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Telenovelas and attitudes toward the LGBTIQ+ community in Latin America

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# Telenovelas and Attitudes toward the LGBTIQ+ Community in Latin America

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# Telenovelas and Attitudes toward the LGBTIQ+ Community in Latin America

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#### Abstract\*

How does exposure to soap operas with LGBTIQ+ characters affect attitudes toward the LGBTIQ+ community? To answer this question, we construct a novel database of 175 telenovelas (soap operas) with LGBTIQ+ characters airing in 14 countries in Latin America and the Caribbean between 2002 and 2019. Exploiting variation in the introduction of new soap operas with LGBTIQ+ characters within country and surveywaves, we find that individuals exposed to more soap operas with LGBTIQ+ characters are less tolerant toward the LGBTIQ+ community. This short-term backlash is driven by exposure to telenovelas with homosexual characters and shows with comedic storylines. The effect is stronger among traditionally more conservative individuals (e.g., older or frequently attending religious services).

JEL classifications: J15, J71, N16

Keywords: Discrimination, Attitudes, LGBTIQ+, Media, Latin America, Caribbean

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# 1 Introduction

Discrimination based on sexual orientation and gender identity is rampant worldwide, including in Latin America and the Caribbean (LAC). While acceptance of homosexuality has increased over the past two decades (Pew Research Center, 2020), a sizable share of the population in LAC still holds regressive views toward homosexuality. In Argentina, for example, the share of adults who believe that homosexuality should be accepted went from 66% in 2002 to 76% in 2019 (Pew Research Center, 2020). Yet, by 2017, 15% of the population still believed that homosexuality was never justifiable (World Values Survey), and by 2019, 16% still strongly disapproved of same-sex marriage (LAPOP). The situation is even more pressing in countries with more traditional values, such as Bolivia or El Salvador, where more than half of the population believes that homosexuality is not acceptable (Pew Research Center, 2013) or in countries where homosexuality is still criminalized, such as Guyana. At the core of the discrimination are beliefs around whether or not the LGBTIQ+ community deserves equal rights. What determines such beliefs?

In this paper, we delve into the role of media representation in shaping attitudes toward the LGBTIQ+ community. We aim to understand how exposure to storylines about LGBTIQ+ characters in entertainment media affects attitudes toward the LGBTIQ+ community. To do so, we study exposure to LGBTIQ+ characters in Latin American *telenovelas* (soap operas) in 14 countries in LAC between 2002 and 2019. Exploiting plausibly exogenous variation induced by the airing of new *telenovelas*, we provide causal evidence on how exposure to LGBTIQ+ characters affects attitudes toward the LGBTIQ+ community in the short run.

To measure exposure to LGBTIQ+ characters, we constructed a novel database of 175 *Telenovelas* with LGBTIQ+ characters airing during prime time in Argentina, Bolivia, Brazil, Chile, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Peru, and Venezuela. For each of these shows, we recorded the period in which the show first aired, the number of LGBTIQ+ characters, the gender and sexual identity of the LGBTIQ+ characters, whether these characters were part of the main cast or not, and the genre of the show (e.g., comedy or drama). We combine this information with survey data on attitudes toward the LGBTIQ+ community from the Latin America Public Opinion Project (LAPOP), the Latinobarómetro, and the World Values Survey (WVS). These are nationally representative public opinion surveys conducted periodically throughout LAC, where respondents are asked to what extent they approve of homosexuals running for office (LAPOP) or whether they consider homosexuality justifiable (Latinobarómetro and WVS).

To identify the short-run causal effect of exposure to LGBTIQ+ characters on attitudes toward the LGBTIQ+ community, we take advantage of two facts: i) that new *telenovelas* with LGBTIQ+ characters got on the air during the fieldwork of public opinion surveys, and ii) that we know the exact interview date of the respondents. In a given country and survey-wave, we compare the attitudes of respondents interviewed before a new soap opera with an LGBTIQ+ character aired with those interviewed after the show's introduction. The underlying assumption is that, within a given country and year, the timing of the survey is orthogonal to the introduction of a new *Telenovela* and, therefore, orthogonal to other determinants of attitudes toward the LGBTIQ+ community.

Our findings provide causal evidence of a backlash effect. In the short term, individuals exposed to more soap operas with LGBTIQ+ characters become less tolerant of the LGBTIQ+ community. Using the LAPOP data, we find that exposure to an additional soap opera decreases the approval for homosexuals running for office by 3.6 percentage points. This is equivalent to a 9% reduction of broadly defined approval – approval higher than 5 on a scale of 1 to 10 – and a 25% reduction of strong approval – approval equal to 10 on a scale of 1 to 10. We find similar results when looking at the justifiability of homosexuality using data from Latinobarómetro and the WVS. Respondents exposed to an additional soap opera with LGBTIQ+ characters are 4 percentage points less likely to believe that homosexuality is justifiable – the justification higher than 5 on a scale of 1 to 10 and 6.8 percentage points more likely to believe that homosexuality is never justifiable (a 17% increase). We provide evidence that the backlash effect is stronger for individuals with traditional values, such as older people, people living in rural areas, and those who frequently attend religious services. Building on our novel data set, we also document that the negative effect of exposure comes mainly from exposure to homosexual characters (in fact, the effect is positive in the case of bisexual characters); and from telenovelas that are classified as comedies, where LGBTIQ+ characters are often stereotyped and caricatured. Overall, our findings suggest that, although edutainment and soap operas can potentially transform attitudes, they can also exacerbate discrimination by reproducing and amplifying existing stereotypes.

Our study contributes to a burgeoning literature that studies the role of media in shaping gender attitudes, expectations, and other outcomes. In Brazil, Chong and La Ferrara (2009) show that exposure to Rede Globo – the network that had a virtual monopoly on *telenovelas* in the country – led to an increase in the share of women who are separated or divorced. La Ferrara et al. (2011) also find that exposure to Rede Globo reduced fertility and family size in Brazil. Jensen and Oster (2009) analyze the effects of cable and satellite TV on women's attitudes in India and find that the introduction of cable TV led to a fall in

the acceptability of domestic violence toward women, son preference and fertility, and an increase in women's autonomy. Kearney and Levine (2015) show that the introduction of a popular reality show about teen childbearing reduced teen fertility in the United States. Banerjee et al. (2019a,b) show that a TV series led to significant changes in attitudes and behaviors related to HIV/AIDS as well as attitudes toward domestic violence in Nigeria. In Uganda, Riley (2022) finds that watching a film with a female role model before a high-stakes national exam leads to higher test scores and lower school dropout, particularly among female students. Our study contributes to this literature by providing evidence of the causal effect of the growing inclusion of LGBTIQ+ characters in TV shows on shaping attitudes. Unlike the positive effects documented in the literature, our findings draw attention to the potential adverse effects that entertainment media can have on attitudes, at least in the short run. Moreover, our rich dataset allows us to study the heterogeneity of the effects by characteristics of textittelenovelas as well as those of viewers, drawing attention to the fact that the effects are likely to be highly heterogeneous across different types of storylines and audiences.

We also contribute to a recent but growing literature that examines the determinants of attitudes toward the LGBTIQ+ community. Previous work examined the effects of social or economic shocks (e.g., Fernández et al., 2019; Brodeur and Haddad, 2021), laws about same-sex marriage (e.g., Sansone, 2019; Aksoy et al., 2020), and interventions aiming to correct misinformation (e.g., Suhay and Garretson, 2018; Aksoy et al., 2022) on attitudes toward the LGBTIQ+ community in societies with strong secular values. Fernández et al. (2019) study the role of the AIDS epidemic in shaping public opinion toward gay people in the United States and find that while approval of same-sex relationships increased more in states with higher AIDS rates, women mainly drive the effects. Also in the United States, Brodeur and Haddad (2021) show that residents of former gold rush counties have more favorable attitudes toward homosexuality. This is because gold rush counties were initially isolated and lacked strong formal institutions, which helped shape pro-LGBTIQ+ attitudes. Sansone (2019) shows that the legalization of same-sex marriage in the United States improved attitudes and lowered discrimination against sexual minorities. Similarly, Aksoy et al. (2020) show that legal relationship recognition in Europe is associated with statistically significant improvements in attitudes toward sexual minorities. Also in Europe, Aksoy et al. (2022) use randomized experiments to study the effects of information on sexual orientation in contexts with strong and widespread anti-gay attitudes (Serbia, Turkey, and Ukraine). Their findings suggest that individuals informed about the economic costs to society of sexual-orientation discrimination are more likely to support equal employment opportunities based on sexual orientation. We contribute to this literature

by providing new evidence on entertainment media's role in shaping attitudes toward the LGBTIQ+ community in societies with strong traditional values, such as LAC.

# 2 Data and Descriptive Statistics

### **LGBTIQ+ Characters in Soap Operas**

Latin American *telenovelas* or soap operas are prime time TV shows broadcast Monday to Friday, with a fixed time, for between 100 and 200 episodes of around one hour each. The shows are melodramas with a beginning and end in which a main couple faces many obstacles but reunites in the last episode (Schmidt, 2002); they develop clear-cut stories with a narrative closure (Lopez, 2002). As the audience closely identifies with the main characters, *telenovelas* can address social and political issues in familiar and even personal terms to the audience. *Telenovelas* are financed directly by TV networks or independent producers that recover the production costs with advertising and design them as entertainment products for all audiences (Lopez, 2002). Moreover, as *Telenovelas* reach every household with a TV and have an audience across all ages, gender, and socioeconomic backgrounds, *Telenovela* stars – both in their fictional character and in real-life – are the mass media icons of the region (Lopez, 2002).

We constructed a novel database with information on all *telenovelas* with LGBTIQ+ characters aired during prime time between 2002 and 2019 in 14 LAC countries: Argentina, Bolivia, Brazil, Chile, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Peru, and Venezuela.¹ Some of these countries produce their own soap operas (e.g., Brazil and Mexico), whereas other air shows produced elsewhere (e.g., countries in Central America). Although *telenovelas* in the region have featured LGBTIQ+ characters as early as the 1970s, most shows with LGBTIQ+ characters in the region aired during the 2000s.² We begin our analysis in 2002, as this is the first year for which we have a measure of attitudes towards the LGBTIQ+ community for most of the countries in our sample.³

For each country, we first identified soap operas with LGBTIQ+ characters by conduct-

<sup>&</sup>lt;sup>1</sup>Although *telenovelas* are shown at all hours of the day, we limit our analysis to those that aired in prime time (between 6 pm and midnight) because these are the ones that garner a larger audience. Within that period, almost 80% of the soap operas in our sample start between 8 pm and 10 pm.

<sup>&</sup>lt;sup>2</sup>In Brazil, one of the region's leading producers of soap operas and the only country for which we have data on soap operas since 1970, 66% of the shows with LGBTIQ+ characters in 1970-2019 aired between 2002 and 2019.

<sup>&</sup>lt;sup>3</sup>Even though the World Values Survey has been asking about views on homosexuality since the 1980s, very few LAC countries participated in that survey. Latinobarómetro and LAPOP introduced questions on this topic in 2002 and 2004, respectively.

ing a search using four types of secondary sources: websites with systematized records on *telenovelas* with LGBTIQ+ characters (e.g., *Acervo Lima* for Brazil), news articles on LGBTIQ+ characters featured in soap operas, opinion articles analyzing the representation of LGBTIQ+ characters in broadcast television, and research papers focusing on the role of LGBTIQ+ characters in television shows. In countries that were less likely to produce *telenovelas* and where secondary sources are scarce,<sup>4</sup> we explored whether the country imported shows produced in LAC and identified whether they aired in prime time.

Once we identified the soap operas with LGBTIQ+ characters in each country, we used specialized websites on local *telenovelas* to record: i) the period in which the show aired in each country, ii) the TV channel and time of the day in which it aired, iii) whether the show was a comedy or a drama, (v) the number of LGBTIQ+ characters featured in the show, v) sexual orientation and gender identity of the LGBTIQ+ characters, and vi) whether the LGBTIQ+ characters were part of the main cast. To the best of our knowledge, there are no systematic repositories of *telenovela* scripts or episodes for the countries in our sample in the 2002-2019 period. As a result, we did not conduct systematic text analysis, image analysis, or web scraping.

We identified 175 telenovelas with LGBTIQ+ characters in 2002-2019, 157 of which aired in only one country (see Appendix Table A.1). On average, the shows run for 162 episodes and air at 8 pm. Regarding genre, 38% of the shows are comedies, 57% are dramas, and the remaining 5% are from another genre (e.g., crime or musical). A third of these shows have only one LGBTIQ+ character, and the remainder had two or more. The majority of the LGBTIQ+ characters are homosexual men. The average show in our sample is a telenovela with two LGBTIQ+ characters, of which 1.65 are homosexuals, 0.24 are bisexuals, and 0.13 are transgender. Around 70% of the characters self-identify as men, and more than 80% belong to the main cast, as opposed to appearing in just a few episodes.

Figures 1 and 2 show that there is considerable variation in the number of *Telenovelas* with LGBTIQ+ characters that air in our period of analysis, both across the region and over time. For example, while the median country has 12.5 soap operas with LGBTIQ+ characters, in El Salvador, there is only one show. In contrast, Brazil has as many as 67 shows. During the early 2000s, few *Telenovelas* with LGBTIQ+ characters were released. Although the numbers increased toward the end of the 2000s, the trends vary substantially across countries (see Figure 3).

### Attitudes toward the LGBTIQ+ Community

<sup>&</sup>lt;sup>4</sup>Bolivia, Dominican Republic, El Salvador, Honduras, and Nicaragua are less likely to produce soap operas. Therefore, none of the above-mentioned sources were available.

Our measures for attitudes toward the LGBTIQ+ community come from the Latin America Public Opinion Project (LAPOP), the Latinobarómetro, and the World Values Survey (WVS). These are public opinion surveys periodically conducted using face-to-face interviews on nationally representative samples of voting-age individuals in various countries in the region.

Across several waves, the surveys elicit the respondents' beliefs about homosexuality. Our main measure of attitudes toward the LGBTIQ+ community is the approval of homosexuals running for office. Specifically, in LAPOP, the respondents are asked:<sup>5</sup>

...thinking of homosexuals, how strongly do you approve or disapprove of such people being permitted to run for public office?

Respondents are given the option of answering on a scale from 1 to 10, where 1 means strongly disapprove and 10 means strongly approve. This question captures the respondent's beliefs around whether or not homosexuals should have equal representation rights in democracies (Inglehart, 2005), and it makes an implicit allusion to their ability to deliver in the capacity of public office.

An alternative measure of attitudes toward the LGBTIQ+ community is the degree to which the respondents believe homosexuality is justifiable. Specifically, the Latinobarómetro and the WVS ask:<sup>6</sup>

... tell me if you believe that homosexuality can ever be justified or never justified or somewhere in between (Latinobarómetro).

... tell me for each of the following actions whether you think it can always be justified, never be justified, or something in between (WVS).

Once again, respondents answer on a scale from 1 to 10, where 1 means never justifiable and 10 means always justifiable. We interpret these questions as reflecting the respondents' moral views on homosexuality.

Figure 4 shows the distribution of responses for the two measures of attitudes toward the LGBTIQ+ community in our sample. On average, respondents have strong negative views on homosexuality. Around 29% of the respondents strongly disapprove of homosexuals running for office, and 39% believe homosexuality is never justifiable. Only a small share of the respondents strongly approve of homosexuals running for office (15%)

<sup>&</sup>lt;sup>5</sup>In the later waves, LAPOP also asks respondents about their approval of same-sex marriage.

<sup>&</sup>lt;sup>6</sup>The WVS also asks respondents about their degree of acceptance of homosexuality and whether they would prefer not to have homosexuals as neighbors. In order to combine data from Latinobarómetro and the WVS to obtain an adequate sample size, we only use the question on the justifiability of homosexuality in our main analysis.

or consider it is always justifiable (9%).<sup>7</sup> As shown in Appendix Figure A.1, tolerance toward the LGBTIQ+ community in LAC has slightly increased over time, shifting views away from the bottom of the distribution and toward the top.

There is also substantial variation in attitudes toward the LGBTIQ+ community across countries. Figure 5 shows the average acceptance of homosexuals running for office across countries at the start of our sample period. The average acceptance of homosexuals running for office is highest in Argentina (6.4 over 10) and lowest in the Dominican Republic (1.8 over 10), with relatively low acceptance of homosexuality in Central America. A similar pattern emerges when looking at whether homosexuality is justifiable (Appendix Figure A.2).

In all of our outcome measures, respondents provide their answers using cards rather than via direct questioning. We believe this data collection method helps attenuate reporting biases and provides a more accurate measure of attitudes and discrimination. A limitation, however, is that homosexuals are only one of the many groups within the LGB-TIQ+ community. Yet, as most of the LGBTIQ+ characters featured within the soap operas in our sample are homosexual, attitudes toward homosexuals are a suitable measure of overall attitudes. Nevertheless, in our analysis, we will examine whether the effects are driven by *telenovelas* with homosexual vs other LGBTIQ+ characters.

## 2.1 Sample and Descriptive Statistics

Our sample consists of 134,540 individual responses on the approval of homosexuals running for office and 71,195 responses on whether homosexuality is justifiable. We begin with 267,364 observations from the LAPOP, the Latinobarómetro, and the World Values Survey country×survey-waves measuring our outcomes. We exclude 7,121 observations for which the outcome is missing. We also had to drop 44,817 observations with no interview date as, without this information, we cannot determine the number of soap operas with LGBTIQ+ characters the respondent was exposed to at the time of the interview. We also dropped the LAPOP waves of El Salvador in 2012 and Bolivia in 2016, as the interview date was only available for 48 observations. Next, we dropped 280 observations from interviews conducted on dates far from the period when most of the fieldwork of a given country×survey-wave took place.<sup>8</sup> Finally, we dropped 9,363 observations for

<sup>&</sup>lt;sup>7</sup>As a point of reference, from 2005-2019, only 13% of the respondents of the WVS in France, Germany, Italy, Netherlands, Norway, Spain, Sweden, and Switzerland considered homosexuality as never justifiable, and 38% considered it always justifiable.

<sup>&</sup>lt;sup>8</sup>We drop respondents who were interviewed in a month where i) less than 10% of the sample was interviewed, and ii) the month of the interview was more than three months apart from the month in which most of the interviews were conducted, or the fieldwork in that country×survey-wave was interrupted for

country×survey-waves for which there are few observations at the level of variation we exploit (we provide more details in Section 3). This leaves us with a final sample of 205,735 respondents, of which 134,540 belong to the LAPOP survey, 57,017 to Latinobarómetro, and 14,178 to the WVS.<sup>9</sup>

We merge these data with our information on *telenovelas* with LGBTIQ+ characters. In particular, we consider the shows on the air in the respondent's country up until the day before the interview.<sup>10</sup>

Table 1 presents the main descriptive statistics for our samples. In Panel A, we present an overview of the respondents for whom we have information on their approval for homosexuals running for office, i.e., the LAPOP sample. In Panel B, we present the analogous descriptive statistics for the respondents for whom we have information on their beliefs around the justifiability of homosexuality, i.e., the Latinobarómetro/WVS sample. Both samples are almost evenly split by gender. The average age of the respondents is 39, although with substantial variation. Most respondents reside in urban areas — 71% in LAPOP and 63% in the Latinobarómetro/WVS samples. The average respondent of the LAPOP (Latinobarómetro/WVS) was exposed to 7.8 (5.2) *telenovelas* with LGBTIQ+characters from 2002 until the day before her interview. About a third of these shows are comedies; the remaining are mostly dramas. In almost all of these *telenovelas* (80%), the LGBTIQ+ characters are part of the main cast. Thus, they are likely to be introduced right from the start of the show.

# 3 Empirical Strategy

To estimate the causal effect of exposure to LGBTIQ+ characters in soap operas on attitudes toward the LGBTIQ+ community, we take advantage of the fact that, in certain countries, new *telenovelas* with LGBTIQ+ characters were introduced during the fieldwork of the LAPOP, the Latinobarómetro and the WVS public opinion surveys. Furthermore, we know precisely when the new show began and when respondents were interviewed. As a result, we can identify respondents interviewed before and after the new *Telenovela* aired.

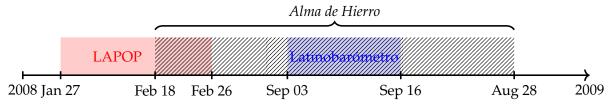
For example, *Alma de Hierro* is a soap opera featuring a gay couple that aired in Mexico from February 18th to August 28th of 2009. That same year, Mexico's LAPOP fieldwork

more than one month.

<sup>&</sup>lt;sup>9</sup>Appendix Tables A.2 and A.3 show the number of observations for each country and year in our final sample in the LAPOP and Latinobarómetro/WVS surveys, respectively.

<sup>&</sup>lt;sup>10</sup>This is because our measure is based on *telenovelas* that air during prime time, which is after 6pm, while the interviews are typically conducted before 6pm. Therefore, we focus on exposure to *telenovelas* up to the day before the interview takes place.

ran from January 27th to February 26th. The Latinobarómetro ran from September 3rd to September 16th.



Before *Alma de Hierro* and since 2002, only one soap opera with an LGBTIQ+ character had aired in Mexico. Thus, the respondents interviewed after *Alma de Hierro* aired were exposed to one additional *telenovela* with LGBTIQ+ characters. As a consequence, they might have different attitudes toward the LGBTIQ+ community than the respondents of the LAPOP Mexico 2008 survey interviewed before February 18th. This is not the case for respondents of the Latinobarómetro survey as, at the time they were interviewed, all of them had been exposed to two *Telenovelas* with LGBTIQ+ characters since 2002.

Figure 6 shows the country×survey-waves in the LAPOP sample in which we have variation in the number of soap operas with LGBTIQ+ characters that aired in the country between 2002 and the day before the respondent was interviewed. To avoid identifying variations coming from a few observations, we drop four country×survey-waves with less than 30 interviewed before or after these *Telenovelas* aired. There are 84 country×survey-waves in our LAPOP sample. We have a new *telenovela* with LGBTIQ+ characters in 8 of the 84 cases. Since the fieldwork of the Latinobarómetro and the WVS are much shorter than that of LAPOP,<sup>11</sup> we have less variation in the Latinobarómetro/WVS sample: 5 out of 66 country×survey-waves (Figure 7). In both samples, the variation is not limited to only a few countries or years.

Table 2 provides an overview of the *telenovelas* that generate the variation in the LAPOP and Latinobarómetro/WVS samples. Approximately 40% of the shows are comedies, and 60% are dramas; this is similar to what we observe in the universe of *telenovelas* with LGBTIQ+ characters aired in our 14 LAC countries since 2002 (see Table 1 above). The majority of the LGBTIQ+ characters in these shows are part of the main cast. Thus they are likely to be introduced from the beginning of the show. This feature is important, as our empirical strategy relies on the introduction of a new *telenovela* with LGBTIQ+ characters during the fieldwork. Therefore, we are implicitly assuming that exposure to the LGBTIQ+ characters happens as soon as the show begins. Note that, even if the LGBTIQ+ characters appear later in the show (i.e., after the first episode), this would only attenuate our estimates and imply that any effects we estimate constitute a lower bound.

<sup>&</sup>lt;sup>11</sup>In our LAPOP sample, the median fieldwork duration is 40 days, as opposed to 21 days in Latinobarómetro/WVS.

To estimate the causal effect of being exposed to additional soap operas with LGBTIQ+ characters, we estimate the following regression:

$$Y_{idct} = \beta_0 + \beta_1 Num \ Telenovelas \ LGBTIQ +_{dc} + \gamma_{ct} + \delta X_i + u_{idct}$$

where  $Y_{idct}$  is the outcome for individual i, interviewed in date d in country c and survey-wave t. Our treatment variable Num Telenovelas  $LGBTIQ+_{dc}$  is the number of soap operas with LGBTIQ+ characters that aired in country c between 2002 and the day before d,  $\gamma_{ct}$  is a battery of country×survey-wave fixed effects, and  $X_i$  are a set of individual controls of age, gender, rurality, and whether the interview was conducted in June – Pride month in LAC.

Our first outcome variable is the respondents' approval of homosexuals running for office from the LAPOP survey. This variable is reported on a scale from 1 to 10, where 1 means strongly disapprove and 10 means strongly approve. To capture changes in attitudes at different points in the distribution, we define our outcome in three ways: i) a dummy for whether the respondent's approval is greater than 5, ii) a dummy for whether the respondent strongly approves, and iii) a dummy for whether the respondent strongly disapproves. We often refer to variable i) as overall approval.

Our second outcome is the respondents' views on whether homosexuality is justifiable from the Latinobarómetro and WVS. This variable is reported on a scale from 1 to 10 where 1 is never justifiable and 10 is always justifiable. We code this variable in an analogous way to our primary outcome: i) a dummy for whether the respondent's beliefs are greater than 5, ii) a dummy for whether the respondent believes homosexuality is always justifiable, and iii) a dummy for whether the respondent believes homosexuality is never justifiable.

Since the way in which LGBTIQ+ characters are portrayed by the media could matter for shaping attitudes toward the LGBTIQ+ community, we conduct alternative estimations capturing the differential impact of LGBTIQ+ characters according to the genre of the show, and the sexual orientation and gender identity of the LGBTIQ+ characters. For the first specification, we define our treatment as the number of comedies and the number of dramas with an LGBTIQ+ character, as comedies tend to portray LGBTIQ+ characters in more stereotypical ways than dramas. In our second specification, we break our treatment into the number of *telenovelas* with a homosexual, bisexual, and transgender character, as viewers may react differently to characters of different sexual orientation or gender identity.

We include country×survey-wave fixed effects ( $\gamma_{ct}$ ) in all of our estimations. These fixed effects restrict our analysis to comparisons within a particular fieldwork. Rather than

comparing individuals in countries with different levels of attitudes toward the LGBTIQ+ community and different levels of exposure to LGBTIQ+ storylines in the media, we compare individuals who were surveyed in the same country and in the same year, but were, by chance, exposed to an additional *Telenovela* with LGBTIQ+ character(s) to those not exposed to this new show. The main advantage of exploiting *within* country×survey-wave variation is that, unlike an estimation relying on variation across countries and over time, we avoid biases arising from differential trends in attitudes toward the LGBTIQ+ community. This is especially relevant as such trends in attitudes are likely to be correlated with unobservable factors also driving the appearance of more LGBTIQ+ characters in media.

Our coefficient of interest ( $\beta_1$ ) captures the effect of being exposed to more LGBTIQ+ characters in the media on attitudes toward homosexuals. Since our variation comes from the airing of a new soap opera within country×survey-waves, we are only capturing the immediate effect of exposure to LGBTIQ+ characters in *telenovelas*. Our identifying assumption is that within a country and survey-wave, the timing of the survey is orthogonal to the introduction of new *telenovelas* with LGBTIQ+ characters and, therefore, orthogonal to other determinants of attitudes toward the LGBTIQ+ community. A potential concern is that the fieldwork timing is such that respondents interviewed on later dates –and thus exposed to more soap operas with LGBTIQ+ characters– are intrinsically less tolerant (e.g., respondents from rural areas). In Section 4.1 we present the results of validity checks that address these concerns. We report standard errors clustered at the country-day level, as this is the level at which the treatment is assigned—i.e., all respondents from the same country and interview day have the same treatment status—(Abadie et al., 2017).

# 4 Results

We present our main results in Table 3. In columns 1 to 3, we look at effects on respondents' approval of homosexuals running for office at 3 points of the distribution: approval broadly defined (column 1), strong approval (column 2), and strong disapproval (column 3). In columns 4 to 6, we conduct the analogous exercise for changes in the justifiability of homosexuality.

Overall, we find that individuals exposed to one more soap opera with LGBTIQ+ characters report *lower* approval for homosexuals running for office. Respondents are 3.6 percentage points less likely to report an approval higher than 5 (on a scale of 1 to 10) for homosexuals running for office. This effect is statistically significant at the 1% level and is equivalent to almost a 10% reduction relative to the sample mean. Similarly,

respondents are 3.6 percentage points less likely to strongly approve (approval of 10 out of 10) of homosexuals running for office (statistically significant at the 5% level), equivalent to almost a 25% reduction over the control mean. We do not find a significant effect on the likelihood that respondents strongly disapprove of homosexuals running for office – the point estimate is -1.3 percentage points but imprecisely estimated at conventional levels.

When looking at the justifiability of homosexuality, we find similar results. Column 4 of Table 3 shows that individuals exposed to an additional soap opera with LGBTIQ+ characters are 4 percentage points less likely to believe that the justifiability of homosexuality is higher than 5 on a scale from 1 to 10. The coefficient is equivalent to a 15% reduction over the mean and statistically significant at the 5% level. Even if exposure to an additional soap opera with LGBTIQ+ characters does not affect the likelihood of reporting that homosexuality is always justifiable (column 5), it does increase the likelihood of reporting that homosexuality is never justifiable by 6.8 percentage points (column 6). This effect is equivalent to a 17% increase over the mean and is statistically significant at the 1% level.

Our findings provide causal evidence of a backlash effect in the short term. Individuals exposed to more soap operas with LGBTIQ+ characters as of the day they were surveyed are less tolerant of the LGBTIQ+ community compared to individuals surveyed on previous days.<sup>12</sup>

Next, we delve into the drivers of the results. In Table 4 we explore whether the backlash is due to the way in which the LGBTIQ+ characters are portrayed. In Panel A, we break down the treatment by the type of show: comedies or drama. Although we do not have access to scripts or episode repositories of *Telenovelas*, our qualitative work indicates that in comedies, LGBTIQ+ characters are often caricatured and stereotyped. Thus, comedies represent the LGBTIQ+ community more stereotypically than dramas.<sup>13</sup>

All in all, we find that comedies drive the backlash in acceptance of homosexuals running for office. Exposure to an additional comedy with LGBTIQ+ characters leads

<sup>&</sup>lt;sup>12</sup>We explore whether our results are driven by differential attrition. To do so, we estimate our main specification, using as the outcome variable a dummy for whether the respondent has a missing value or did not provide an answer to the question. Our treatment has no statistically significant effect on the likelihood of not providing an answer to the question on acceptance of homosexuals running for office in the LAPOP sample (coefficient of 0.001 with a p-value of 0.656) or on the justifiability of homosexuality in the Latinobarómetro and WVS sample (coefficient of 0.011 with a p-value of 0.249).

<sup>&</sup>lt;sup>13</sup>Another plausible dimension of representation is romantic interactions between LGBTIQ+ characters. For romantic relationships between LGBTIQ+ characters to arise, there must be two or more LGBTIQ+ characters in the show. Thus, we could potentially break our treatment into *telenovelas* with one LGBTIQ+ character and *telenovelas* with more than one LGBTIQ+ character. Unfortunately, as seen in Table 2, the handful of *telenovelas* with LGBTIQ+ characters that induce our variation do not allow us to make a comparison along this dimension.

to a drop in overall approval and strong approval of homosexuals running for office by 7.8 and 8.3 percentage points respectively. Both estimates are statistically significant at the 1% level. On the other hand, exposure to an additional drama with LGBTIQ+ characters does not significantly affect attitudes toward homosexuals running for office, and we can reject the null hypothesis that the coefficients from comedies and dramas are statistically equivalent. In columns 4 to 6 of Table 4, we conduct the analogous exercise for the justifiability of homosexuality using the Latinobarómetro and WVS sample. Exposure to an additional comedy with LGBTIQ+ characters reduces overall justifiability of homosexuality by 5.3 percentage points, but the effect is not statistically distinguishable from that of an additional drama. Our results also point out that, at the bottom of the distribution, dramas seem to increase the likelihood of reporting that homosexuality is never justifiable. Yet, we cannot reject the null hypothesis that this effect is equivalent to that of comedies.

We then explore whether different sexual orientation and gender identity of the LGB-TIQ+ characters induce different effects on attitudes. In Panel B of Table 4, we report the results breaking down our main variable by homosexual, bisexual, and transgender LGB-TIQ+ characters. When examining the impact on the approval of homosexuals running for office, we can only distinguish between homosexual and bisexual characters, as none of the shows that induce our identifying variation in the LAPOP sample have transgender characters (Table 2). Overall, we find a strong backlash among individuals exposed to an additional soap opera with a homosexual character. In contrast, individuals exposed to an additional soap opera with a bisexual character report *higher* acceptance. For instance, the likelihood of reporting approval of homosexuals running for office higher than 5 is 9.1 percentage points higher for respondents exposed to an additional soap opera with a bisexual character and 4.8 lower for respondents exposed to an additional soap opera with a homosexual character. We see similar results when looking at the justifiability of homosexuality.

To understand what type of individuals are more likely to react to the portrayal of LGB-TIQ+ characters in *telenovelas*, we test for heterogeneous effects across several dimensions pertaining to respondents' characteristics: whether the respondent is female, aged 40 or above, lives in an urban area, attends religious services at least once a month, or identifies as being politically right-wing (7 or higher on a scale of 1 (left-wing) to 10 (right-wing)). In Table 5, we present the results of these estimations using as the outcome variable overall approval of homosexuals running for office (approval higher than 5) among the LAPOP sample. Our findings are twofold. First, we document that traditionally more conservative individuals (i.e., males, persons aged 40 or above, respondents from rural

areas, and those who attend religious services frequently) have lower approval of homosexuals running for office. Second, we find that the backlash from exposure to *telenovelas* with LGBTIQ+ characters is stronger for more traditional groups. We note, however, that even if the differences between these groups are statistically significant, they are relatively small. For example, general approval of homosexuals running for office drops by 3.5 percentage points for respondents who attend religious services at least once a month and 3.3 percentage points for those who attend religious services less frequently or not at all. Although respondents who identify as having a right-wing ideology are less likely to approve of homosexuals running for office, we do not find heterogeneous effects along this dimension. We find similar results when using strong approval as the outcome (Appendix Table A.4), as well as when we use the justifiability of homosexuality as the outcome (Appendix Table A.5). Our results suggest that beyond the polarization of already conservative individuals, exposure to LGBTIQ+ characters in the media may also induce a negative response among relatively more progressive groups.

We also explore whether our results are driven by exposure to LGBTIQ+ characters or by the salience of the LGBTIQ+ topic induced by telenovelas with LGBTIQ+ characters. To do so, we exploit the end of telenovelas with LGBTIQ+ characters during the fieldwork of the public opinion surveys we use. We have such variation in seven country×survey-waves of the LAPOP sample and one of the country×survey-waves of the Latinobaómetro/WVS sample. If salience drives the backlash, once a soap opera with LGBTIQ+ characters goes off the air, attitudes toward the LGBTIQ+ community should improve and return to their original state. In Table 6 we show that respondents interviewed after the end of a telenovela with LGBTIQ+ characters do not have different levels of overall approval or strong approval of homosexuals running for office than respondents interviewed before the show goes off the air. Yet, when looking at the bottom of the approval distribution, we find that respondents interviewed after the end of a telenovela with LGBTIQ+ characters are 2.7 percentage points less likely to strongly disapprove homosexuals running for office. This suggests that, although we do not find evidence that salience rather than exposure drives our main findings, the salience mechanism may also be at work, at least partly and at the lower end of the distribution of approval. We leave the challenge of disentangling the two effects for future research.

<sup>&</sup>lt;sup>14</sup>When using the data from Latinobarómetro and WVS we only test for heterogeneous effects by gender, age, urban/rural, and ideology, as there is no variable measuring frequency of attending religious services. We find a larger backlash for males, respondents aged 40 or above, and respondents with a right-wing ideology.

### 4.1 Validity Checks

The key identifying assumption of our empirical strategy described in Section 3 is that, within a given country×survey-wave, there are no unobservable determinants of attitudes toward LGBTIQ+ individuals that correlate with the appearance of soap operas with LGBTIQ+ characters.

A valid concern is that the timing of the fieldwork is such that respondents interviewed on later dates – and thus exposed to more soap operas with LGBTIQ+ characters – are intrinsically different, and these differences may be associated with them being less tolerant. To address this issue, in Table 7 we show the results of a set of regressions using the respondents' characteristics as outcomes and the cumulative number of soap operas with LGBTIQ+ characters (our main regressor) and country×survey-wave fixed effects as independent variables. In the estimations using the LAPOP sample (columns 1-5), respondents exposed to an additional *telenovela* with LGBTIQ+ characters do not differ in their likelihood of being a woman, living in an urban area, being religious, or being right-wing. We do observe a statistically significant difference in age as, on average, respondents exposed to an additional soap opera with LGBTIQ+ characters are 1.099 years younger. As younger people are, on average, more likely to approve of homosexuals running for office, this finding would go in the opposite direction of the backlash we document which, if anything, would imply that the backlash effect we estimate may be a lower bound.

When using data from Latinobarómetro/WVS, we find that respondents who are exposed to more *telenovelas* with LGBTIQ+ characters do not differ in their age, their likelihood of living in an urban area, their likelihood of identifying as right-wing, or their likelihood of being interviewed during Pride month. There is a slight difference in the likelihood of being a woman, as individuals exposed to an additional *Telenovela* are 2.3 percentage points less likely to be a woman. Importantly, our main results are practically unchanged if we remove our controls from the estimation (see Appendix Table A.6).

Next, we perform a placebo exercise examining the effect of exposure to soap operas with LGBTIQ+ characters on the approval of government critics running for office. Suppose respondents interviewed toward the end of the fieldwork are less tolerant. In that case, we would expect that the exposure to an additional soap opera with LGBTIQ+ characters negatively correlates with the approval of government critics running for office. <sup>16</sup>

<sup>&</sup>lt;sup>15</sup>We do not estimate the regressions with being interviewed in Pride month as the outcome variable in the LAPOP sample, as there is no variation once we include country×survey-wave fixed effects.

<sup>&</sup>lt;sup>16</sup>We use the approval of government critics running for office as an outcome as the question is available for all the waves of LAPOP in our sample, except for Dominican Republic in 2004. As with the approval of homosexuals running for office, the approval of government critics running for office is also lower among

In Table 8 we present the results of estimating our main specification using this placebo outcome. Reassuringly, we find small and statistically insignificant effects. For instance, we can reject a drop larger than 2 percentage points (5%) in the likelihood of having an approval higher than 5 for government critics running for office.

We also perform a placebo using the agreement with a statement of men being better political leaders than women. Our rationale is that if respondents interviewed at the end of the fieldwork have more conservative views, they should also be more likely to agree with this statement. Given that the question is available in the three public opinion surveys we use, we pool all the observations together. As shown in Appendix Table A.7, exposure to more soap operas with LGBTIQ+ characters does not affect strong agreement or strong disagreement with the statement that men are better political leaders than women. We do find that exposure to an additional *Telenovela* with LGBTIQ+ characters decreases agreement with the statement by 2.7 percentage points. This, if anything, goes in the opposite direction of the backlash we document, further strengthening our results.

### 5 Conclusion

Recent years have seen a rise in the number of LGBTIQ+ characters depicted in TV series in many countries. In this paper, we examine how this increase in exposure affects attitudes toward the LGBTIQ+ community in countries within the LAC region. In order to identify the causal effect of exposure to *telenovelas* (soap operas) with LGBTIQ+ characters, we compare the attitudes of respondents interviewed before a new *telenovela* with an LGBTIQ+ character aired with those interviewed after the show is introduced on TV. Our findings imply that, in the short term, exposure to more *telenovelas* with LGBTIQ+ characters lowers tolerance toward the LGBTIQ+ community.

We find that the type of representation matters. In particular, the sexual orientation of the characters and the genre of the show (i.e., whether it is a comedy or drama) are important. The negative effect seems to be driven mainly by the depiction of homosexual characters (as opposed to bisexual ones) and comedies, where the depiction of LGBTIQ+characters is more likely to be stereotyped. Furthermore, the backlash effect is stronger for traditionally more conservative individuals such as males, older individuals, people living in rural areas, and those who regularly attend religious services.

Our findings open a discussion around the ambiguous effects of further representation

groups of people who tend to be more conservative.

<sup>&</sup>lt;sup>17</sup>The variable that captures agreement with a statement of men being better political leaders than women is missing for half of our sample as several waves of LAPOP and Latinobarómetro do not ask the question.

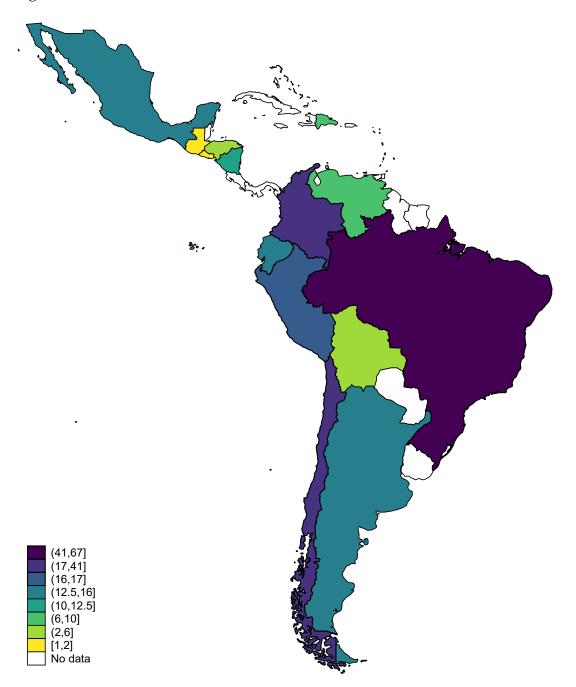
of minorities in the media. Not only are there potential adverse effects of modes of representation that reproduce the existing stereotypes, but traditionally more conservative individuals can also have a negative response to any form of increased representation. In the case of *Telenovelas*, we draw attention to the negative effect of exposure on attitudes toward the LGBTIQ+ community (at least in the short term) and highlight the potential heterogeneity of responses to such exposure. Our findings are in line with recent reactions to the depiction of a gay couple in a popular children's TV show, Peppa Pig, which faced strong opposition from certain parent groups and politicians while being applauded by others (Giuffrida, 2022; Iftikhar, 2022). Further research is needed to shed light on the long-term effects of such exposure on attitudes.

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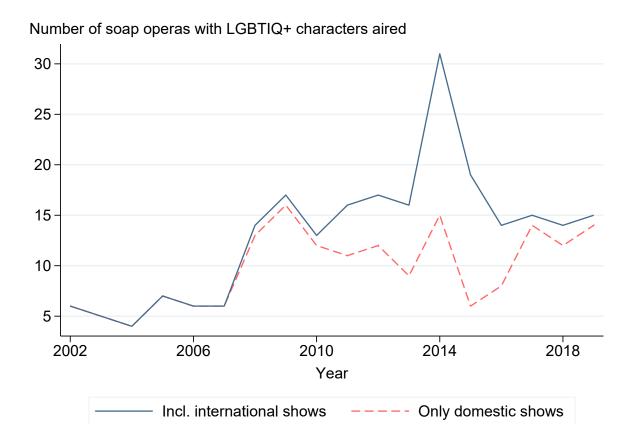
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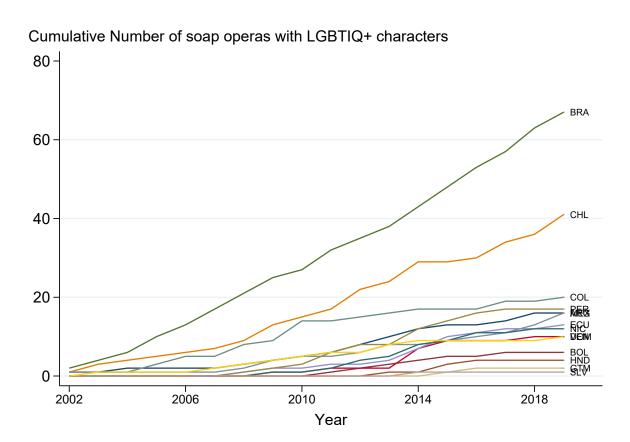
*Notes*: This figure shows the number of *telenovelas* with LGBTIQ+ characters that aired in each of the countries in our sample during 2002-2019. Countries in white are those for which we have no data (i.e., they are not part of our sample).

Figure 2: Number of Telenovelas with LGBTIQ+ Characters Aired in 2002-2019



*Notes*: This figure shows the total number of *telenovelas* with LGBTIQ+ characters that were released in each year of 2002-2019 in the countries of our sample. The solid line includes international productions (i.e., if a show was aired in multiple countries, each of these show-country observations is counted), whereas the dashed line only considers new local productions.

Figure 3: Cumulative Number of *Telenovelas* with LGBTIQ+ Characters Aired in 2002-2019, by Country



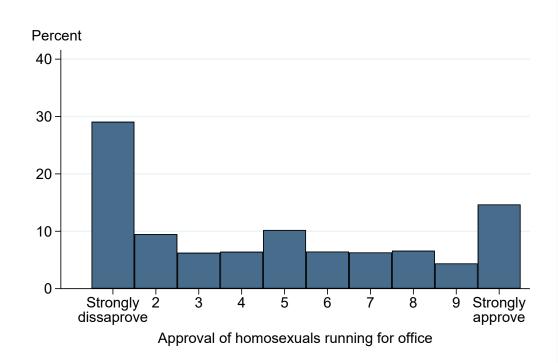
*Notes*: This figure shows the cumulative number of *telenovelas* with LGBTIQ+ characters that was aired in each of the countries in our sample in 2002-2019.

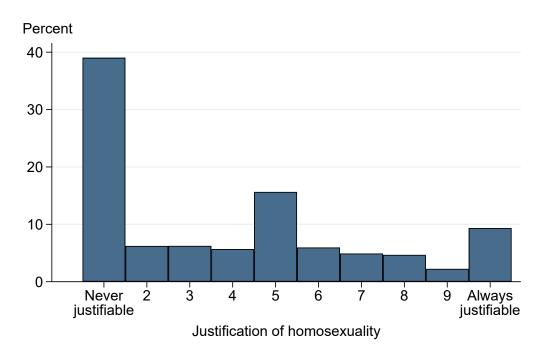
Table 1: Descriptive Statistics

|  | Mean           | SD     | Min    | Max     | N       |
|--|----------------|--------|--------|---------|---------|
| Panel A: LAPOP Sample (Approval for Homosexuals Running for Office             | )              |        |        |         |         |
| Demographic and survey characteristics   |                |        |        |         |         |
| Female   | 0.508          | 0.500  | 0.000  | 1.000   | 134,527 |
| Age  | 39.122         | 15.942 | 16.000 | 112.000 | 134,282 |
| Urban  | 0.704          | 0.457  | 0.000  | 1.000   | 134,540 |
| Attitudes toward the LGBTIQ+ Community   |                |        |        |         |         |
| Approval of homosexuals' right to run for office (1-10)                        | 4.662          | 3.316  | 1.000  | 10.000  | 134,540 |
| Telenovelas with LGBTI+ character(s) on air between 2002 and the day before    |                |        |        |         |         |
| Number of soaps with LGBTIQ+ characters  | 7.208          | 9.874  | 0.000  | 55.000  | 134,540 |
| Number of comedies with LGBTIQ+ characters                                     | 2.293          | 3.672  | 0.000  | 19.000  | 134,540 |
| Number of dramas with LGBTIQ+ characters                                       | 4.552          | 6.295  | 0.000  | 40.000  | 134,540 |
| Number of other genres with LGBTIQ+ characters                                 | 0.362          | 0.801  | 0.000  | 3.000   | 134,540 |
| Number of soaps more than one LGBTIQ+ character                                | 4.570          | 6.995  | 0.000  | 42.000  | 134,540 |
| Number of soaps with homosexual characters                                     | 6.357          | 8.836  | 0.000  | 48.000  | 134,540 |
| Number of soaps with bisexual characters                                       | 1.706          | 2.769  | 0.000  | 18.000  | 134,540 |
| Number of soaps with trans characters  | 0.676          | 1.220  | 0.000  | 8.000   | 134,540 |
| Number of soaps with a LGBTIQ+ character in main cast                          | 6.492          | 9.195  | 0.000  | 52.000  | 134,540 |
| Panel B: Latinobarómetro/WVS Sample (Justifiability of Homosexuality)          |                |        |        |         |         |
| Demographic and survey characteristics   |                |        |        |         |         |
| Female   | 0.515          | 0.500  | 0.000  | 1.000   | 71,195  |
| Age  | 39.114         | 16.056 | 16.000 | 99.000  | 71,192  |
| Urban  | 0.627          | 0.483  | 0.000  | 1.000   | 71,195  |
| Attitudes towards the LGBTIQ+ Community  |                |        |        |         |         |
| Justifiability of homosexuality (1-10)   | 3.925          | 3.054  | 1.000  | 10.000  | 71,195  |
| Telenovelas with LGBTI+ character(s) on air between 2002 and the day before    |                |        |        |         |         |
| Number of soaps with LGBTIQ+ characters  | 4.822          | 7.820  | 0.000  | 40.000  | 71,195  |
| Number of comedies with LGBTIQ+ characters                                     | 1.556          | 2.381  | 0.000  | 9.000   | 71,195  |
| Number of dramas with LGBTIQ+ characters                                       | 2.884          | 5.238  | 0.000  | 28.000  | 71,195  |
| Number of other genres with LGBTIQ+ characters                                 | 0.383          | 0.767  | 0.000  | 3.000   | 71,195  |
| Number of soaps more than one LGBTIQ+ character                                | 3.206          | 5.763  | 0.000  | 31.000  | 71,195  |
| Number of soaps with homosexual characters                                     | 4.205          | 6.817  | 0.000  | 34.000  | 71,195  |
|  |                | 2.295  | 0.000  | 13.000  | 71,195  |
|  | 0.965          |        |        |         |         |
| Number of soaps with bisexual characters Number of soaps with trans characters | 0.965<br>0.565 | 1.125  | 0.000  | 7.000   | 71,195  |

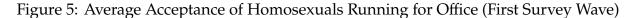
*Notes:* Panel A provides descriptive statistics for our sample of LAPOP respondents in 2004-2019 in Argentina, Bolivia, Brazil, Chile, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Peru, and Venezuela. In Panel B, we present descriptive statistics for respondents of Latinobarómetro and WVS of the same countries in 2002-2019. In both cases, we exclude observations with a missing interview date or a missing value in the main outcome variable (approval of homosexuals' right to run for office in Panel A, and justifiability of homosexuality in Panel B).

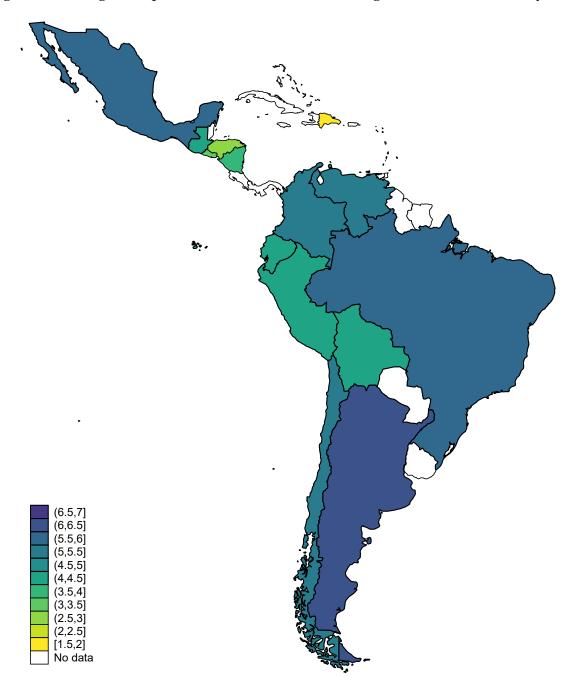
Figure 4: Distribution of Attitudes toward the LGBTIQ+ Community





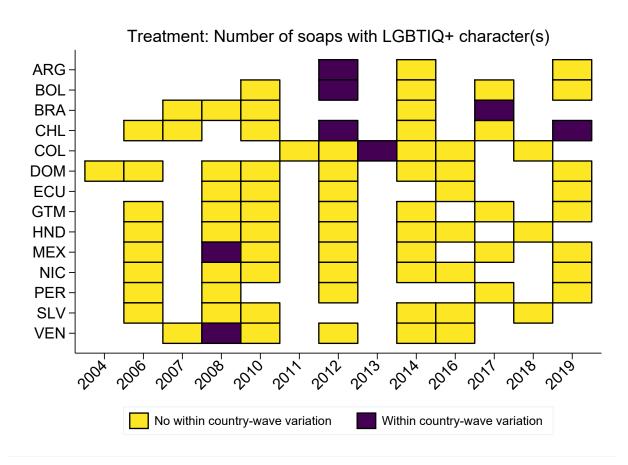
*Notes*: These figures shows the distribution of attitudes toward the LGBTIQ+ community in our sample. In the top figure, the sample is composed of respondents of the LAPOP survey in 2004-2019, and the indicator measures the degree to which respondents approve of homosexuals running for office. In the bottom figure, the sample is composed of respondents of the Latinobarómetro and WVS surveys in 2002-2019, and the indicator measures agreement with whether homosexuality is justifiable.





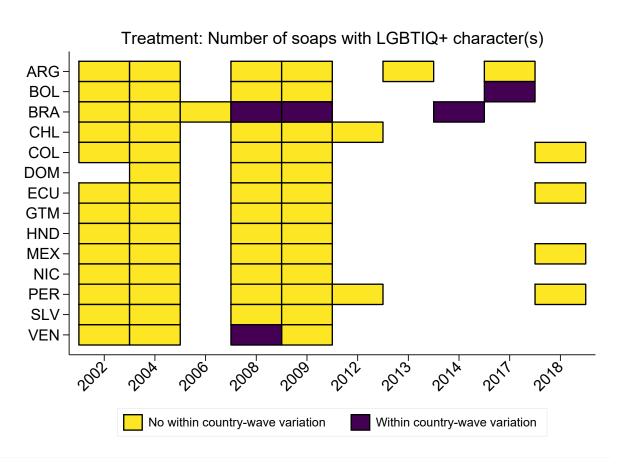
*Notes*: This figure shows the average acceptance of homosexuals running for office in each of the countries in our LAPOP sample. This indicator is measured on a scale from 1 to 10, where 1 is strongly disapprove, and 10 is strongly approve. For each country, we take the first year in which this question was asked, and calculate averages using the corresponding sampling weights. Countries in white are those that are not part of our sample.

Figure 6: Within Country-Wave Variation in Treatment Status in LAPOP Surveys



*Notes*: This figure depicts the within country-survey-wave variation in treatment status in the LAPOP surveys. The treatment variable is the number of *telenovelas* with an LGBTIQ+ character that aired in the respondent's country between 2002 and the day before the survey. Country-wave observations with no survey data or with no data on interview dates are shown in white. Country-wave observations for which there is no within-country variation in treatment status are shown in yellow, and those for which there is such a variation are shown in purple.

Figure 7: Within Country-Wave Variation in Treatment Status in Latinobarómetro and the WVS



*Notes*: This figure depicts the within country-survey-wave variation in treatment status in the Latinobarómetro and WVS surveys. The treatment variable is the number of *telenovelas* with an LGBTIQ+ character that aired in the respondent's country between 2002 and the day before the survey. Country-wave observations with no survey data or with no data on interview dates are shown in white. Country-wave observations for which there is no within-country variation in treatment status are shown in yellow, and those for which there is such a variation are shown in purple.

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Table 2: *Telenovelas* generating the variation

|                             |              | Year      | Air date       | Num. of episodes |         | Number of LGBTIQ+ Characters |           |            |          |       |       |     |
|-----------------------------|--------------|-----------|----------------|------------------|---------|------------------------------|-----------|------------|----------|-------|-------|-----|
| Telenovela                  | Country      |           |                |                  | s Genre | Total                        | Main cast | Homosexual | Bisexual | Trans | Woman | Man |
| Panel A: LAPOP Sample (A    | Approval for | Homos     | sexuals Runnii | ng for Office)   |         |                              |           |            |          |       |       |     |
| Graduados                   | Argentina    | 2012      | 03/12/2012     | 178              | Comedy  | 2                            | 2         | 2          | 0        | 0     | 0     | 2   |
| Insensato corazón           | Bolivia      | 2012      | 04/16/2012     | 150              | Drama   | 7                            | 5         | 7          | 0        | 0     | 1     | 6   |
| Os dias eram assim          | Brazil       | 2017      | 04/17/2017     | 88               | Drama   | 2                            | 2         | 2          | 0        | 0     | 0     | 2   |
| Reserva de familia          | Chile        | 2012      | 03/19/2012     | 123              | Drama   | 1                            | 1         | 1          | 0        | 0     | 1     | 0   |
| Juegos de poder             | Chile        | 2019      | 03/11/2019     | 161              | Drama   | 3                            | 3         | 2          | 1        | 0     | 0     | 3   |
| Los graduados               | Colombia     | 2013      | 09/18/2013     | 257              | Comedy  | 2                            | 2         | 2          | 0        | 0     | 0     | 2   |
| Alma de hierro              | Mexico       | 2008      | 02/18/2008     | 393              | Comedy  | 2                            | 2         | 2          | 0        | 0     | 0     | 2   |
| Nadie me dirá como quererte | Venezuela    | 2008      | 09/23/2008     | 160              | Drama   | 2                            | 2         | 2          | 0        | 0     | 2     | 0   |
| Panel B: Latinobarómetro/   | WVS Sample   | e (Justif | ability of Hor | nosexuality)     |         |                              |           |            |          |       |       |     |
| Imperio                     | Bolivia      | 2017      | 01/23/2017     | 170              | Drama   | 3                            | 3         | 2          | 1        | 0     | 0     | 3   |
| Três irmãs                  | Brazil       | 2008      | 09/15/2008     | 179              | Comedy  | 2                            | 2         | 1          | 1        | 0     | 0     | 2   |
| Cama de gato                | Brazil       | 2009      | 10/05/2009     | 161              | Drama   | 1                            | 0         | 0          | 1        | 0     | 0     | 1   |
| Geração Brasil              | Brazil       | 2014      | 05/05/2014     | 147              | Comedy  | 1                            | 1         | 0          | 0        | 1     | 0     | 1   |
| Nadie me dirá como quererte | Venezuela    | 2008      | 09/23/2008     | 160              | Drama   | 2                            | 2         | 2          | 0        | 0     | 2     | 0   |

*Notes:* This table details the main characteristics of the *telenovelas* inducing the variation in our sample.

Table 3: Impact of Exposure to Telenovelas with LGBTIQ+ Characters on Attitudes toward the LGBTIQ+ Community

|   | Approval of he | omosexuals       | running for office     | Justifiability of homosexuality |              |              |  |
|---|----------------|------------------|------------------------|---------------------------------|--------------|--------------|--|
|   | Approval > 5   | Strongly approve | Strongly<br>disapprove | Justifiability > 5              | Always       | Never        |  |
| Number of soaps with LGBTIQ+ characters | -0.036***      | -0.036**         | -0.013                 | -0.040**                        | -0.008       | 0.068***     |  |
|   | (0.014)        | (0.015)          | (0.012)                | (0.019)                         | (0.010)      | (0.022)      |  |
| Observations R <sup>2</sup>             | 134,540        | 134,540          | 134,540                | 71,195                          | 71,195       | 71,195       |  |
|   | 0.102          | 0.074            | 0.081                  | 0.087                           | 0.052        | 0.179        |  |
| Dependent variable mean                 | 0.385          | 0.147            | 0.291                  | 0.272                           | 0.093        | 0.390        |  |
| Controls                                | ✓              | ✓                | ✓                      | ✓                               | ✓            | ✓            |  |
| Country-Wave FE                         | $\checkmark$   | $\checkmark$     | $\checkmark$           | $\checkmark$                    | $\checkmark$ | $\checkmark$ |  |

Notes: The sample in columns 1-3 is composed of LAPOP respondents in the 14 countries in our sample in 2004-2019, and the sample in columns 4-6 is composed of Latinobarómetro and WVS respondents in the 14 countries in our sample in 2002-2019. Our dependent variable in column 1 is a dummy for whether the respondent's agreement with homosexuals running for office is greater than 5 (on a scale of 1 to 10). In column 2 (3), our dependent variable is a dummy for whether the respondent strongly approves (disapproves) of homosexuals running for office. In column 4 the dependent variable is a dummy for whether the respondent believes that justification for homosexuality is greater than 5 (on a scale of 1 to 10). In column 5 (6), our dependent variable is a dummy for whether the respondent believes homosexuality can always (never) be justified. Our main regressor measures the number of *Telenovelas* with an LGBTIQ+ character that aired in the respondent's country between 2002 and the day before the survey. All specifications include country×survey-wave fixed effects, and control for gender, age, whether the respondent lives in an urban area, and whether the interview took place in a Pride month (June). Standard errors clustered by country-day in parentheses.

Table 4: Impact of Exposure to *Telenovelas* with LGBTIQ+ Characters on Attitudes toward the LGBTIQ+ Community, by Show Characteristics

|   | Approval of he | omosexuals       | running for office     | Justification of homosexuality |              |          |  |
|---|----------------|------------------|------------------------|--------------------------------|--------------|----------|--|
|   | Approval > 5   | Strongly approve | Strongly<br>disapprove | Justification > 5              | Always       | Never    |  |
| Panel A: Type of soap opera                                   |                |                  |                        |                                |              |          |  |
| Number of comedies with LGBTIQ+ characters                    | -0.078***      | -0.083***        | -0.006                 | -0.053**                       | -0.008       | 0.027    |  |
|   | (0.021)        | (0.031)          | (0.019)                | (0.027)                        | (0.016)      | (0.029)  |  |
| Number of dramas with LGBTIQ+ characters                      | -0.015         | -0.012           | -0.017                 | -0.033                         | -0.007       | 0.092*** |  |
| ~   | (0.017)        | (0.015)          | (0.014)                | (0.025)                        | (0.013)      | (0.029)  |  |
| Observations  | 134,540        | 134,540          | 134,540                | 71,195                         | 71,195       | 71,195   |  |
| Dependent variable mean                                       | 0.385          | 0.147            | 0.291                  | 0.272                          | 0.093        | 0.390    |  |
| P-value (comedy=drama)  | 0.021          | 0.039            | 0.634                  | 0.578                          | 0.960        | 0.114    |  |
| Controls  | ✓              | ✓                | $\checkmark$           | ✓                              | $\checkmark$ | ✓        |  |
| Country-Wave FE   | ✓              | ✓                | ✓                      | ✓                              | ✓            | ✓        |  |
| Panel B: Sexual and gender orientations of LGBTIQ+ characters |                |                  |                        |                                |              |          |  |
| Number of soaps with homosexual character                     | -0.048***      | -0.041**         | -0.010                 | -0.122***                      | -0.043***    | 0.141*** |  |
| •   | (0.015)        | (0.016)          | (0.013)                | (0.028)                        | (0.013)      | (0.031)  |  |
| Number of soaps with bisexual character                       | 0.091***       | 0.039            | -0.022                 | 0.084**                        | 0.042***     | -0.062*  |  |
|   | (0.027)        | (0.037)          | (0.021)                | (0.038)                        | (0.016)      | (0.035)  |  |
| Number of soaps with trans character                          |                |                  |                        | -0.033                         | -0.018       | 0.043    |  |
| 1   |                |                  |                        | (0.035)                        | (0.011)      | (0.057)  |  |
| Observations  | 134,540        | 134,540          | 134,540                | 71,195                         | 71,195       | 71,195   |  |
| Dependent variable mean                                       | 0.385          | 0.147            | 0.291                  | 0.272                          | 0.093        | 0.390    |  |
| P-value (homosexual=bisexuall)                                | 0.000          | 0.089            | 0.708                  | 0.001                          | 0.001        | 0.001    |  |
| P-value (bisexual = trans)                                    |                |                  |                        | 0.025                          | 0.002        | 0.117    |  |
| P-value (homosexual = trans)                                  |                |                  |                        | 0.048                          | 0.151        | 0.135    |  |
| Controls  | ✓              | ✓                | ✓                      | ✓                              | ✓            | ✓        |  |
| Country-Wave FE   | ✓              | ✓                | ✓                      | ✓                              | ✓            | ✓        |  |

Notes: The sample in columns 1-3 is composed of LAPOP respondents in the 14 countries in our sample in 2004-2019, and the sample in columns 4-6 is composed of Latinobarómetro and WVS respondents in the 14 countries in our sample in 2002-2019. Our dependent variable in column 1 is a dummy for whether the respondent's agreement with homosexuals running for office is greater than 5 (on a scale of 1 to 10). In column 2 (3), our dependent variable is a dummy for whether the respondent strongly approves (disapproves) of homosexuals running for office. In column 4 the dependent variable is a dummy for whether the respondent believes that justification for homosexuality is greater than 5 (on a scale of 1 to 10). In column 5 (6), our dependent variable is a dummy for whether the respondent believes homosexuality can always (never) be justified. In Panel A, our main regressors measure the number of comedy and drama Telenovelas with an LGBTIQ+ character that aired in the respondent's country between 2002 and the day before the survey. In Panel B, our main regressors measure the number of Telenovelas with a bisexual, homosexual, or trans character that aired in the respondent's country between 2002 and the day before the survey. All specifications include country×survey-wave fixed effects, and control for gender, age, whether the respondent lives in an urban area, and whether the interview took place in a Pride month (June). Standard errors clustered by country-day in parentheses.

Table 5: Impact of Exposure to *Telenovelas* with LGBTIQ+ Characters on Attitudes toward the LGBTIQ+ community, Heterogeneous Effects

|   | Approval of Homosexuals Running for Office |                                    |                                    |                                    |                                    |  |  |  |
|---|--|------------------------------------|------------------------------------|------------------------------------|------------------------------------|--|--|--|
|   |  | A                                  | pproval >                          | 5                                  |                                    |  |  |  |
| Number of soaps with LGBTIQ+ characters   | -0.036***<br>(0.014)                       | -0.036***<br>(0.014)               | -0.037***<br>(0.014)               | -0.033**<br>(0.014)                | -0.029*<br>(0.015)                 |  |  |  |
| Num. soaps with LGBTIQ+ characters $\times$ Female  | 0.001***<br>(0.000)                        |                                    |                                    |                                    |                                    |  |  |  |
| Num. soaps with LGBTIQ+ characters $\times$ Age $\geq$ 40                                   |  | -0.002***<br>(0.000)               |                                    |                                    |                                    |  |  |  |
| Num. soaps with LGBTIQ+ characters $\times$ Urban   |  |                                    | 0.001**<br>(0.000)                 |                                    |                                    |  |  |  |
| Num. soaps with LGBTIQ+ characters $\times$ Attends religious services often                |  |                                    |                                    | -0.002***<br>(0.000)               |                                    |  |  |  |
| Num. soaps with LGBTIQ+ characters $\times$ Right wing                                      |  |                                    |                                    |                                    | -0.000<br>(0.000)                  |  |  |  |
| Female  | 0.021***<br>(0.003)                        |                                    |                                    |                                    |                                    |  |  |  |
| $Age \ge 40$  |  | -0.053***<br>(0.003)               |                                    |                                    |                                    |  |  |  |
| Urban   |  |                                    | 0.062***<br>(0.004)                |                                    |                                    |  |  |  |
| Attends religious services often  |  |                                    |                                    | -0.037***<br>(0.004)               |                                    |  |  |  |
| Right-wing  |  |                                    |                                    |                                    | -0.007*<br>(0.004)                 |  |  |  |
| Observations R <sup>2</sup> Dependent variable mean P-value (sum of treatment coefficients) | 134,527<br>0.102<br>0.385<br>0.012         | 134,282<br>0.100<br>0.385<br>0.006 | 134,540<br>0.102<br>0.385<br>0.009 | 129,416<br>0.088<br>0.398<br>0.011 | 108,917<br>0.085<br>0.402<br>0.050 |  |  |  |
| Controls Country-Wave FE  | √<br>√                                     | √<br>√                             | √<br>√                             | ✓<br>✓                             | √<br>✓                             |  |  |  |

Notes: The sample is composed of LAPOP respondents in the 14 countries in our sample in 2004-2019. Our dependent variable is a dummy for whether the respondent's agreement with homosexuals running for office is 6 or higher (on a scale of 1 to 10). In each column, our main regressors are the number of *Telenovelas* with an LGBTIQ+ character that aired in the respondent's country between 2002 and the day before the survey, and the interaction of this regressor with a characteristic of the respondent. We consider that a respondent attends religious services frequently if he/she attends once a month or more. We consider a respondent as right-wing if he/she places him/herself on a scale of 7 or higher on the spectrum of left to right wing (where 1 is left-wing, and 10 is right-wing). All specifications include country×survey-wave fixed effects, and control for gender, age, whether the respondent lives in an urban area, and whether the interview took place in a Pride month (June). In column 4 we also control for whether the respondent attends religious services frequently, and in column 5 we also control for whether the respondent is right-wing. Standard errors clustered by country-day in parentheses.

Table 6: Impact of a Telenovelas with LGBTIQ+ Characters Going Off Air on Attitudes toward the LGBTIQ+ Community

|   | Approval of h | omosexuals       | running for office     | Justifiability of homosexuality |              |              |  |
|---|---------------|------------------|------------------------|---------------------------------|--------------|--------------|--|
|   | Approval > 5  | Strongly approve | Strongly<br>disapprove | Justifiability > 5              | Always       | Never        |  |
| Interview after end of a soap with LGBTIQ+ characters | 0.009         | -0.013           | -0.027***              | -0.036                          | -0.015       | 0.020        |  |
|   | (0.013)       | (0.010)          | (0.009)                | (0.023)                         | (0.018)      | (0.023)      |  |
| Observations R <sup>2</sup>                           | 134,540       | 134,540          | 134,540                | 71,195                          | 71,195       | 71,195       |  |
|   | 0.101         | 0.074            | 0.081                  | 0.087                           | 0.052        | 0.179        |  |
| Dependent variable mean                               | 0.385         | 0.147            | 0.291                  | 0.272                           | 0.093        | 0.390        |  |
| Controls  |               | ✓                | ✓                      | √                               | ✓            | ✓            |  |
| Country-Wave FE                                       | $\checkmark$  | $\checkmark$     | $\checkmark$           | $\checkmark$                    | $\checkmark$ | $\checkmark$ |  |

Notes: The sample in columns 1-3 is composed of LAPOP respondents in the 14 countries in our sample in 2004-2019, and the sample in columns 4-6 is composed of Latinobarómetro and WVS respondents in the 14 countries in our sample in 2002-2019. Our dependent variable in column 1 is a dummy for whether the respondent's agreement with homosexuals running for office is greater than 5 (on a scale of 1 to 10). In column 2 (3), our dependent variable is a dummy for whether the respondent strongly approves (disapproves) of homosexuals running for office. In column 4 the dependent variable is a dummy for whether the respondent believes that justification for homosexuality is greater than 5 (on a scale of 1 to 10). In column 5 (6), our dependent variable is a dummy for whether the respondent believes homosexuality can always (never) be justified. Our main regressor is an indicator variable of whether the interview took place after a soap opera with LGBTIQ+ character went off air in the respondent's country. All specifications include country×survey-wave fixed effects, and control for gender, age, whether the respondent lives in an urban area, and whether the interview took place in a Pride month (June). Standard errors clustered by country-day in parentheses.

Table 7: Balance in Observable Characteristics

|   |           | LAPOP Sample |         |           |            |         |         | Latinobarómetro/WVS Sample |             |            |  |  |  |
|---|-----------|--------------|---------|-----------|------------|---------|---------|----------------------------|-------------|------------|--|--|--|
|   | Age       | Female       | Urban   | Religious | Right-wing | Age     | Female  | Urban                      | Pride month | Right-wing |  |  |  |
| Number of soaps with LGBTIQ+ characters                             | -1.099*** | -0.010       | 0.009   | 0.005     | -0.011     | -0.265  | -0.023* | -0.004                     | 0.000       | -0.003     |  |  |  |
|   | (0.402)   | (0.011)      | (0.020) | (0.013)   | (0.015)    | (0.420) | (0.013) | (0.027)                    | (0.000)     | (0.017)    |  |  |  |
| Observations R <sup>2</sup> Dependent variable mean Country-Wave FE | 134,282   | 134,527      | 134,540 | 129,416   | 108,917    | 71,192  | 71,195  | 71,195                     | 71,195      | 55,971     |  |  |  |
|   | 0.022     | 0.003        | 0.086   | 0.069     | 0.035      | 0.021   | 0.004   | 0.281                      | 0.753       | 0.058      |  |  |  |
|   | 39.122    | 0.508        | 0.704   | 0.484     | 0.332      | 39.114  | 0.515   | 0.627                      | 0.091       | 0.304      |  |  |  |

Notes: The sample in columns 1-5 is composed of LAPOP respondents in the 14 countries in our sample in 2004-2019, and the sample in columns 6-10 is composed of Latinobarómetro and WVS respondents in the 14 countries in our sample in 2002-2019. The dependent variable for each estimation is specified in the column header. Religious is a dummy for whether the respondent attends religious services once a month or more. Right-wing is a dummy for whether the respondent places him/herself on a scale of 7 or higher on the spectrum of left to right wing (where 1 is left-wing, and 10 is right-wing) Our main regressor measures the number of *telenovelas* with an LGBTIQ+ character that aired in the respondent's country between 2002 and the day before the survey. All specifications include country×survey-wave fixed effects. Standard errors clustered by country-day in parentheses.

Table 8: Impact of Exposure to *Telenovelas* with LGBTIQ+ Characters on Attitudes toward Government Critics, Placebo Estimation

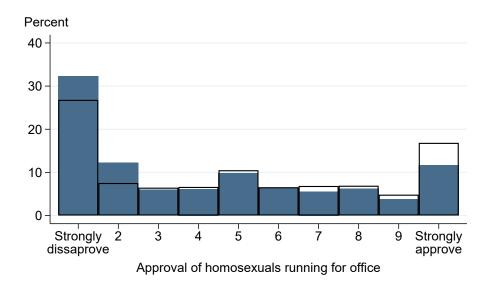
|  | Approval of government critics running for |                   |                        |  |  |  |  |  |
|--|--|-------------------|------------------------|--|--|--|--|--|
|  | Approval > 5                               | Strongly approve  | Strongly<br>disapprove |  |  |  |  |  |
| Number of soaps with LGBTIQ+ characters                | 0.008<br>(0.015)                           | -0.005<br>(0.010) | -0.001<br>(0.012)      |  |  |  |  |  |
| Observations R <sup>2</sup>                            | 131,025<br>0.036                           | 131,025<br>0.040  | 131,025<br>0.029       |  |  |  |  |  |
| Dependent variable mean<br>Controls<br>Country-Wave FE | 0.402<br>✓<br>✓                            | 0.112<br>✓        | 0.158<br>✓             |  |  |  |  |  |

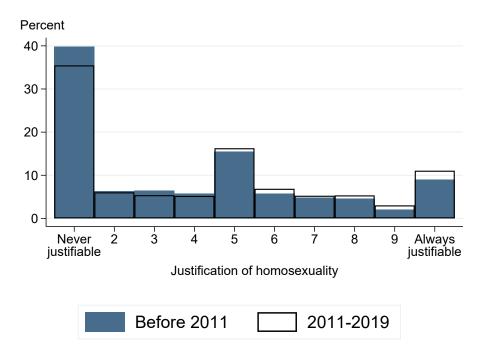
Notes: The sample is composed of LAPOP respondents in the 14 countries in our sample in 2006-2019. The sample is smaller than in our main regressions because the outcome was not measured in the Dominican Republic in 2004. Our dependent variable in columns 1-2 is a dummy for whether the respondent's agreement with government critics running for office is 6 or higher (on a scale of 1 to 10). In columns 3-4 (5-6), our dependent variable is a dummy for whether the respondent strongly approves (disapproves) of government critics running for office. Our main regressor measures the number of *telenovelas* with an LGBTIQ+ character that aired in the respondent's country between 2002 and the day before the survey. All specifications include country×survey-wave fixed effects, and control for gender, age, whether the respondent lives in an urban area, and whether the interview took place in a Pride month (June). Standard errors clustered by country-day in parentheses.

## **ONLINE APPENDIX**

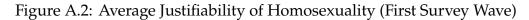
## Appendix A Tables and Figures

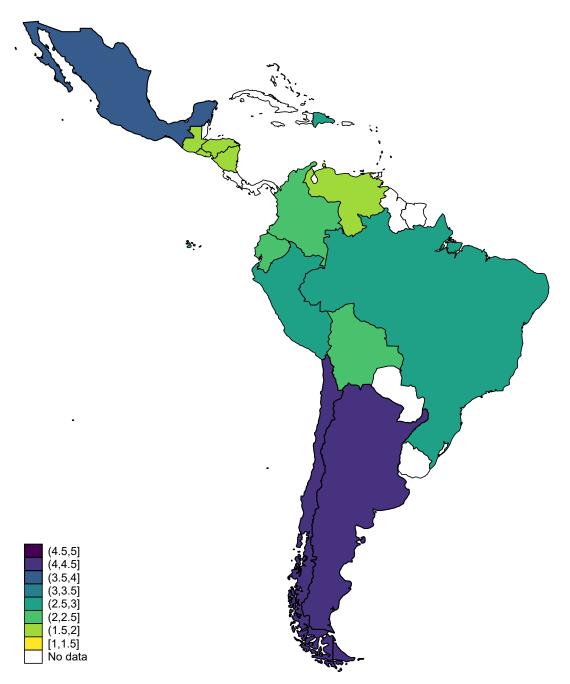
Figure A.1: Change in the Distribution of Attitudes toward the LGBTIQ+ Community





*Notes*: These figures shows the distribution of attitudes toward the LGBTIQ+ community in our sample. In the top figure, the sample is composed of respondents of the LAPOP survey in 2004-2019, and the indicator measures the degree to which respondents approve of homosexuals running for office. In the bottom figure, the sample is composed of respondents of the Latinobarómetro and WVS surveys in 2002-2019, and the indicator measures agreement with whether homosexuality is justifiable. The blue bars show the distribution of responses in the period before 2011, and the white bars show the distribution of responses for 2011-2019.





*Notes*: This figure shows the average for the indicator on whether respondents find homosexuality justifiable or not in each of the countries in our Latinobarómetro/WVS sample. This indicator is measured on a scale from 1 to 10, where 1 is never justifiable, and 10 is always justifiable. For each country, we take the first year in which this question was asked, and calculate averages using the corresponding sampling weights. Countries in white are those that are not part of our sample.

Table A.1: Descriptive Statistics of *Telenovelas* with LGBTIQ+ Characters in 2002-2019

|  | Mean   | SD    | Min   | Max    | N   |
|--|--------|-------|-------|--------|-----|
| Number of episodes                                       | 162.33 | 91.57 | 25.00 | 845.00 | 175 |
| Number of countries in our sample in which it aired      | 1.32   | 1.26  | 1.00  | 10.00  | 175 |
| Aired in more than one country of our sample             | 0.10   | 0.30  | 0.00  | 1.00   | 175 |
| Genre: comedy  | 0.38   | 0.49  | 0.00  | 1.00   | 175 |
| Genre: drama   | 0.57   | 0.50  | 0.00  | 1.00   | 175 |
| Genre: other   | 0.05   | 0.21  | 0.00  | 1.00   | 175 |
| More than one LGBTIQ+ character                          | 0.67   | 0.47  | 0.00  | 1.00   | 175 |
| Number of LGBTIQ+ characters                             | 2.01   | 1.09  | 1.00  | 8.00   | 175 |
| Number of homosexual characters                          | 1.65   | 1.09  | 0.00  | 7.00   | 175 |
| Number of bisexual characters                            | 0.25   | 0.56  | 0.00  | 3.00   | 175 |
| Number of trans characters                               | 0.13   | 0.35  | 0.00  | 2.00   | 175 |
| Number of LGBTIQ+ characters that self-identify as men   | 1.46   | 1.05  | 0.00  | 6.00   | 175 |
| Number of LGBTIQ+ characters that self-identify as women | 0.56   | 0.87  | 0.00  | 4.00   | 175 |
| Number of LGBTIQ+ characters part of main cast           | 1.73   | 1.00  | 0.00  | 6.00   | 175 |

*Notes:* This table details the main characteristics of the *telenovelas* featuring LGBTIQ+ characters that aired between 2002 and 2019 in the 14 LAC countries in our sample.

Table A.2: Number of Observations per Country and Year in LAPOP Sample

|                    | 2004  | 2006   | 2007  | 2008   | 2010   | 2011  | 2012   | 2013  | 2014   | 2016   | 2017   | 2018  | 2019   | Total   |
|--------------------|-------|--------|-------|--------|--------|-------|--------|-------|--------|--------|--------|-------|--------|---------|
| Argentina          | 0     | 0      | 0     | 0      | 0      | 0     | 1,468  | 0     | 1,457  | 0      | 0      | 0     | 1,502  | 4,427   |
| Bolivia            | 0     | 0      | 0     | 0      | 2,810  | 0     | 2,755  | 0     | 2,942  | 0      | 1,602  | 0     | 1,644  | 11,753  |
| Brazil             | 0     | 0      | 1,181 | 1,373  | 2,362  | 0     | 0      | 0     | 1,480  | 0      | 1,514  | 0     | 0      | 7,910   |
| Chile              | 0     | 1,483  | 1,471 | 0      | 1,762  | 0     | 1,388  | 0     | 853    | 0      | 1,596  | 0     | 1,594  | 10,147  |
| Colombia           | 0     | 0      | 0     | 0      | 0      | 1,371 | 1,444  | 1,463 | 1,463  | 1,529  | 0      | 1,627 | 0      | 8,897   |
| Dominican Republic | 4,460 | 1,419  | 0     | 1,345  | 1,457  | 0     | 1,474  | 0     | 1,496  | 1,480  | 0      | 0     | 1,479  | 14,610  |
| Ecuador            | 0     | 0      | 0     | 2,890  | 2,870  | 0     | 1,438  | 0     | 0      | 1,511  | 0      | 0     | 1,513  | 10,222  |
| El Salvador        | 0     | 1,581  | 0     | 1,527  | 1,547  | 0     | 0      | 0     | 1,503  | 1,526  | 0      | 1,480 | 0      | 9,164   |
| Guatemala          | 0     | 1,370  | 0     | 1,364  | 1,335  | 0     | 1,266  | 0     | 1,470  | 0      | 1,498  | 0     | 1,500  | 9,803   |
| Honduras           | 0     | 1,268  | 0     | 1,250  | 1,526  | 0     | 1,630  | 0     | 1,526  | 1,505  | 0      | 1,516 | 0      | 10,221  |
| Mexico             | 0     | 1,481  | 0     | 1,516  | 1,493  | 0     | 833    | 0     | 1,451  | 0      | 1,506  | 0     | 1,524  | 9,804   |
| Nicaragua          | 0     | 1,646  | 0     | 1,395  | 1,400  | 0     | 1,524  | 0     | 1,523  | 1,505  | 0      | 0     | 1,498  | 10,491  |
| Peru               | 0     | 1,461  | 0     | 1,455  | 0      | 0     | 1,450  | 0     | 0      | 0      | 2,602  | 0     | 1,502  | 8,470   |
| Venezuela          | 0     | 0      | 1,423 | 1,366  | 1,494  | 0     | 1,391  | 0     | 1,437  | 1,510  | 0      | 0     | 0      | 8,621   |
| Total              | 4,460 | 11,709 | 4,075 | 15,481 | 20,056 | 1,371 | 18,061 | 1,463 | 18,601 | 10,566 | 10,318 | 4,623 | 13,756 | 134,540 |

*Notes:* This table details the number of observations per country and year in our LAPOP sample. We only include observations for which the variables on acceptance of homosexuals running for office and interview date are not missing.

Table A.3: Number of Observations per Country and Year in the Latinobarómetro/WVS Sample

|                    | 2002   | 2004   | 2006  | 2008   | 2009   | 2012  | 2013 | 2014  | 2017  | 2018  | Total  |
|--------------------|--------|--------|-------|--------|--------|-------|------|-------|-------|-------|--------|
| Argentina          | 1,116  | 1,153  | 0     | 1,099  | 1,061  | 0     | 906  | 0     | 897   | 0     | 6,232  |
| Bolivia            | 1,109  | 999    | 0     | 1,052  | 1,051  | 0     | 0    | 0     | 1,880 | 0     | 6,091  |
| Brazil             | 905    | 1,102  | 1,445 | 1,135  | 1,077  | 0     | 0    | 1,362 | 0     | 0     | 7,026  |
| Chile              | 1,131  | 1,127  | 0     | 1,104  | 1,057  | 926   | 0    | 0     | 0     | 0     | 5,345  |
| Colombia           | 1,107  | 1,150  | 0     | 1,161  | 1,072  | 0     | 0    | 0     | 0     | 1,520 | 6,010  |
| Dominican Republic | 0      | 964    | 0     | 975    | 962    | 0     | 0    | 0     | 0     | 0     | 2,901  |
| Ecuador            | 1,191  | 1,172  | 0     | 1,143  | 1,058  | 0     | 0    | 0     | 0     | 1,151 | 5,715  |
| El Salvador        | 830    | 944    | 0     | 936    | 933    | 0     | 0    | 0     | 0     | 0     | 3,643  |
| Guatemala          | 956    | 791    | 0     | 812    | 896    | 0     | 0    | 0     | 0     | 0     | 3,455  |
| Honduras           | 973    | 940    | 0     | 914    | 900    | 0     | 0    | 0     | 0     | 0     | 3,727  |
| Mexico             | 1,135  | 1,163  | 0     | 1,108  | 1,054  | 0     | 0    | 0     | 0     | 1,689 | 6,149  |
| Nicaragua          | 987    | 874    | 0     | 906    | 884    | 0     | 0    | 0     | 0     | 0     | 3,651  |
| Peru               | 1,141  | 1,150  | 0     | 1,087  | 1,032  | 1,072 | 0    | 0     | 0     | 1,330 | 6,812  |
| Venezuela          | 1,098  | 1,092  | 0     | 1,142  | 1,106  | 0     | 0    | 0     | 0     | 0     | 4,438  |
| Total              | 13,679 | 14,621 | 1,445 | 14,574 | 14,143 | 1,998 | 906  | 1,362 | 2,777 | 5,690 | 71,195 |

*Notes:* This table details the number of observations per country and year in our Latinobarómetro/WVS sample. We only include observations for which the variables on justifiability of homosexuality and interview date are not missing.

Table A.4: Impact of Exposure to *Telenovelas* with LGBTIQ+ Characters on Attitudes toward the LGBTIQ+ community, Heterogeneous Effects

|  |                     |                      | A                    | pproval of           | Homosex             | uals Runni           | ng for Offi         | ce                   |                     |                      |
|--|---------------------|----------------------|----------------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
|  |                     | Str                  | ongly appr           | ove                  |                     |                      | Stror               | ngly disapp          | orove               |                      |
| Number of soaps with LGBTIQ+ characters                                      | -0.036**<br>(0.015) | -0.036**<br>(0.015)  | -0.039***<br>(0.015) | -0.034**<br>(0.015)  | -0.027*<br>(0.016)  | -0.013<br>(0.012)    | -0.013<br>(0.012)   | -0.013<br>(0.012)    | -0.014<br>(0.012)   | -0.023*<br>(0.012)   |
| Num. soaps with LGBTIQ+ characters $\times$ Female                           | 0.001***<br>(0.000) |                      |                      |                      |                     | -0.001**<br>(0.000)  |                     |                      |                     |                      |
| Num. soaps with LGBTIQ+ characters $\times$ Age $\ge 40$                     |                     | -0.002***<br>(0.000) |                      |                      |                     |                      | 0.000<br>(0.000)    |                      |                     |                      |
| Num. soaps with LGBTIQ+ characters $\times$ Urban                            |                     |                      | 0.003***<br>(0.000)  |                      |                     |                      |                     | -0.000<br>(0.000)    |                     |                      |
| Num. soaps with LGBTIQ+ characters $\times$ Attends religious services often |                     |                      |                      | -0.002***<br>(0.000) |                     |                      |                     |                      | 0.001**<br>(0.000)  |                      |
| Num. soaps with LGBTIQ+ characters $\times$ Right wing                       |                     |                      |                      |                      | -0.001**<br>(0.000) |                      |                     |                      |                     | -0.001***<br>(0.000) |
| Female   | 0.001<br>(0.002)    |                      |                      |                      |                     | -0.021***<br>(0.003) |                     |                      |                     |                      |
| $Age \ge 40$   |                     | -0.019***<br>(0.002) |                      |                      |                     |                      | 0.074***<br>(0.004) |                      |                     |                      |
| Urban  |                     |                      | 0.029***<br>(0.003)  |                      |                     |                      |                     | -0.037***<br>(0.005) |                     |                      |
| Attends religious services often   |                     |                      |                      | -0.019***<br>(0.003) |                     |                      |                     |                      | 0.043***<br>(0.004) |                      |
| Right-wing   |                     |                      |                      |                      | -0.007**<br>(0.003) |                      |                     |                      |                     | 0.029***<br>(0.004)  |
| Observations   | 134,527             | 134,282              | 134,540              | 129,416              | 108,917             | 134,527              | 134,282             | 134,540              | 129,416             | 108,917              |
| R <sup>2</sup>   | 0.074               | 0.075                | 0.075                | 0.072                | 0.070               | 0.082                | 0.079               | 0.081                | 0.088               | 0.086                |
| Dependent variable mean  | 0.147               | 0.147                | 0.147                | 0.152                | 0.153               | 0.291                | 0.291               | 0.291                | 0.290               | 0.281                |
| P-value (sum of treatment coefficients) Controls                             | 0.021               | 0.011                | 0.016                | 0.016                | 0.078               | 0.232                | 0.278               | 0.251                | 0.250               | 0.053                |
| Controls Country-Wave FE   | 1                   | 1                    | 1                    | √<br>√               | \<br>\              | 1                    | 1                   | 1                    | 1                   | √<br>√               |

Notes: The sample is composed of LAPOP respondents in the 14 countries in our sample in 2004-2019. Our dependent variable in columns 1-5 (6-10) is a dummy for whether the respondent strongly agrees (disagrees) with homosexuals running for office. In each column, our main regressors are the number of *telenovelas* with an LGBTIQ+ character that aired in the respondent's country between 2002 and the day before the survey, and the interaction of this regressor with a characteristic of the respondent. We consider that a respondent attends religious services frequently if he/she attends once a month or more. We consider a respondent as right-wing if he/she places him/herself on a scale of 7 or higher on the spectrum of left to right wing (where 1 is left-wing, and 10 is right-wing). All specifications include country×survey-wave fixed effects, and control for gender, age, whether the respondent lives in an urban area, and whether the interview took place in a Pride month (June). In columns 4 and 9 we also control for whether the respondent attends religious services frequently. In columns 5 and 10 we also control for whether the respondent is right-wing. Standard errors clustered by country-day in parentheses.

Table A.5: Impact of Exposure to *Telenovelas* with LGBTIQ+ Characters on Attitudes toward the LGBTIQ+ community, Heterogeneous Effects

|  |                     |                      |                     |                      | Just                | ification of         | homosexu            | ıality               |                      |                     |                      |                     |
|--|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|----------------------|---------------------|----------------------|---------------------|
|  | •                   | Justifica            | tion > 5            |                      |                     | Alv                  | vays                |                      |                      | Ne                  | ver                  |                     |
| Number of soaps with LGBTIQ+ characters                  | -0.041**<br>(0.019) | -0.041**<br>(0.019)  | -0.040**<br>(0.019) | -0.035*<br>(0.019)   | -0.008<br>(0.010)   | -0.008<br>(0.010)    | -0.007<br>(0.010)   | -0.009<br>(0.009)    | 0.068***<br>(0.022)  | 0.069***<br>(0.022) | 0.067***<br>(0.022)  | 0.058**<br>(0.023)  |
| Num. soaps with LGBTIQ+ characters $\times$ Female       | 0.002***<br>(0.000) |                      |                     |                      | 0.001**<br>(0.000)  |                      |                     |                      | -0.001**<br>(0.000)  |                     |                      |                     |
| Num. soaps with LGBTIQ+ characters $\times$ Age $\ge 40$ |                     | -0.002***<br>(0.000) |                     |                      |                     | -0.001***<br>(0.000) |                     |                      |                      | 0.001*<br>(0.000)   |                      |                     |
| Num. soaps with LGBTIQ+ characters × Urban               |                     |                      | -0.001<br>(0.001)   |                      |                     |                      | -0.001<br>(0.001)   |                      |                      |                     | 0.002<br>(0.001)     |                     |
| Num. soaps with LGBTIQ+ characters $\times$ Right wing   |                     |                      |                     | -0.002***<br>(0.001) |                     |                      |                     | -0.001***<br>(0.000) |                      |                     |                      | -0.000<br>(0.001)   |
| Female   | 0.025***<br>(0.004) |                      |                     |                      | 0.008***<br>(0.002) |                      |                     |                      | -0.026***<br>(0.004) |                     |                      |                     |
| Age ≥ 40   |                     | -0.060***<br>(0.004) |                     |                      |                     | -0.021***<br>(0.003) |                     |                      |                      | 0.085***<br>(0.004) |                      |                     |
| Urban  |                     |                      | 0.038***<br>(0.006) |                      |                     |                      | 0.017***<br>(0.003) |                      |                      |                     | -0.058***<br>(0.007) |                     |
| Right-wing   |                     |                      |                     | 0.025***<br>(0.006)  |                     |                      |                     | 0.016***<br>(0.004)  |                      |                     |                      | 0.060***<br>(0.005) |
| Observations   | 71,195              | 71,192               | 71,195              | 55,971               | 71,195              | 71,192               | 71,195              | 55,971               | 71,195               | 71,192              | 71,195               | 55,971              |
| $\mathbb{R}^2$   | 0.087               | 0.085                | 0.087               | 0.085                | 0.053               | 0.052                | 0.052               | 0.051                | 0.179                | 0.175               | 0.179                | 0.168               |
| Dependent variable mean                                  | 0.272               | 0.272                | 0.272               | 0.287                | 0.093               | 0.093                | 0.093               | 0.094                | 0.390                | 0.390               | 0.390                | 0.358               |
| P-value (sum of treatment coefficients)                  | 0.039               | 0.025                | 0.028               | 0.048                | 0.492               | 0.386                | 0.433               | 0.247                | 0.002                | 0.002               | 0.002                | 0.011               |
| Controls   | ✓.                  | ✓.                   | ✓.                  | ✓.                   | ✓.                  | ✓.                   | ✓.                  | ✓.                   | ✓.                   | ✓.                  | ✓.                   | ✓.                  |
| Country-Wave FE  | ✓                   | ✓                    | ✓                   | ✓                    | ✓                   | ✓                    | ✓                   | ✓                    | ✓                    | ✓                   | ✓                    | ✓                   |

Notes: The sample is composed of Latinobarómetro and WVS respondents in the 14 countries in our sample in 2002-2019. In columns 1-4 the dependent variable is a dummy for whether the respondent believes that justification for homosexuality is greater than 5 (on a scale of 1 to 10). In columns 5-8 (9-12), our dependent variable is a dummy for whether the respondent believes homosexuality can always (never) be justified. In each column, our main regressors are the number of *telenovelas* with an LGBTIQ+ character that aired in the respondent's country between 2002 and the day before the survey, and the interaction of this regressor with a characteristic of the respondent. We consider that a respondent attends religious services frequently if he/she attends once a month or more. We consider a respondent as right-wing if he/she places him/herself on a scale of 7 or higher on the spectrum of left to right wing (where 1 is left-wing, and 10 is right-wing). All specifications include country×survey-wave fixed effects, and control for gender, age, whether the respondent lives in an urban area, and whether the interview took place in a Pride month (June). In columns 4, 8 and 12 we also control for whether the respondent is right-wing. Standard errors clustered by country-day in parentheses.

Table A.6: Impact of Exposure to *Telenovelas* with LGBTIQ+ Characters on Attitudes toward the LGBTIQ+ Community – Without Controls

|   | Approval of he | omosexuals       | running for office     | Justifiability of homosexuality |         |          |  |
|---|----------------|------------------|------------------------|---------------------------------|---------|----------|--|
|   | Approval > 5   | Strongly approve | Strongly<br>disapprove | Justifiability > 5              | Always  | Never    |  |
| Number of soaps with LGBTIQ+ characters | -0.033**       | -0.034**         | -0.016                 | -0.041**                        | -0.008  | 0.068*** |  |
|   | (0.014)        | (0.015)          | (0.012)                | (0.019)                         | (0.010) | (0.022)  |  |
| Observations R <sup>2</sup>             | 134,540        | 134,540          | 134,540                | 71,195                          | 71,195  | 71,195   |  |
|   | 0.090          | 0.068            | 0.070                  | 0.076                           | 0.049   | 0.164    |  |
| Dependent variable mean                 | 0.385          | 0.147            | 0.291                  | 0.272                           | 0.093   | 0.390    |  |
| Country-Wave FE                         | ✓              | ✓                | ✓                      | ✓                               | ✓       | ✓        |  |

Notes: The sample in columns 1-3 is composed of LAPOP respondents in the 14 countries in our sample in 2004-2019, and the sample in columns 4-6 is composed of Latinobarómetro and WVS respondents in the 14 countries in our sample in 2002-2019. Our dependent variable in column 1 is a dummy for whether the respondent's agreement with homosexuals running for office is greater than 5 (on a scale of 1 to 10). In column 2 (3), our dependent variable is a dummy for whether the respondent strongly approves (disapproves) of homosexuals running for office. In column 4 the dependent variable is a dummy for whether the respondent believes that justification for homosexuality is greater than 5 (on a scale of 1 to 10). In column 5 (6), our dependent variable is a dummy for whether the respondent believes homosexuality can always (never) be justified. Our main regressor measures the number of *telenovelas* with an LGBTIQ+ character that aired in the respondent's country between 2002 and the day before the survey. All specifications include country×survey-wave fixed effects. Standard errors clustered by country-day in parentheses.

Table A.7: Impact of Exposure to *Telenovelas* with LGBTIQ+ Characters on Attitudes toward Women, Placebo Estimation

|   | Men make better political lea |                |                   |  |  |  |
|---|-------------------------------|----------------|-------------------|--|--|--|
|   | Strongly agree or agree       | Strongly agree | Strongly disagree |  |  |  |
| Number of soaps with LGBTIQ+ characters | -0.027**                      | -0.009         | 0.005             |  |  |  |
|   | (0.013)                       | (0.011)        | (0.005)           |  |  |  |
| Observations R <sup>2</sup>             | 99,835                        | 99,835         | 99,835            |  |  |  |
|   | 0.062                         | 0.059          | 0.032             |  |  |  |
| Dependent variable mean                 | 0.723                         | 0.225          | 0.066             |  |  |  |
| Controls                                | ✓                             | ✓              | ✓                 |  |  |  |
| Country-Wave FE                         | $\checkmark$                  | $\checkmark$   | $\checkmark$      |  |  |  |

Notes: The sample pools LAPOP respondents in the 14 countries in our sample in 2006-2019 and the Latinobarómetro and WVS respondents in the 14 countries in our sample in 2002-2019. The sample is smaller than in our main regressions because the outcome was not measured in several waves of LAPOP and Latinobarómetro. Our dependent variable in column 1 is a dummy for whether the respondent agrees or strongly agrees with the statement that men make better political leaders than women. In columns 2 and 3, the dependent variables are dummies for whether the respondent strongly agrees and strongly disagrees with this statement, respectively. Our main regressor measures the number of *Telenovelas* with an LGBTIQ+ character that aired in the respondent's country between 2002 and the day before the survey. All specifications include country×survey-wave fixed effects, and control for gender, age, whether the respondent lives in an urban area, and whether the interview took place in a Pride month (June). Standard errors clustered by country-day in parentheses.