Is there discrimination against children of same-sex households?

Evidence from an experimental study in Colombia

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Abstract

We measure the extent of discrimination against homosexual parents by schools in Colombia using a matched-pair correspondence study. We send requests to visit private schools from parents of various sexual orientations as conveyed by their names. We track the response rate from schools and the time to reply. We find that schools are 12 percentage points (22.3%) less likely to respond to a request sent by a homosexual couple than one sent by a heterosexual one. When no information about sexual orientation is provided, the response rate decreases by 20 pp. (37%) compared to an explicitly heterosexual couple. Our findings suggest that, despite a solid legal framework that protects LGBTQ+ rights, discrimination against homosexual parents is pervasive and can have intergenerational consequences.

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1. Introduction

Discrimination against individuals based on their sexual identity and orientation remains pervasive despite efforts made in the last two decades to recognize and strengthen their rights. For example, according to data from the Seventh World Values Survey, 47% of individuals do not find homosexuality justifiable under any circumstance, 48% would prefer not having a homosexual person as their neighbor, and only 32% agree that homosexual couples are as good at parenting as other couples (Haerpfer et al., 2022).

While the study of discrimination against people based on their sexual orientation has been primarily focused on the labor (Drydakis, 2009; Tilcsik, 2011; Mishel, 2016) and housing (Ahmed et al., 2008; Ahmed & Hammarstedt, 2009; Murchie & Pang, 2018) markets, little is known about the experience faced by homosexual people in other areas. Of particular concern is the approach schools use for children from homosexual parents. If schools obstruct or create barriers to enrolling children with homosexual parents, it could limit parental choices and impact their children's future outcomes, including earnings, wealth (Chetty et al., 2011; Chetty et al., 2016), and health (Conti et al., 2016). In other words, this instance of discrimination, though targeted at parents, would negatively affect children. Yet, to our knowledge, there is only one study exploring this (Diaz-Serrano & Meix-Llop, 2016), and it is restricted to a particular region of one country (Catalonia, Spain).

This paper aims to broaden our understanding of how schools behave toward parents based on their sexual orientation. To that effect, we conduct a matched-pair correspondence study in Colombia. We send fictitious requests for school visits to private schools across the country, randomly varying the parents' names to convey various sexual orientations. We track the requests and compare the response rates that parents receive from school officials. We study whether there is discrimination against homosexual parents and its extent by analyzing the differences in response rates based on the sexual orientation of the parents.

Colombia is an ideal setting to study discrimination against homosexual parents for two reasons. First, despite being predominantly Catholic (80% of its population is Catholic, and almost 60% of these are practicing), Colombia has passed very progressive legal protections for the LGBTQ+ community (Encarnación, 2016). This study, thus, provides insights for regions where policy and public opinion clash, such as US States subject to Federal policies and Supreme Court rulings.

Second, nearly 50% of Colombia's schools are private, and roughly 20% of students attend private schools —almost twice the OECD average (World Bank, 2022). Private schools often offer better quality education, making them a top choice for many parents. Therefore, studying private schools' attitudes, particularly regarding discrimination against LGBTQ+ parents, is highly relevant to a substantial portion of the population.

Our findings suggest that there is marked discrimination by schools against nontraditional parents. Homosexual parents are 22% less likely to receive a response to a request for a school visit compared to their heterosexual counterparts. In addition, when parents do not convey information about their sexual orientation, schools are 37% less likely to reply compared to requests signed by explicitly heterosexual parents, a result driven exclusively by requests sent by male writers. Despite a robust legal framework that protects LGBTQ+ rights, school discrimination against homosexual parents in Colombia is pronounced. Moreover, not disclosing their sexual orientation from the beginning does not seem like a good strategy for homosexual parents to "get a foot in the door."

This paper contributes to the broad literature on discrimination, particularly discrimination based on sexual orientation, an area that has only recently received growing attention. Recent research reveals important disparities: gay men earn less than their heterosexual counterparts (Clain & Leppel, 2001; Black et al., 2003; Black et al., 2007; Antecol et al., 2008; Klawitter, 2015), and LGBTQ+ individuals frequently report negative primary care experiences and poorer physical and mental health (Cochran & Mays, 2007; Conron et al., 2010; Elliott et al., 2015).[1] Field experiments like the one we employ show that disclosing sexual orientation results in fewer callbacks for gay and lesbian individuals in the labor market (Weichselbaumer, 2003; Badgett, 2007; Mishel, 2016); evidence of discrimination against the LGBTQ+ community in the housing market is mixed.[2]

There is significantly less empirical evidence on the discrimination experiences of homosexual parents who are looking to invest in the human capital accumulation of their children. Extant evidence, primarily based on small surveys, reports on the barriers that gay couples face when trying to become parents (Perrin et al., 2016; Perrin et al., 2019) and on their experiences with childcare and preschool settings (Matthews, 2020). An exception to this is Diaz-Serrano and Meix-Llop (2016),

[1]In contrast, studies show that college enrollment and graduation rates are higher among the queer community (Black et al., 2002; Black et al., 2007).

[2]Some studies find that gay (but not lesbian) couples receive fewer responses from landlords (Ahmed et al., 2008; Ahmed & Hammarstedt, 2009; Lauster & Easterbrook, 2011), while other studies conclude that landlords actually favor homosexual couples' applications (Murchie & Pang, 2018).

who, using a correspondence study, find that gay (but not lesbian) parents had a significantly lower return call probability than their heterosexual counterparts.[3] Providing a welcoming environment to children from these families is crucial. As shown by Mazrekaj et al. (2020), children raised from birth by same-sex parents in the Netherlands perform equally well in both primary and secondary education compared to children raised by different-sex parents.

Our study allows us to *causally* estimate the existence and extent of school discrimination against homosexual parents, an issue that has received limited attention in prior research, with the exception of Diaz-Serrano and Meix-Llop (2016). Our study differs from theirs in a number of ways. First, we not only look at differences in response rates by schools but also how quickly schools reply to the requests. This is another critical dimension that schools could use to discriminate against minority groups and a metric that is missing from most correspondence studies (Bertrand & Duflo, 2017). Second, in our context, private schools (and, in particular, religious schools) play a more relevant role in households' decisions regarding human capital investment. Finally, our study has a national scope rather than being restricted to a single region of the country, giving it broader external validity.

2. Background

2.1. The LGBTQ+ community in Colombia and the legal system

Based on the most recent household surveys, Colombia is home to nearly 50,000 same-sex households, comprising approximately 0.34% of all households within the nation, as reported by the Colombian National Statistical Office (DANE, 2022a). While these surveys may underestimate the LGBTQ+ population, they provide valuable insights into their demographic characteristics.[4] A

[3]Discrimination by schools has only recently received attention from economists. Studies that focus on discrimination based on children's traits find that schools are less likely to respond to requests from parents if they signal that their child is low-performing or has special needs (Bergman & McFarlin Jr, 2020), or if the child has a cognitive or medical condition (Ahmed et al., 2021). Other studies analyze differences in school receptiveness of children based on the characteristics of the parents: in addition to Diaz-Serrano and Meix-Llop (2016), Díaz-Serrano and Flamand (2020) find that schools are more likely to respond to requests from single parents (primarily single mothers) than from couples. Finally, de Lafuente (2021) find that schools are less likely to respond to requests to visit when they come from families of migrant origin.

[4]Differences in demographic characteristics between same-sex and heterosexual couples may be influenced by the likelihood of respondents disclosing their sexual orientation. While survey counts focusing on the broader LGBTQ+ population (not solely confined to households) suggest a prevalence range of 1% to 4%, using a list experiment Ham et al. (2023) find that between 12% and 22% of the population in Bogotá may identify as part of this community.

significant concentration of LGBTQ+ households are found in the nation's largest urban centers, such as Bogotá, Medellín, Cali, and Cartagena. Additionally, despite homosexual couples being less inclined to have children compared to heterosexual couples (46.9% versus 76.3%), a substantial proportion of same-sex couples do raise children.[5]

Regarding socioeconomic attributes, household surveys reveal distinctions between LGBTQ+ individuals and the broader population.[6] Those who self-identify as part of the LGBTQ+ community tend to have higher levels of education compared to the general population. Furthermore, they exhibit greater rates of labor force engagement (71.8% versus 65.4%), slightly elevated employment levels (60.2% versus 56.9%), albeit also experiencing a higher unemployment rate (16.2% versus 13% DANE, 2022b). Among those who work, the incomes are higher for individuals of the LGBTQ+ collective than for non-LGBTQ+ persons, both at the average level and at different points of the income distribution.[7] This also implies that LGBTQ+ individuals are less likely to be poor based on their income.

The Colombian legal system includes several laws that protect the rights of LGBTQ+ households. First, law 1482 passed in 2011 banned discrimination based on sexual orientation.[8] The law specifically includes criminal sanctions for the obstruction or restriction of the full exercise of the rights of people in several minority communities (Mora Martínez, n.d.).

Second, in November 2015, the Constitutional Court approved adoption without any restriction or limitation.[9] In this landmark ruling, the Court emphatically declared that the State's responsibility to provide a nurturing family environment for children, ensuring their well-being, should never be influenced by the sexual orientation of prospective adoptive parents.

[5]As a reference, according to The Williams Center, approximately 3.5% of Americans openly identify as part of the LGBTQ+ community (Gates, 2023). In Europe, around 5.9% directly identify as LGBT, varying from 7.4% in Germany to 1.5% in Hungary. Interestingly, when provided with a broader range of options, 10% of Europeans identify as non-heterosexual, nearly double the 5.9% who do so when asked directly (Vesey- Byrne, 2016). Interestingly, the available data suggests that the differences in demographic characteristics between LGBT communities and couples with different genders in Europe and the US follow similar patterns (U.S. Census Bureau, 2021; Schraepen, 2022).

[6]We should note, however, that underreporting of non-heterosexual orientation might bias these differences.

[7]Average income is 2.2 million Colombian Pesos (COP) per month for LGBTQ+ individuals, but only 1.4 million COP for non-LGBTQ+ individuals. The 25th, 50th, and 75th percentiles for LGBTQ+ individuals stand at 0.9, 1.2, and 2.2 million COP per month, while for non-LGBTQ+ persons, the corresponding figures are 0.5, 1, and 1.4 million COP per month.

[8]Prior to this law, being homosexual in Colombia was classified as a crime until 1981. The subsequent 1991 constitutional reform includes guarantees such as the right to equality, the constitutional principle of pluralism, and the right to free development of personality.

[9]The ruling resulted from a claim of unconstitutionality that provided evidence that homeless children lacked rights since homo-parental households could not adopt them.

Finally, in 2016, Colombia became the fourth country in South America to legalize same- sex marriage, after Argentina, Brazil, and Uruguay. Marriage became legal when the Constitutional Court issued a ruling for the legalization of same-sex marriage throughout its national territory.

This progressive legal framework protecting the LGBTQ+ community extends to the peace agreement between the national government and the Revolutionary Armed Forces of Colombia (FARC). In 2016, the Gender Subcommittee, which included an LGBTQ+ member, acknowledged that women and the LGBTQ+ community were disproportionately affected by the armed conflict and added specific gender provisions to the agreement. Chief among these is the creation of a committee to investigate crimes against individuals working in politics, with particular emphasis on crimes against women and the LGBTQ+ population. Additionally, quotas for these communities were set to increase their representation, and measures for non-stigmatization and reconciliation were promoted (Gómez & Ávila, 2021).

2.2. Attitudes towards LGBTQ+ individuals

Despite having one of the most robust legal frameworks in Latin America, LGBTQ+ activists argue that it does not fully protect them against discrimination. According to multiple NGOs, including Colombia Diversa and Caribe Afirmativo, long-standing stereotypes and misinformation prevail regarding gender identity and sexual orientation (Bocanumeth, 2020). This harmful rhetoric has translated into violence and threats against the LGBTQ+ community. In 2020, for example, the number of threats, homicides, and instances of police violence against the LGBTQ+ community reached record highs, while crime in the country decreased due to the pandemic-induced lockdowns (Colombia Diversa, 2021).

Given the divide between the rule of law and the persisting discrimination described by the activists, it is worth considering how the broader society perceives LGBTQ+ households. The World Values Study includes a question on whether individuals like the idea of having homosexuals as neighbors. Approximately 25% of the surveyed Colombians declared that they would, placing the country in the middle position of Latin-American countries (Figure 1). Colombia's neighbors (Ecuador, Venezuela, and Peru) display higher levels of dislike, while Brazil, Argentina, Mexico, and Chile report a lower intolerance to homosexual neighbors.

Furthermore, when we consider the question of whether homosexual parents are as good as other parents, Colombia is among the countries with the lowest levels of agreement (Figure 2). About a third

of the surveyed Colombians agree with this statement, which is only slightly higher than Ecuador and greater than Peru. The rest of the countries in the region report a higher level of tolerance towards homosexual parents, with Brazil showing the highest levels. This marks a contrast with the mounting evidence showing that children raised by homosexual parents fare as well as those raised by heterosexual parents (Manning et al., 2014; Perrin et al., 2016).

The figures presented in this section provide evidence of what activists have expressed regarding the Colombians' views towards LGBTQ+ households. The fact that merely one- third of Colombians view homosexual parents as equally acceptable as their heterosexual counterparts or would readily accept them as neighbors suggests the presence of potential bias or differential treatment of homosexual and heterosexual couples. Such biases may also extend to certain school staff members. More importantly, given the progressive legal framework, we expect that the results from the study will reflect the beliefs about homosexual couples in Colombia rather than the result of discriminatory governmental policies against this group. If homosexual parents are not considered equal to their heterosexual counterparts, school personnel may exhibit greater hesitancy in admitting children from such households. An example of parents struggling to register their child in school was recently made public (El Tiempo, 2022): a same-sex couple reported that they encountered enrollment denials from seven schools.

2.3. Education in Colombia

There are approximately 16 thousand schools in Colombia, of which eight thousand (48%) are private. Like other developed and developing countries, average academic achievement in Colombian public schools is lower than in private schools, and there is significant heterogeneity within the public and private sectors.

School is mandatory from the 1st to the 9th grade (also known as basic education), which is divided into two cycles: 1st to 5th grades (primary school), and 6th to 9th grades (lower secondary school). Schools can adhere to one of two academic calendars: Calendar A, spanning from February to November, and Calendar B, running from September to June. Public and most private schools across Colombia adhere to Calendar A, while a subset of private schools (comprising 7% of all private schools) operate according to Calendar B. Calendar B schools tend to have higher average academic performance compared to other private schools; they are more likely to have a bilingual program and employ a single session system, as opposed to a two-session system (morning and afternoon sessions,

LEE, 2022).

While admission to public schools is guaranteed by law (although admission to a specific school is subject to the availability of vacancies), in the private sector, admission and enrollment procedures vary from one school to another. The timing of these admission and enrollment processes fluctuates and may vary based on the grade level. Enrollment for initial and preschool levels typically starts earlier due to limited slots in these categories. However, admission for 1st grade, the grade under consideration in this study, aligns with the timing for admission to other grade levels. A prevalent practice in private schools involves starting the admission process with a school visit, which can be initiated either by parents or by the schools themselves. These visits may occur individually or within group settings during open days designed for all potential families.

3. Experimental design

Due to logistical constraints, we restricted our experiment to Calendar B schools. We first obtained a comprehensive dataset these schools (totaling 584 schools) from the Ministry of Education.[10] This dataset contains various pieces of information for each school, including its location, its gender composition (mixed, girls-only, and boys-only), the grades offered, whether it is bilingual, and the name of the principal, from which we inferred their gender. We supplemented this dataset with data on the average score in the standardized test for 3rd graders from the Colombian Institute for the Promotion of Higher Education (ICFES) and the time devoted to each class in the school from DANE.

Figure 3 provides a map of the distribution of schools in our sample by Department (Departamento, the first administrative division of Colombia), with most Calendar B schools located in the west of the country, where 80% of the population lives.

Two parents contacted each school: one was explicitly homosexual, and the other one was randomly assigned to be either explicitly heterosexual or to not disclose their sexual orientation.[11] Specifically, the parents' profiles consisted of three fathers and three mothers who would be the message writers, as follows: Father 1 has a male spouse (gay couple); Father 2 has a female spouse

[10]The data can be obtained from https://sineb.mineducacion.gov.co/bcol/app

[11]In all Departments, we sent messages from heterosexual parents. In addition, we contacted schools from a parent who does not disclose their sexual orientation in the two Departments with the most schools (Bogotá and Valle del Cauca).

(heterosexual couple); Father 3 does not mention his spouse, but he writes in first-person plural (he does not disclose his sexual orientation); Mother 1 has a female spouse (lesbian couple); Mother 2 has a male spouse (heterosexual couple); and Mother 3 does not mention her spouse, but she writes in first-person plural (she does not disclose her sexual orientation). Therefore, there is one couple of gay parents, one couple of lesbian parents, two couples of heterosexual parents, and two parents (one man and one woman) whose sexual orientation is not disclosed but who also write their message in the first-person plural to convey the idea that they are part of a couple.

For each parent (and their spouses, if mentioned) we selected first and last names from the list of most common first and last names reported by the National Civil Registry (*Registraduría Nacional del Estado Civil*) of Colombia to ensure familiarity across the country. We also created an email address from which to send the message, and a phone number.[12]

Every school received one message from a homosexual couple, and we chose randomly if the message would come from a woman (Mother 1, lesbian couple) or a man (Father 1, gay couple). Then, keeping fixed the gender of the message writers within the school, we randomized the sexual orientation of the other message writer (heterosexual or undisclosed orientation). That is, if the school was assigned to receive a message came from Mother 1 (lesbian couple), we chose at random if the additional message would come from Mother 2 (a woman in a heterosexual relationship) or Mother 3 (a woman not disclosing her sexual orientation). Therefore, each school falls into one of four possible groups, depending on the identities of the two message writers: i) Mother 1 (lesbian couple) and Mother 2 (heterosexual couple); ii) Mother 1 (lesbian couple) and Mother 3 (undisclosed orientation); iii) Father 1 (gay couple) and Father 2 (heterosexual couple); and iv) Father 1 (gay couple) and Father 3 (undisclosed orientation). Figure A1 shows these four groups and the number of schools assigned to each group.

Table 1 presents balance tests across groups for each school covariate, with most covariates achieving balance, except for the number of schools for which test scores are missing, which is lower for two of our treatment arms.

We sent the messages between the months of February and April 2022. Schools were contacted either via e-mail or using a contact form from their website, if available.[13] Regardless of the contact method, the message sent was the same: the sender was looking for a school for their child to start

[12]All e-mail addresses followed the pattern "initiallastnamedate@gmail.com." The phone number was only included to receive responses from schools and to make our requests more credible.

[13]The protocol used to determine the best method of contact for each school can be found in Appendix B.

first grade the following academic year and wanted to visit the school, having received good references.[14] The message was always written in the first-person plural to convey the idea that it was a couple making the request.[15] Appendix C contains examples of the inquiries sent. The messages were sent two weeks apart from each other to reduce the risk that schools suspected that the requests were not from real parents.

We tracked whether the school replied to our inquiry and the time between the request and the school's first response. To reduce the burden on schools and the risk of contaminating the study, we never replied to e-mails or answered phone calls.

4. Empirical strategy

Since schools within each *Departamento* were randomly assigned to each of the four groups we created, we can estimate the differential effect of receiving a request from a specific couple using ordinary least squares (OLS) estimators. Specifically, throughout this paper, we estimate equations of the form:

$$\boldsymbol{Y_{ij} = \beta_0 + \beta_1 \times Homosexual_i + \beta_2 \times SO\_Undisclosed_i + \mu_j + \varepsilon_{ij}} \quad (1)$$

Where Y_{ij} is an indicator that takes the value of one if the school j replied to the request sent by parents i, and zero otherwise, $Homosexual_i$ is a dummy variable that takes the value of one if the request was sent from explicitly homosexual parents and $SO\_Undisclosed_i$ is an indicator that takes the value of one if the request was sent from parents whose sexual orientation was not disclosed. Hence, the coefficients β_1 and β_2 reflect the difference in the outcome of interest between a request sent by heterosexual parents and homosexual parents or parents that do not disclose their sexual orientation, respectively. In our regressions, we include school fixed effects (μ_j), and we cluster our standard errors at the school level.

[14]We included the name of the child to make the request more credible. In all cases we chose female names to reduce experimental costs (except for male-only schools that comprised less than 2% of the sample), as in Diaz-Serrano and Meix-Llop (2016).

[15]In Spanish, there is no gender-neutral word equivalent to "spouse" that we could use for the messages sent from parents who did not disclose their sexual orientation.

5. Results

Of the 584 schools in our sample, only 512 offered first grade and had some contact information that we could use (either e-mail or contact form on their website). Of these 512, we were able to send two messages (one from a homosexual parent and one from either a heterosexual parent or a parent who does not make their sexual orientation explicit) to 468 schools.[16]

Table 2 presents summary statistics for this group of schools. Most Calendar B schools (85%) are located in urban areas. Three-quarters of the schools offer primary, basic secondary, and high school education. Almost all the schools are mixed gender (only 4% admit only girls, and 2% admit only boys). Forty percent of schools in our sample have instruction in more than one language, in most cases with English as a second language.

Most schools in our sample (over 80%) are religious. We classify a school as religious using data collected by the National Department of Statistics (DANE) about the time devoted to each course in the school curriculum. We consider a school as religious if they include religious classes as part of their curriculum.[17] We also checked the schools' names and websites (when available) for any mention of a religious affiliation.

One third of the schools in our sample had a male principal at the time we contacted them, and approximately a quarter of the schools have students with disabilities enrolled (details about the type of disability are not available in the data). Finally, the average score in standardized math and Spanish 3rd grade tests is approximately 380 over 500. While this is almost 100 points higher than the average for other schools, there is substantial variation within calendar B schools (for example, the worst performing calendar B schools have scores that fall within the 25th percentile of the overall distribution of test scores).

[16]We were not able to reach certain schools using the method of contact provided by them. In addition, during our experiment, we realized that a number of schools were part of the same system and thus had a centralized contact e-mail, so we stopped contacting them. Finally, we dropped thirteen schools from the sample because we were able to contact them only once, either because their mailboxes were full or because they changed the contact method after we sent the first message but before we sent the second message.

[17]Despite most of Colombia's population identifying as Catholic, the 1991 Constitution guarantees freedom of worship as a fundamental right. Schools have the independence to introduce additional classes in their curriculum, including religion classes, if they deem it to be an essential component of their values. However, students may decide whether they receive the religious education institutions provide. The Constitutional Court has ruled in several instances, establishing that school-age students cannot be forced to receive religious education normally provided by schools (Beltran, 2013; Redondo & Sarrazin, 2022). In that case, schools must provide alternative classes or activities for students during religious classes.

Table 3 shows the raw response rates from the schools we contacted by sexual orientation of the parents and gender of the request's sender. Heterosexual parents received a reply from schools for 53% of the requests sent, with a somewhat higher response rate when the sender was a woman as opposed to a man (57% vs. 50%). This figure is in line with previous correspondence studies involving schools (Diaz-Serrano and Meix-Llop, 2016; Bergman and McFarlin Jr, 2020; Ahmed et al., 2021). On the other hand, only 43% of requests sent by homosexual parents were replied, and the response rate was the same across genders of the message writer. Finally, when we only included the name of one parent in the request, giving no information about the sexual orientation of the couple, the response rate dropped to 37%, and the difference between the response rate for requests sent by women and men is of almost 20 percentage points (pp.) (46% vs. 28%).

In Table 4, we look at the behavior of schools in terms of which requests they replied to, by gender of the message writer and the sexual orientation of the comparison parent (the one who sent the message in addition to the explicitly homosexual parent). Overall, 40% of schools did not respond to any of the requests we sent (column 2), while 30% replied to both requests (the one sent by a homosexual parent and the one sent by either an explicitly heterosexual parent or a parent who did not disclose their sexual orientation, in column 3). Ten percent of schools that received a message from a homosexual and a heterosexual parent replied only to the message sent by the former (column 4), while 22% replied only to the request sent by the heterosexual parent (column 5). When we compare responses to requests sent by a homosexual parent and a parent of undisclosed sexual orientation, the schools that replied to only one of the messages are 18% and 10%, respectively. In both cases, the differences in response rates are statistically significant, as shown in McNemar's χ^2 test statistic (column 7).

When we disaggregate the data by the gender of the parent writing the request, we find that for male writers, homosexual fathers are significantly less likely to receive a response than heterosexual ones, but they are more likely to receive a response from the school than fathers who do not disclose their sexual orientation. Interestingly, there is a larger number and share of schools that reply to homosexual fathers in the treatment arm in which the comparison father's sexual orientation is not disclosed than in the treatment arm in which the comparison father is explicitly heterosexual.

Turning to female message writers, homosexual mothers are less likely to receive replies than mothers who are explicitly heterosexual or who do not disclose their sexual orientation, although the

second comparison is not statistically different from zero.

These figures provide preliminary evidence that homosexual parents are discriminated against by schools and that fathers who do not disclose their sexual orientation are even less likely than homosexual fathers to receive a response from schools.

5.1. Econometric analysis of response rates

Table 5 shows our main results. In columns 1 and 2, we regress an indicator that takes the value of one if the school replied to the request to visit on indicators for the sexual orientation of the parents conveyed by the gender of their names: homosexual or undisclosed (only the name of one parent was included in the message). The base group is heterosexual parents. In column 1 we pool male and female writers together, and in column 2 we distinguish between mothers and fathers.

Homosexual parents are 12 pp. (22.3%) less likely than heterosexual parents to receive a response to a request to visit.[18] When the sexual orientation of the couple is not disclosed, schools are 20.1 pp. (37.4%) less likely to reply than if the message is sent by an explicitly heterosexual couple. The difference in response rates between homosexual and undisclosed orientation parents is statistically significant (the p-value of the t-test is 0.038).[19]

These results, however, hide some heterogeneous effects by gender of the message writer. The lower response rates to homosexual parents compared to heterosexual parents is similar across gender (at 10.3 and 13.8 pp. for father and mothers, respectively). However, fathers who do not disclose their sexual orientation are 31.6 pp. (62.8%) less likely to receive a response than heterosexual fathers, while mothers who do not disclose their sexual orientation are only 8.3pp. (14.5%) less likely to receive a reply from a school than explicitly heterosexual mothers, and the coefficient is not statistically significant. In fact, we can reject the hypothesis that the coefficient for fathers who do not disclose their sexual orientation is equal to that of mothers who do not disclose their sexual orientation; we can also reject that it is equal to that of homosexual fathers.

[18]Interestingly, this effect size is similar to the one estimated by (Diaz-Serrano & Meix-Llop, 2016), despite the differences between our context and the one in which they carried out their study.

[19]Because we sent messages from parents who do not disclose their sexual orientation only in the two Departments with the largest number of schools (Bogotá and Valle del Cauca), it is possible that results are different between these Departments and the rest of the country. In Table D1 we show the differences in response rates to homosexual parents separately for Bogotá and Valle del Cauca and the rest of the country, and we find that the coefficients are statistically similar.

There are various possible reasons for the behavior we observe from schools when it comes to parents who do not disclose their sexual orientation. One possibility is that, if schools exert effort to tailor each visit to the characteristics of the family, there is a higher cost for a school to prepare a visit for a parent who does not disclose their sexual orientation. In that case, schools may prefer not to reply if the cost of preparing the visit for parents who send that type of requests is higher than the expected benefit (in terms of the probability of the parents enrolling the child and the tuition they would pay).

If this were the case, we would expect schools behaving in a similar way regardless of the gender of the message writer. In addition, we would expect for schools that reply to these e-mails to be more likely to ask for additional information about the parents than when they reply to requests from heterosexual or homosexual parents. However, we do not find this to be the case.

A second possibility is that schools could make different inferences about the type of household sending these requests based on the gender of the sender. In Colombia, as in many countries, women are usually in charge of following up on children's education.[20] Therefore, schools may consider requests from male writers as likely to come from a single-parent house- hold, or a father that for some reason has more time to take care of their child's education (for example, because he is unemployed). There is evidence of discrimination against single parents in the housing market (Murchie & Pang, 2018), but the only study that looks at school discrimination against single parents (Díaz-Serrano & Flamand, 2020) does not find evidence of this. While we cannot discard this possibility, our requests were always written in plural. Moreover, it is at least surprising to find such differences in response rates among male senders.

Lastly, our findings may stem from a combination between the inference about the sexual orientation of the couple that schools make based on the gender of the parent who sends the request (due to social norms), and changes in the cost of not responding based on the information conveyed by the message. Schools may infer that a request sent by a man who does not disclose the name of his spouse is more likely to be from a gay couple than a similar message sent by a woman. In addition, schools may find it "costlier" to ignore a message sent by an explicitly homosexual couple than one in which there is ambiguity in their sexual orientation (e.g., because discrimination may be more salient in the first situation than in the latter). In fact, (Kirgios et al., 2022) find that when asking for help,

[20]For example, Buzard et al., (2023) find that schools are more likely to call back mothers than fathers even when fathers send an e-mail to the school.

people who explicitly signal their belonging to a minority group are more likely to receive a response than those whose belonging can be inferred but is not made explicit.

5.2. Response time

In addition to register if a school replied to our requests, we registered the date the school replied. We can use this data to study whether there is any difference in the time schools take to reply to our requests by sexual orientation of the sender.

Because schools self-select into replying to our requests, we consider an unconditional measure of the time to respond.[21] Almost 80% of the schools that respond to our messages do so within one day (i.e., the day we sent the request or the day after we sent it).[22] We therefore created a *Fast response* dummy that takes the value of one if a school replied within one day, and zero otherwise (including if the school did not reply at all).

The results are presented in columns 3 and 4 of Table 5. In column 3 we pool fathers and mothers together. Homosexual parents are 10.6 pp. (25.7%) less likely than heterosexual parents to receive a response within one day. For parents who do not disclose their sexual orientation, the probability of receiving a fast response is 18.7 pp. (45.3%) lower than that of heterosexual parents, and it is also statistically lower than that of homosexual parents.

In column 4 we further disaggregate the likelihood of receiving a fast response by gender of the message writers. While the differences in the time to receiving a response among homosexual parents shown in column 1 are similar for fathers and mothers, only fathers who do not disclose their sexual orientation have a significantly lower likelihood of receiving a fast response than heterosexual and homosexual fathers.

The effect sizes we find are slightly higher than those presented in columns 1 and 2 of Table 5, which suggests that schools not only are less likely to respond to requests sent by homosexual parents and those who do not disclose their orientation, but they are also more likely to delay their response. Schools may wait until their vacancies are filled to reply to requests from homosexual parents or those who do not disclose their sexual orientation or delay their response in hopes that the parents have found

[21] We also analyzed differences in responses conditional on replying, including the time it took for schools to reply and the quality of the response. The results can be found in Online Appendix 1.

[22] We sent all our requests on Tuesdays, Wednesdays, and Thursdays, from 9AM to 12PM, so that requests were not "lost" in the school's inbox during weekends.

a spot in another school by the time they reply.

5.3. Which type of schools are more likely to discriminate?

As we mentioned in section 3, we have a rich set of school characteristics in our database. We can use some of these characteristics to dive deeper into the type of schools that are more likely to discriminate against homosexual parents or those whose sexual orientation is not disclosed. This in turn can provide some insights about the origin of discrimination (i.e., taste-based or statistical), despite the fact that our study was not explicitly designed to determine this.

First, we look at the difference in replies by school quality. We proxy school quality by the average score in the standardized third grade test. Scores in these tests range from a minimum of 0 to a maximum of 500. There is substantial heterogeneity in the average test score within calendar B schools: those at the bottom 1% have an average score of 286, while schools in the top 1% average 486 points. Moreover, even though private schools (especially calendar B schools) tend to perform better than public schools (which are about half of the calendar A schools in the country) in standardized tests, there is significant overlap between the average scores of calendar B and calendar A schools: the worst performing schools in our sample are below the 25th percentile of the distribution of test scores for the universe of schools.

Here, we split the sample of schools in half, considering "low quality" those whose average score is below the median and "high quality" those for which the average score is above the median. The results are presented in Panel A of Table 6. Both low- and high-quality schools have a lower response rate to requests when the parents who send it are homosexual or if their sexual orientation is not disclosed. However, the point estimate for low-quality schools is more than twice as large in magnitude as that we observe among high-quality schools.

According to our estimates, schools that do better in standardized tests have a 14.5% lower probability to reply to a request sent by a homosexual couple than to one sent from a heterosexual one, and a 27% lower probability of replying if the sexual orientation of the couple is not disclosed. Both estimates are only marginally significant. In contrast the effect sizes for low-quality schools are 35.7% and 54.8% for homosexual and undetermined parents, respectively. Low scores in standardized tests may be indicative of a bad administration from the school (for example, failure to attract and retain good teachers). Lower response rates to nontraditional parents may thus be a consequence of these management issues.

In Panel B of Table 6 we split the sample by between religious and secular schools. Discrimination against nontraditional parents is concentrated among religious schools. Homosexual parents are 22.6% less likely to receive a response to a request to visit than heterosexual parents, and in the case of parents whose sexual orientation is not conveyed in the request, the response rate from religious schools is 39.7% lower than for heterosexual couples. For secular schools, point estimates are also negative but their size is about half that of religious schools and they are not statistically different from zero.

Finally, in Panel C of Table 6 we look at differences in response rates by gender of the school principal. Once again, we observe higher response rates to requests sent by heterosexual parents than for any other type of parent regardless of the gender of the principal. However, homosexual parents are 11.9% less likely to receive a response when the school is headed by a woman, while the difference increases to 38% when the principal is a man. In the case of parents whose the sexual orientation cannot be determined from the request, the reduction in response rates amounts to 31.7% for female-led schools but increases to 46% when the principal is male. Schools headed by a man are also less likely to reply to requests sent by nontraditional parents regardless of the gender of the person sending the inquiry, while in the case of female-headed schools, only requests sent by openly homosexual men or men who do not disclose the gender of their spouse receive lower response rates.

This result is in line with research in other areas showing that men are more likely to discriminate than women. Boring (2017) and Mengel et al. (2019), and more recently Ayllón (2022) find that, ceteris paribus, male students tend to evaluate female professors more harshly than female students. De Paola and Scoppa (2015) find that when promotion committees are composed exclusively by men, female professors have a lower likelihood of being promoted, an effect that disappears when the committee is composed of professors of both genders. Finally, Egan et al. (2022) find that women are more severely punished for misconduct than men, but this difference disappears when firms have a larger percentage of female managers and executives. In our setting, even though principals are not directly responsible for replying to requests or general inquiries from parents, they may set directives for how their schools should handle requests from parents based on their characteristics.

6. Conclusion

Despite the progress made in the last decade in Latin America to strengthen the rights and

protect LGBTQ+ individuals, discrimination against this collective remains pervasive. Discrimination by schools against homosexual parents is particularly concerning because, even though it is directed at parents, it ultimately affects their children and can have long- lasting consequences for them. If parents are constrained in terms of the schools they can enroll their children in, they may have to register them in a school that does not align well with their preferences in terms of educational investment (affecting the human capital accumulation of their children and their future wages) or may require them to make remedial investments that demand additional time and/or money.

In this paper, we measure the extent of school discrimination against homosexual parents in Colombia using a correspondence study. We sent requests to visit private schools in the country to register a first grader. The requests differed only in the number of parent names we included (one or two), and the gender of the parents, to convey various sexual orientations. Our results suggest that schools are significantly less likely to reply to requests sent by homosexual parents and parents that do not disclose their sexual orientation. This last result is driven by non-response to requests sent by men, which suggests that when parents do not disclose their sexual orientation, schools make different inferences about it based on the gender of the person sending the request. In addition to that, schools may consider discrimination to be more salient if they ignore a request from an explicitly homosexual parent than one coming from a parent whose sexual orientation is ambiguous. We also find that schools reply faster to heterosexual parents than either homosexual ones or parents who do not disclose their sexual orientation.

One caveat, as with most correspondent studies, is that we cannot in principle determine whether our findings reflect taste-based or statistical discrimination (Heckman & Siegelman, 1993; Heckman, 1998). If schools associate homosexual parents with undesirable characteristics, or if the variance of certain characteristics is larger for homosexual than heterosexual parents, then it may be rational for them to respond at higher rates to requests sent from the latter. However, the evidence presented in section 2.1 suggests that, if anything, homosexual couples are on average better educated and have a higher income than heterosexual ones. While these may not be the only factors that schools consider to determine admission, they are probably some of the most important.

An additional limitation of this study is that we cannot distinguish between a systematic preference of schools for certain parents. It is possible that the difference in response rates simply reflects the preferences of the individual decision of the person who received the request, even

though the school itself would not discriminate if homosexual parents filed a formal request to register a child. While the anecdotal evidence presented in section 2.2 does not support this hypothesis, further research should be devoted to determining the root causes of the results we observe.

Similarly, even if discrimination against nontraditional couples was part of a policy from the school, it is unclear whether it stems from their own preferences or those of other parents. School officials may fear that by allowing students from homosexual parents, other parents may withdraw their children from the school, hence resulting in a loss of revenue.

Recent studies using vignette experiments involving job recruiters have shed light on the mechanisms behind employers' discrimination against women (Van Borm & Baert, 2022), older candidates (Van Borm et al., 2021), and individuals participating in public activation programs (Van Belle et al., 2019). In a similar vein, to shed light on the reasons behind the difference in response rates from schools to our requests, future research could perform similar experiments involving school authorities. As opposed to those performed with human resource professionals, these would have to be carefully designed to avoid Hawthorne effects. These caveats notwithstanding, taking our findings at face value governments should put greater effort to enforce the laws and guarantee the rights of the LGBTQ+ community. For example, in Colombia there are laws that regulate how public and private entities have to reply to formal requests and complaints from any citizen.[23] Policymakers and government officials could make sure that all schools comply with these regulations. Governments could also incentivize schools to enroll children of homosexual parents, and/or compel schools to make their enrollment process more transparent, relying less on information about the parents and on individual inquiries.

[23] Law 1755 of 2015.

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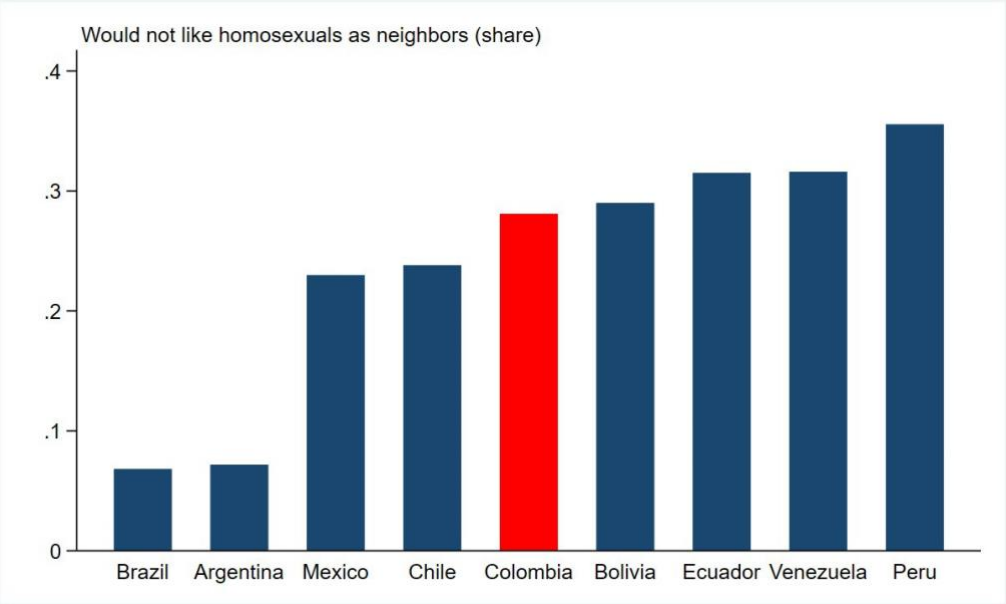
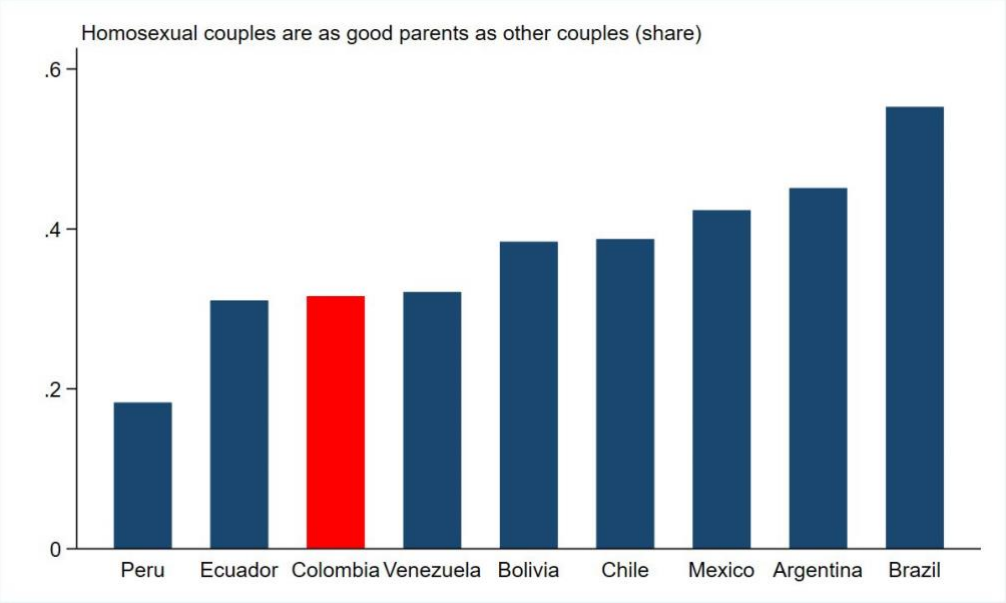
Figures and Tables

Figure 1: Do not like homosexuals as neighbors



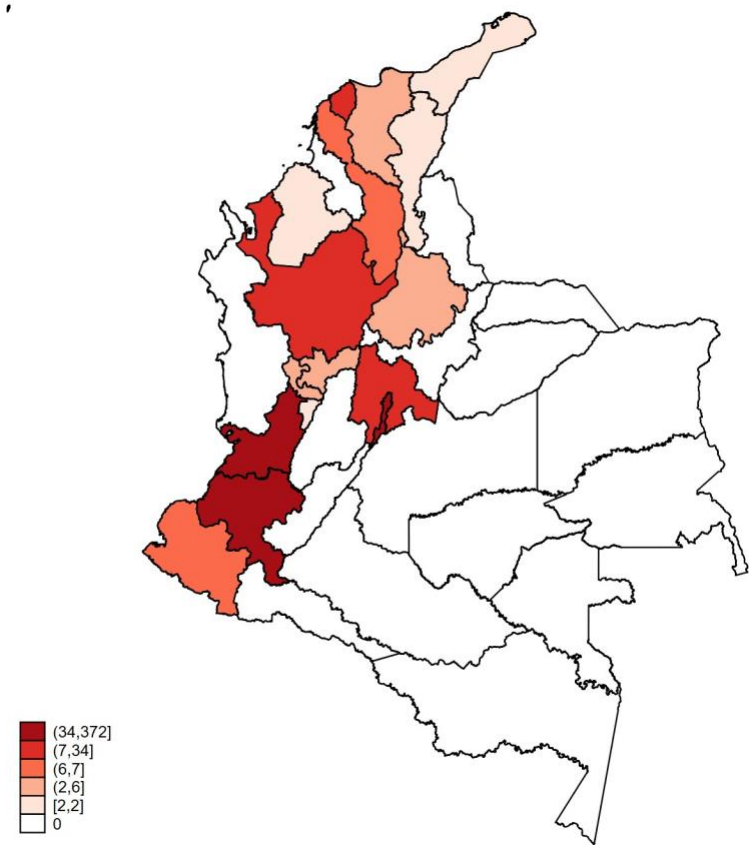
Note: 1. Yes; 0. No
Source: Own elaboration from World Values Survey

Figure 2: Homosexual parents are as good as other parents



Note: 1. Yes; 0. No
Source: Own elaboration from World Values Survey

Figure 3: Distribution of schools by Departamento



Note: The Figure shows the number of schools in our sample by Departamento, the first administrative division of Colombia.

Table 1: School covariates balance

	(1) Heterosexual couple (female sender)	(2) Undisclosed orientation (male sender)	(3) Undisclosed orientation (female sender)	(4) Constant
Centro educativo	-0.061	-0.064	0.007	0.349
	(0.047)	(0.057)	(0.056)	(0.033)
Boys-only	-0.003	-0.006	0.018	0.017
	(0.014)	(0.017)	(0.017)	(0.010)
Girls-only	0.021	0.029	0.033	0.020
	(0.020)	(0.025)	(0.024)	(0.014)
Mixed gender	-0.018	-0.022	-0.050*	0.963
	(0.024)	(0.029)	(0.029)	(0.017)
Urban area	0.018	-0.030	-0.048	0.877
	(0.028)	(0.034)	(0.034)	(0.020)
Traditional education	0.018	0.041	0.021	0.928
	(0.024)	(0.029)	(0.029)	(0.017)
Handicapped students	-0.046	-0.093*	-0.031	0.271
	(0.045)	(0.054)	(0.053)	(0.031)
Bilingual	0.068	0.075	0.050	0.319
	(0.047)	(0.057)	(0.056)	(0.033)
Branches	-0.064	-0.087	-0.063	1.073
	(0.055)	(0.066)	(0.065)	(0.038)
Spanish z-score (2017)	0.052	0.027	0.080	1.015
	(0.065)	(0.079)	(0.082)	(0.047)
Math z-score (2017)	0.043	0.018	0.177*	0.902
	(0.073)	(0.089)	(0.092)	(0.053)
Missing Spanish test score	-0.097**	-0.147**	-0.037	0.383
	(0.049)	(0.059)	(0.058)	(0.034)
Missing math test score	-0.098**	-0.138**	-0.037	0.376
	(0.049)	(0.059)	(0.058)	(0.034)
Average students' SES (2017)	-0.002	0.144	0.144	3.686
	(0.075)	(0.091)	(0.094)	(0.054)

Note: The table shows estimates of differences in observed school characteristics across treatments. Each row represents presents the results of regressing the corresponding school characteristic on indicators for each treatment arm. The omitted category corresponds to the group in which the control group are explicitly heterosexual parents, and the request writer is a male. *Undisclosed orientation* refers to requests in which the name of only one of the parents was included, despite the request being written in the first-person plural. Centro educativo refers to schools that do not offer all grades of basic education (primary and basic secondary). Traditional education implies that the school offers traditional methods of education, as opposed to other flexible methods. Handicapped students means that the school has handicapped students in its roster. Spanish and math z-score refer to the normalized score in the 2017 3rd grade standardized tests. Missing Spanish and math test score is an indicator that takes the value of one if we were not able to obtain test scores from standardized tests for that school. Average students' SES refers to the average stratum of students who took the standardized 3rd grade test in 2017.

Table 2: Summary statistics of the schools contacted

Variable	Mean	Std. Dev.	Observations
Urban area school	0.85	0.359	468
Basic secondary offered	0.79	0.409	468
Secondary school offered	0.73	0.443	468
All basic education grades offered	0.75	0.432	468
Boys-only school	0.02	0.130	468
Girls-only school	0.04	0.207	468
Instruction in more than one language	0.40	0.491	468
Religious school (share)	0.84	0.365	449
Principal is male (share)	0.33	0.472	466
Any handicapped student (share)	0.24	0.424	468
Average 3rd grade Spanish score in standardized test	380.02	37.740	370
Average 3rd grade math score in standardized test	373.99	43.083	372

Note: The table presents summary statistics for the contacted schools which academic calendar runs from September to June. Basic secondary refers to grades 6 to 10. Secondary school refers to grades 11 and 12. *Basic education grades* refers to those offered in primary school and basic secondary school (grades 1 through 10). Religious schools are those that include religion as part of their curriculum or are affiliated to a religious entity (regardless of the specific religion). Any handicapped students means that the school has handicapped students on its roster.

Table 3: Response rates for schools contacted

	All	Male	Female
Heterosexual	0.53	0.50	0.57
Homosexual	0.43	0.43	0.43
Undisclosed orientation	0.37	0.28	0.46

Note: The table shows the proportion of requests that were responded by the calendar B schools we contacted, by sexual orientation of the parents and gender of the request writer. *Undisclosed orientation* refers to requests in which only one of the parents' names was included despite the request being written in the first-person plural to convey the idea that it was a couple that was sending the request.

Table 4: Number of schools by type of response

Gender of message writer	Sexual orientation of comparison parent	Number of schools	Number of schools that responded to				Difference (1) - (2)	McNemar's χ^2 test
			Neither parent	Both parents	Homosexual parent only (1)	Comparison parent only (2)		
Male & Female	Heterosexual	283	103 (36.4%)	90 (31.8%)	28 (9.9%)	62 (21.9%)	-34	12.84***
	Undisclosed	185	83 (44.9%)	49 (26.5%)	34 (18.4%)	19 (10.3%)	15	4.25**
Male	Heterosexual	145	54 (37.2%)	40 (27.6%)	18 (12.4%)	33 (22.8%)	-15	4.41**
	Undisclosed	94	40 (42.6%)	18 (19.1%)	28 (29.8%)	8 (8.5%)	20	11.11***
Female	Heterosexual	138	49 (35.5%)	50 (6.2%)	10 (7.2%)	29 (21.0%)	-19	9.26***
	Undisclosed	91	43 (47.3%)	31 (34.1%)	6 (6.6%)	11 (12.1%)	-5	1.47

Note: The table shows the number of schools assigned to each treatment arm for the pooled group of parents and separately for male and female message writers. It also shows the number and proportion of schools that replied to none, all, or only one of the messages sent. *Undisclosed* refers to requests in which only one of the parents' names was included despite the request being written in the first-person plural.
McNemar's χ^2 test shows the test statistic for the hypothesis that the difference between schools that replied only to the message from a homosexual parent and schools that replied only to the message from a comparison parent is zero.
*** p<0.01, ** p<0.05, * p<0.1

Table 5: Effect of sexual orientation of parents on school's likelihood of replying and of replying fast (within one day)

	(1) Response rate	(2) Response rate	(3) Response within one day	(4) Response within one day
Homosexual parent	-0.120***		-0.106***	
	(0.033)		(0.033)	
Undisclosed orientation parent	-0.201***		-0.187***	
	(0.051)		(0.053)	
Homosexual father		-0.103**		-0.103**
		(0.049)		(0.049)
Homosexual mother		-0.138***		-0.109***
		(0.044)		(0.044)
Undisclosed orientation father		-0.316***		-0.284***
		(0.077)		(0.080)
Undisclosed orientation mother		-0.083		-0.087
		(0.063)		(0.068)
Heterosexual mean	0.537	0.537	0.413	0.413
Observations	936	936	936	936
R^2	0.703	0.710	0.656	0.661
Number of clusters	468	468	468	468
H_0: Homosexual parent = undisclosed parent	0.038		0.054	
H_0: Homosexual father = homosexual mother		0.601		0.937
H_0: Undisclosed father = undisclosed mother		0.000		0.001
H_0: Homosexual father = undisclosed father		0.000		0.005
H_0: Homosexual mother = undisclosed mother		0.224		0.671

Note: The table shows the proportion of requests that were responded by the calendar B schools we contacted (columns 1 and 2), and the proportion of schools that replied within one day of receiving our request (i.e., the day the request was sent and the day after, columns 3 and 4), by sexual orientation of the parents (odd columns), and sexual orientation and gender of the parent who writes the request (even columns). The dependent variable in columns 1 and 2 is an indicator that takes the value of one if the school replied to the request to visit. The dependent variable in columns 3 and 4 is an indicator that takes the value of one if the school replied to the request to visit within one day. *Homosexual* refers to same-sex parents conveyed by their names. *Undisclosed orientation* refers to requests in which only one of the parents' names was included despite the request being written in the first-person plural. The base group corresponds to heterosexual parents. Regressions include school fixed effects. Standard errors clustered at the school level in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

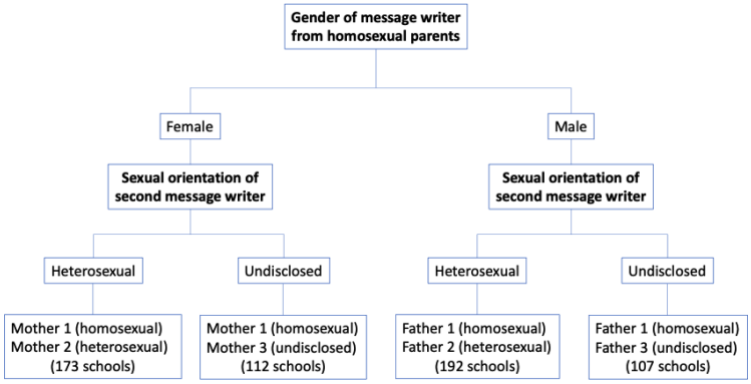
Table 6: Effect of sexual orientation of parents on school's likelihood of replying – Heterogeneity by school characteristics

Panel A: Heterogeneity by school quality	Above median test scores			Below median test scores		
	All	Male writer	Female writer	All	Male writer	Female writer
Homosexual	-0.092*	-0.038	-0.134**	-0.194***	-0.158**	-0.239***
	(0.052)	(0.089)	(0.064)	(0.055)	(0.078)	(0.077)
Undisclosed orientation	-0.171*	-0.250*	-0.068	-0.298***	-0.372***	-0.211*
	(0.087)	(0.144)	(0.092)	(0.084)	(0.117)	(0.116)
Heterosexual mean	0.633	0.623	0.642	0.544	0.491	0.609
Observations	366	172	194	360	198	162
R^2	0.676	0.581	0.774	0.686	0.648	0.736
Number of clusters	183	86	97	180	99	81
Panel B: Heterogeneity by type of school	Religious schools			Secular schools		
	All	Male writer	Female writer	All	Male writer	Female writer
Homosexual	-0.143***	-0.103*	-0.186***	-0.041	-0.111	0.045
	(0.035)	(0.055)	(0.045)	(0.088)	(0.112)	(0.140)
Undisclosed orientation	-0.231***	-0.318***	-0.128*	-0.132	-0.411	0.129
	(0.057)	(0.084)	(0.073)	(0.156)	(0.278)	(0.163)
Heterosexual mean	0.574	0.530	0.619	0.408	0.407	0.409
Observations	756	392	364	142	74	68
R^2	0.708	0.659	0.775	0.629	0.562	0.710
Number of clusters	378	196	182	71	37	34
Panel C: Heterogeneity by gender of school principal	Female principal			Male principal		
	All	Male writer	Female writer	All	Male writer	Female writer
Homosexual	-0.064	-0.079	-0.046	-0.232***	-0.159*	-0.294***
	(0.040)	(0.058)	(0.056)	(0.055)	(0.092)	(0.065)
Undisclosed orientation	-0.162**	-0.325***	0.003	-0.281***	-0.315**	-0.225**
	(0.064)	(0.098)	(0.078)	(0.084)	(0.129)	(0.106)
Heterosexual mean	0.500	0.475	0.529	0.611	0.568	0.647
Observations	620	324	296	312	152	160
R^2	0.691	0.639	0.764	0.732	0.681	0.794
Number of clusters	310	162	148	156	76	80

Note: The table shows the proportion of requests that were responded by the calendar B schools we contacted by sexual orientation of the parents, when the sample is split by school characteristics. In Panel A, the results are shown separately for high- and low-quality schools, proxied by their average result in third-grade standardized test scores. In Panel B, the schools are divided between those that are religious (proxied by whether they include religion as part of their curriculum) and those that are secular. In Panel C, the sample of schools is split by the gender of their principal. In all cases, the dependent variable is an indicator that takes the value of one if the school replied to the request to visit. *Homosexual* refers to same-sex parents conveyed by their names. *Undisclosed orientation* refers to requests in which only one of the parents' names was included despite the request being written in the first-person plural. The base group corresponds to heterosexual parents. Regressions include school fixed effects. Standard errors clustered at the school level in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix A Additional Figures and Tables

Figure A1: Randomization groups and sample size in each group



Note: The Figure shows the dimensions over which schools were randomized and the number of schools in each group. All schools received a message from an explicitly homosexual parent whose gender matched that of the heterosexual or sexual orientation undisclosed parent. The smaller sample size for the treatment arms that received messages from parents who do not disclose their sexual orientation is due to the fact that these treatment arms were only implemented in the two Departments with the largest number of schools (Bogotá and Valle del Cauca).

Appendix B Protocol to determine the most appropriate contact method for each school

1. Using the list of schools, we selected a school and searched for its name in Google.
2. To collect data from the school, we used the school's official page first. If the school did not have a website, we looked for its social media page (Facebook, Instagram, etc.). In those cases, we confirmed it was indeed the correct school by looking for information such as the country and municipality in which the school is located. Even though there are websites that collect and aggregate school data in Colombia, we noticed that that information was usually outdated so we decided against using them.
3. If the school's website (or its page on social networks) contained a contact form, or a button that allowed us to send a message to the school, we used said form, entering the required data, as well as the message requesting an appointment to visit the school. In the event that the form required us to include personal data that was not included in the message (e.g., ID number, date of birth, postal address, etc.), we did not use the contact form and instead searched for an e-mail address to which send our request.
4. If a school included a contact form of the PQRS (questions, complaints, claims, suggestions), we did not use that form because Colombian regulations mandate those requests to be responded.
5. If no suitable contact form was found, we looked for an e-mail to make inquiries.

Appendix C Sample of contact messages sent to schools

Lesbian couple

Good morning,

We are Carmen Arias Morales and Diana Rojas López. Our daughter Mariana has to start first grade in September and we are looking for a school for her.

We have received good references from the school SCHOOL NAME, but we would like to know it in more detail. Could we visit the school? If so, I would appreciate if you could let us know when it would be possible to do it. You can reach out to us by e-mail or by phone at 3197155605.

We thank you in advance for your help and we look forward to your reply,

Carmen Arias and Diana Rojas

Heterosexual parents

Good morning,

My name is Sandra Castro Ramírez, and with my spouse Alberto Torres Jaramillo we are looking for a school for our daughter Camila, who will start first grade next semester.

We have received good references from school SCHOOL NAME and we would like to know it a bit more. Would it be possible to visit? If so, I ask you to let us know by e-mail or phone at 3053327661 when would it be best to do so.

Thank you very much for your assistance and we look forward to your reply,

Sandra Castro and Alberto Torres

Female parent who does not mention the name of the spouse

Good morning,

Our daughter Paola starts first grade next semester and we are looking for a school for her. We have heard good things from school SCHOOL NAME, but we would like to know it a bit more. Would it be possible to schedule a visit? If so, I ask you to let us know when would be the best time to do it, either by e-mail or at 3053327599.

We thank you very much and we look forward to your reply,

Ana María Valencia Suárez

Appendix D Response rates in Bogotá and Valle del Cauca and other Departments

In addition to the message from explicitly homosexual parents, we sent messages from heterosexual parents and parents who do not disclose their sexual orientation only in the Departments with the largest numbers of Calendar B schools (Bogotá and Valle del Cauca). In the other Departments of the country, all schools received a message from explicitly homosexual parents and explicitly heterosexual parents. The following table presents disaggregates the estimates of response rates to explicitly homosexual parents between Bogotá and Valle del Cauca, and the rest of the country.

Table D1: Effect of sexual orientation of parents on school's response rates, by Department

	(1) Response rate
Homosexual – Bogotá & Valle del Cauca	-0.127***
	(0.045)
Homosexual - Rest of the country	-0.113**
	(0.048)
Undisclosed orientation	-0.208***
	(0.059)
Heterosexual mean	0.537
Observations	936
R^2	0.703
Number of clusters	468
H_0: Bogotá & Valle = Rest of the country	0.833

Note: The table shows the proportion of requests that were responded by the calendar B schools we contacted, by sexual orientation of the parents and Department. The dependent variable is an indicator that takes the value of one if the school replied to the request to visit. *Homosexual* refers to homosexual parents conveyed by their names. *Undisclosed orientation* refers to requests in which only one of the parents' names was included despite the request being written in the first-person plural. The base group corresponds to heterosexual parents. H_0: Bogotá & Valle = Rest of the country shows the p-value of the hypothesis that the estimate for Bogotá and Valle del Cauca and the estimate for the other Departments are statistically similar. Regressions include school fixed effects. Standard errors clustered at the school level in parentheses.
*** p<0.01, ** p<0.05, * p<0.1