Allocation to the experimental conditions was randomized. We sent 387 emails, of which 12 had invalid addresses (four emails sent from “Kenny” and the other eight from “Mohammed”). We limited the sample to successfully delivered emails, which left us with an analytical sample of 375 observations.

Measurement

We used two outcome measures to assess the discriminatory behavior of Flemish nursing homes: response rates and the information provided in the response. The response rate is a straightforward measure. Here we measured systematic differences between ethnic and Flemish names as evidence of ethnic discrimination.⁵ Second, we studied whether information on how to subscribe was provided in the reply. Withholding or providing incomplete information makes it more difficult for clients to access these services because of higher learning costs. We coded responses that included the requested information as “1” and those that did not respond to the inquiry as “0”. Responses were considered valid if received within two weeks after the initial request. After two weeks, no further replies were received. Several nursing homes provided us with information in attachments; for instance, one facility sent us an attached brochure that contained details concerning its enrollment procedure. These emails were coded as “1” for providing information about how to enroll.

Results

This study assesses whether evidence exists for discrimination in access to nursing homes in the Flemish nonprofit sector. Therefore, requests were sent by a putatively Moroccan sender (“Mohamed El Makrini”) and Flemish sender (“Kenny Maes”). The first outcome is whether the Moroccan alias has received fewer replies than the Flemish alias. This is not the case (see Table 1). The Moroccan-sounding name did receive slightly more responses than the Flemish alias (68.8% replies versus 64.6% replies; a difference of 4.2% points). This difference, however, is not statistically significant ($X^2(1) = 0.768$, $p = 0.381$) and yields a small effect size (Phi-coefficient of 0.045). We do not find evidence for discrimination against minority applicants and can therefore not reject the null hypothesis of no discrimination. Note that overall, about one-third of the nursing homes did not reply to the mail. Not replying seems to be a realistic option and arguably a relatively frictionless course of action for someone who would want to avoid a particular client.

Not responding to information requests is only one way of discrimination. Discriminatory practices could also follow from the content of the replies. Not providing information on how to subscribe may be a barrier for subscription with discriminatory effects. Non-repliers are also coded as not providing information (excluding them yields similar results to those presented here). Table 2 includes the results for the 375 facilities. The Moroccan alias was provided with enrollment information in 56.5% of the cases, while the Flemish alias only received information 53.4% of the time. A difference of 3.1% points which was not statistically significant ($X^2(1) =$

Table 2. Contingency table (Information provision).

| t | | Information provided | | Total |
|------------------------------|--------------|----------------------|---------|-------|
| | | Yes | No | |
| Treatment (Moroccan name) | Count | 105 | 81 | 186 |
| | % within row | 56,5% | 43,5% | 100% |
| Control (Flemish name) | Count | 101 | 88 | 189 |
| | % within row | 53,4% | 46,6% | 100% |
| Total | Count | 206 | 169,000 | 375 |
| | % within row | 54,9% | 45,1% | 100% |

0.344, $p = 0.558$). The corresponding effect size is tiny (Phi-coefficient is 0.03). Therefore, we cannot reject the null hypothesis of no discrimination in access to Belgian nonprofit nursing homes.

So far, the analysis did not allow rejecting the null hypothesis of no difference between treatment and control. Yet, we should interpret the null-finding as an absence of evidence for an effect, not as evidence of absence (Wagenmakers 2007; Wagenmakers et al. 2018). A p -value below the α threshold indicates that the observed data are unlikely under the assumption of the null hypothesis (H_0). Yet, a p -value does not make a claim on the strength of the evidence as a study may be underpowered to detect an effect. Given the theoretical discussions on discrimination in nonprofits, we do not only want to know whether we have evidence for discrimination (we have not) but also want to assess the evidence for the absence of an effect.

Several statistical approaches can provide evidence for the absence of an effect (Rouder et al. 2009; Lakens et al. 2018). Bayesian statistics are one alternative to Null Hypothesis Significance Testing (NHST) (see Gill and Witko (2013) for an introduction; Quaranta and Sani (2016) provide an application of Bayesian statistics in the nonprofit literature). Bayesian hypothesis testing builds on the Bayes factor, which quantifies how likely the observed data are under the null hypothesis (H_0) compared to the alternative hypothesis (H_1). The Bayes factor hence compares H_0 to H_1 , while conventional NHST assumes H_0 to be true and tests the probability of the data, given the assumption of H_0 .

The Bayes factor provides a measure of the strength of evidence for the absence of an effect⁶. An analysis of the contingency table of the responses (Table 1) gives a Bayes factor of 5.63 [95% Credible Intervals of log odds ratio: $-0.238, 0.621$] (JASP Team 2018). The observed data are about six times more likely to occur under the H_0 than under H_1 . Under Bayesian convention, the strength of the evidence of a Bayes factor of 5,63 is considered to be moderate.⁷ A similar result follows from an analysis of the information provision. A Bayes factor of 6,58 [95% Credible Intervals: $-0.293, 0.538$] suggests that the data we observed are 6,5 times more likely under H_0 than under H_1 . Overall, there is moderately strong evidence for the absence of discrimination, given our data.

Sectoral comparison

We conducted two separate audit studies (similar in design and timing) in the private, for-profit, and public nursing home sector in Flanders (*reference omitted for peer-review*). We compare the findings reported in this study with the public and for-profit estimates of discrimination. Since the estimates in *reference omitted for peer-review* are provided within a regression framework, we offer the sectoral comparison using the same approach. Table 3 summarizes the results reported above plus results from *reference omitted for peer-review*. In the public and nonprofit sectors, we find no evidence for ethnic discrimination across any outcome measure. However, there is evidence for discrimination concerning the information provided and perceived information completeness in the for-profit sector.

Table 3. Cross-sectoral comparison.

| | Response rates | | | Information provided | | |
|--------------|------------------|------------------|-------------------|----------------------|-------------------|---------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | Nonprofit | Public | For-profit | Nonprofit | Public | For-profit |
| Mohammed | 0.043 (0.052) | 0.032 (0.059) | -0.089 (0.091) | 0.030 (0.054) | -0.017 (0.065) | -0.196** (0.086) |
| Observations | 375 | 199 | 112 | 375 | 199 | 112 |

Standard errors in parentheses (clustered by municipality)

Models 1–6 are logistic regression models, and models 7–12 are tobit regression models.

Coefficients are marginal effects for models 1–6 and unstandardized for models 6–12.

*** $p < 0.01$, ** $p < 0.05$, + $p < 0.1$

Table 4. Pooled analysis across sectors.

| | Response rates | Information provided |
|----------------------|------------------|----------------------|
| | (1) | (2) |
| Mohammed | 0.018 (0.033) | -0.021 (0.035) |
| Sector fixed effects | YES | YES |
| Observations | 686 | 686 |

Standard errors in parentheses (clustered by municipality)

Models 1–2 are logistic regression models, and models 3–4 are tobit regression models.

Coefficients are marginal effects for models 1–2 and unstandardized for models 3–4.

*** $p < 0.01$, ** $p < 0.05$, + $p < 0.1$.

We also pooled all three sectors and estimated models for each dependent variable separately using sector fixed-effects (Table 4), leading us to conclude that there is no overall effect of discrimination across all three service sectors. These models are robust to excluding sector fixed-effects.

Discussion and conclusion

Similar to other welfare states, the Belgian government entrusts the provision of large portions of public services to the nonprofit sector. The nonprofit sector also plays an essential role in the provision of elderly care. To do so, they receive subsidies from the public sector and are regulated by public agencies. Since many citizens rely on public services provided by nonprofits, nonprofits should adhere to high standards of equal access and the absence of discrimination. Studies on discrimination in nonprofit services remain limited in number.

Our study analyzed whether there is (no) evidence for ethnic discrimination in Flemish nonprofit nursing homes. The nonprofit literature provides no clear expectation on the direction of the effect. Overall, it seems that while discriminatory practices can be present in the nonprofit sector, at the same time they could be curbed by its institutional context. We hence tested for both, the presence and the absence of discrimination. We used an audit study design in which minority and majority names were randomly assigned to information requests sent to Flanders nonprofit nursing homes, and analyzed the effect of having an ethnic minority name on response rates and information provision. We did not find evidence for discrimination. In fact, using Bayes factors, we found evidence in favor of a precise null (Lakens et al. 2018). We thus can conclude that nursing homes in the nonprofit sector in Flanders do not discriminate when responding to information requests of prospective clients with a Moroccan name. A comparison with

parallel experiments in public and private, for-profit care homes suggests that nonprofits are similar to public nursing homes in the sense that within these sectors there is no direct evidence for discriminatory practices. In the private, for-profit sector, however, there is evidence for ethnic discrimination. A pooled analysis of all three sectors finds no overall effects of discrimination.

Our results support the argument that the nonprofit sector curbs discrimination. As identified by Brolis et al. (2018), distinct characteristics of nonprofit organizations seem to be at work. We can expect behavioral norms in nonprofit nursing homes to counter discriminatory tendencies. Caring for vulnerable people is embedded in both the mission of nonprofits and the practice of social service professionals that work in nonprofit organizations. Discrimination is at odds with the social mission and professional values of care for the vulnerable. In addition, nonprofit organizations' non-distribution constraint curbs monetary incentives to avoid harder-to-serve clients.

Although nonprofits fare better than private, for-profit nursing homes, they seem to be on equal footing compared to the public sector nursing homes operated by municipalities, as shown in a previous study on discrimination in the public and for-profit nursing home market in Belgium (*reference omitted for peer-review*). Financial incentives are typically absent in the public sector. Deficits or profits in public sector nursing homes are absorbed by the public (in our case, municipal) budget. Nonprofits face stronger pressure to balance their budget since losses cannot be off-loaded onto the public budget. Similarly, profits can be retained and reinvested for the social goal of the nonprofit. Nonetheless, discrimination in responses is absent in both the public and the nonprofit sectors. The absence of a profit motive may be an underlying driver that public and nonprofit organizations have in common.

This research was designed to study whether ethnicity leads to discrimination. Yet, as theories of statistical discrimination would predict, ethnicity may also be used as a proxy for other grounds of discrimination such as poverty or unemployment. The Moroccan community in Belgium is, on average, less affluent than most other ethnicities. By selecting names with similar socio-economic status, we wanted to have the ethnicity signal as clear as possible. Yet, we cannot exclude other conditions that co-vary with ethnicity to drive discrimination. One notable factor that coincides with ethnicity is the religion of the putative sender. The Moroccan sounding name will be associated with Islam, while Belgian sounding names will be associated with Roman Catholicism. Having Muslims in the nursing homes may have consequences for the daily operations of the facilities, for instance in the provision of halal food. Yet, in our study, we find moderately strong evidence for the absence of discrimination. This is remarkable and contrasts the study of Pfaff et al. (2021) who, in a different context of US public schools, do find evidence of religion-based discrimination against Muslims.

Future studies, however, might further disentangle the different grounds of discrimination. Similarly, we only used male names and asked for a place for the father of the family. Yet, gender can be another ground for discrimination that further exacerbates the position of vulnerable groups (Gibelman 2000; Chernesky 2003; Thermudo 2009). Further studies might add female and male names. Research could also theorize and study interaction effects between grounds of discrimination, to probe the intersectionality of identities. Indeed, discrimination may weigh heavy on those individuals who must confront various bases of discrimination simultaneously. Such multi-arm audit studies would require a research context with a sufficiently high number of service providers, or, repeated contacts of the same providers.

Our findings also have important implications for social equity. One expectation is that minority clients face administrative burdens when trying to access crucial public services. In this study, we have examined whether learning costs are disproportionately increased for ethnic minorities in the nonprofit sector. Indeed, disproportionate information provision of how to apply for a spot in a nursing home can place a systematic tax on potentially vulnerable populations such as members of ethno-religious minorities. As a consequence, they will be more likely to experience administrative burdens, and hence be less likely ending up with receiving said service. Examining

this potential inequality is at the heart of our study. However, we did not find evidence of this type of social inequity in the Flemish nonprofit nursing home sector.

Our study also adds to a stream of emerging audit studies that show that discriminatory processes in service delivering bureaucracies are micro-level behaviors. The behavioral foundations of unequal treatment are a crucial part of the behavioral public administration enterprise. While we do not provide a clear mechanism test of why we observe no evidence of ethnic discrimination, we suggest that micro-level discriminatory practices are shaped by organizational level incentive structures – such as the non-distribution constraint within the nonprofit sector. In our case, the institutional set-up of the nonprofit sector seems to curb the practices of discrimination that we have observed in the for-profit nursing home sector. This lends evidence for the important interplay between behavior and intuitions, or micro and meso level of analysis (Jilke et al. 2019). A behavioral research agenda on this basis would examine institutional differences in discriminatory behaviors across different bureaucratic settings and contexts.

Our findings also have practical implications. It seems safer to provide social services in public and nonprofit sectors than to privatize social services into for-profit markets. A further implication might be that we must carefully balance the pros and cons of introducing market mechanisms within the nonprofit sector. Market-type mechanisms such as competitive tendering, quasi-market instruments, or client-based financing may counter the nonprofit sector's mission-driven nature and fundamentally alter its operations. Once financial incentives are high-powered, they may be strong enough to crowd-out the social mission of nonprofits. Finally, our work may have relevance for the discussion of the non-take-up of social services. Withholding information may be an obvious way to increase learning costs and prevent clients from accessing social services (Herd and Moynihan 2019). Yet, in our case, this is not happening. Our study suggests that empowering frontline workers with mission-driven incentives may be critical to ensuring take-up of services.

Contrary to many studies in the private sector, we did not find ethnic discrimination in nonprofit nursing homes. Yet, it would be a bridge too far to conclude that discrimination is absent from the entire admission process into nonprofit nursing homes. We only study one step in the admission process. It may well be that further downstream, members of minority groups are discouraged from pursuing a place in a facility after all. An audit experiment can generate robust evidence, but only for the first step in accessing social services. This first step is relevant because the first encounter with a social service is a relationship of unequal power, which may lead to exclusion (Hasenfeld, Rafferty, and Zald 1987). In our case, we argued that not responding to a mail would be an easy way to discriminate. It is also a viable option since 33% of the facilities did not respond to either request.

Yet, we cannot be sure that there is no discrimination in the procedure after the first contact. Typically, the first contact is followed by a face-to-face interview. In such a conversation, cues that discourage people from further applying can easily be used. We also cannot rule out that discrimination is absent in the daily operation of nursing homes once people are accepted into the facility. Hustinx and De Waele (2015), studying another Flemish nonprofit case of social groceries, found that complex demands on organizations lead to a prevalence of a managerial and a service logic at the expense of the nonprofit's participatory and emancipatory mission. A social mindset at the first point of contact in a nursing home does not guarantee a social mindset in the whole organization. While audit studies are a valuable addition to the researcher's toolbox for studying discrimination, they should not substitute other, presumably more qualitative research strategies for uncovering discrimination beyond the access point of organizations.

It should also be acknowledged that our study is a snapshot of discrimination in one sector, one region, and at one point in time. Each of these contextual factors has implications. First, we study nursing homes. The nursing home sector provides a general social service with a client base of all corners of society. This context is different from nonprofit organizations that work

with vulnerable clients confronted with other problems. The social mission of those nonprofits is more pronounced, which may limit discrimination. Second, we study nursing homes in Flanders. Flanders has a well-established nonprofit tradition in public service delivery, with firmly institutionalized facilities (Verschuere and Vancoppenolle 2010). An interesting point of comparison would be how nonprofits that are in a more precarious financial state would fare. Would they more quickly resort to discriminatory practices, pressured by the incentives of survival, or would they reaffirm their social mission, pressured by a need to increase legitimacy? Third, we study discrimination in 2016, at a point in time when most nursing homes report having a waiting list and the sector works near total capacity (Belfius Bank 2015). Nursing homes in Flanders operate in a quasi-market where prospective residents can freely choose between facilities. When the supply of beds is higher than demand, there may be a disincentive to cream-skin, but when there is a shortage, room for cream-skimming as a means of ethnic discrimination increases (cf. Le Grand 2017; Koning and Heinrich). A replication of this study when the supply and demand of beds in nursing homes change could expose the impact of the functioning of quasi-markets in nonprofit discrimination. Contextual factors matter for discrimination to occur. Further research should identify how institutional and cultural contexts influence discrimination and access to social services.

Notes

1. The occupancy rate covers all nursing homes in Belgium. Disaggregated data for regions and sectors are not available from public data. Yet, the main point of this statistic is to indicate that nursing homes worked near full capacity in the period under study. Another report from Belfius bank (2015) on Flemish nonprofits also notes that “[...] most nursing homes have an almost complete occupation (100%) and some even have a slightly higher occupation”. We therefore conclude that occupancy was not a big concern for nursing homes at the time of study.
2. The study was approved by the ethics board of the University of Antwerp
3. Education level: “Which degree does this person have?” (1) no degree/elementary school, (2) secondary school, (3) higher studies/university. Age: “Which age group does this person belong to?”: (1) 20 years or younger, (2) 21–30 years, (3) 31–40 years, (4) 41–50 years, (5) 51–60 years, (6) 61 years or older. Ethnicity: “Which ethnicity does this person have?”: (1) Belgian, (2) Moroccan, (3) other. Income “How wealthy is this person?”: (1) poor, (2) below average, (3) average, (4) above average, (5) wealthy.
4. The email was originally written in Flemish (see box 2 in the appendix).
5. Autoreplies and forwarded messages were coded as no replies. Nevertheless, when a direct message was later received, it was coded as a response.
6. Bayesian statistics hinges on defining a prior probability of an effect. The prior we use follows a Cauchy distribution, which allocates a higher probability to values around zero, but also allows for large effects. This is a relatively uninformative prior (Wagenmakers et al 2018).
7. As a statistical convention, Bayes factors between 1 and 3 are seen as anecdotal, between 3 and 10 as moderate evidence, from 10 to 30 as strong and beyond 30 as very strong.

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