Municipal-level Gender Norms: Measurement and Effects on Women in Politics*

Luisa Carrer† Lorenzo De Masi‡
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Abstract

We study the implications of traditional gender norms for legislators' engagement with women's issues. We leverage rich data from Facebook on the popularity of gender-related interests (processed using machine learning algorithms) to develop a granular Gender Norms Index (*GNI*) at the municipal level within Italy, a geographical resolution that would otherwise be unavailable. After validating our index, we leverage this local variation in norms to isolate their impact on legislators' policy activity in the Italian Parliament. We show that while female legislators generally sponsor more gender-related bills than their male counterparts, their engagement is substantially smaller if they were born in a gender-conservative town. This result persists even when comparing legislators within the same party, constituency or with similar characteristics. The absence of such a systematic impact on non-gender legislation further reinforces the causal interpretation of our estimates. Supplementary evidence on voting behavior suggests that traditional gender norms also negatively affect the passage of pro-equality legislation. Overall, our findings highlight the importance of social norms and sexist culture in lawmaking, thereby slowing down reform for the expansion of women's rights.

Keywords: Women's rights, lawmaking, Gender Norms Index, Facebook, machine learning
JEL Classification: D72, H50, J16, P0, Z10

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†Bocconi University and Toulouse School of Economics. *E-mail address*: carrer.luisa@unibocconi.it.
‡Carlos III University of Madrid. *E-mail address*: lmasi@eco.uc3m.es.

1 Introduction

Despite remarkable progress in recent decades, the representation of women and the advocacy for women's rights in political spheres still face substantial challenges. While prior research often focuses on the underrepresentation of women in politics, (Casas-Arce and Saiz, 2015; Bagues and Campa, 2020, 2021), much less is known about what influences the representation of women's issues (Tertilt et al., 2022; Goldin, 2023). Yet, significant gaps in gender-related legislation persist, such as limited legal protections against domestic violence in several countries (Hyland, Djankov and Goldberg, 2020). Similarly, recent political setbacks, like the 2022 U.S. Supreme Court decision restricting abortion access, highlight the precarious nature of women's rights advancements. In this perspective, shedding light on the factors that impede or slow down policy change is key to addressing the persistent barriers to gender equality.

In standard median voter models, policy outcomes reflect voter preferences (Downs, 1957). More recent political economy models argue that the identity of politicians, such as their gender, also influences policy choices (Chattopadhyay and Duflo, 2004; Clots-Figueras, 2011). However, there is no consensus on how a politician's gender affects public policy. Generally, the evidence is mixed and varies based on the specific context analyzed.[1] These disparities may stem from gender biases and societal views on gender roles. If a politician's gender likely matters for policy choices, her views about gender likely matter as well. Today, women themselves appear divided in their demands for equality with men, with anti-feminist movements emphasizing protection over parity between the sexes (Goldin, 2023). In this paper, we assess the role of gender norms and sexist culture in shaping support for women's issues within the legislative process.

Empirically identifying the impact of cultural attitudes on political behavior is challenging. Most studies compare behavior across immigrants within the same economic and institutional setting but whose backgrounds and norms typically differ (Fernández, 2007). However, immigrants are a selected group (Borjas and Hilton, 1996) and they rarely occupy the highest political offices (Dancygier et al., 2015). At the same time, leveraging within-country variation in culture is difficult. While survey data are not sufficiently granular, common proxies like female labor market outcomes are endogenous and might not purely reflect culture and social norms.

To overcome these challenges, we develop a granular measure of gender norms across municipalities within Italy: the Gender Norms Index (hereafter *GNI*). To do so, we exploit a novel source of information on individuals' attitudes and interests publicly available from Facebook. By tracking user clicks both on its platform and on all websites linked to it—representing around 30% of all existing websites—Facebook has unintentionally created the world's largest database for the measurement of culture (Obradovich et al., 2020). Unlike traditional survey-based measures that are cost-prohibitive and time-consuming at local levels (Lazer et al., 2009), Facebook tracks information on individuals' interests, attaining a geographic granularity that would other-

[1] While increased female representation boosts public goods provision in developing contexts (Pande, 2003; Chattopadhyay and Duflo, 2004), it does not significantly shift public finance compositions in developed countries like the U.S., Spain, and Italy (Ferreira and Gyourko, 2014; Bagues and Campa, 2021; Casarico, Lattanzio and Profeta, 2022; Carozzi and Gago, 2023).

wise be unavailable. Given its marked heterogeneity in cultural traits, which can be traced back to differences in local political history, Italy is an ideal setting to leverage this localized variation in attitudes (Putnam, Leonardi and Nanetti, 1993; Nannicini et al., 2013).

The first part of the paper details our methodology to construct the *GNI* measuring granular variation in attitudes towards women's role. First, we compile a list of gender-related interests suitable for Facebook targeting, such as terms related to women's rights, childcare, and parenting. We use Facebook's official interest classification and extract keywords from abstracts of papers in gender economics. Then, we query Facebook's Marketing API to gather data on the popularity of these interests across municipalities. After normalizing the data to account for population size and online activity differences across towns, we build interest vectors for each municipality.

The main advantage of Facebook data is to attain a geographic granularity that is not available in surveys. However, the 'direction' of individual interests is hard to interpret. While agreement to a survey question like "*Pre-school children suffer when their mothers work*" clearly indicates traditional gender roles, interests like *motherhood* or *childcare* lack such direct interpretations. To address this, we summarize Facebook interest data based on how these interests predict a benchmark index derived from survey data capturing gender roles at the regional level—the finest geographic dimension available in surveys. We first train a machine-learning model to predict this benchmark index using regional-level Facebook interests. We then apply the parameters from this regional model to municipal-level interest vectors, thus reducing these vectors to a single index.

After developing a fine-grained map of gender norms across Italian municipalities, we present evidence to validate our index. First, our Facebook-based *GNI* better reflects survey-based measures of gender attitudes than commonly used proxies like female labor market outcomes (Antecol, 2001; Fernández, 2007; Fernández and Fogli, 2009; Le Barbanchon and Sauvagnat, 2021). This holds true across both Italian regions and countries worldwide, with the latter serving as a test of our model's out-of-sample performance. Furthermore, by examining municipal-level variation, clustering algorithms confirm that the *GNI* reflects known geographic patterns, such as the North-South divide (Putnam, Leonardi and Nanetti, 1993; Federico, Nuvolari and Vasta, 2019). It also correlates strongly with gender norm proxies and varies intuitively with socioeconomic indicators, with larger and richer cities holding more progressive views than neighboring yet smaller towns. Notably, these correlations persist when we condition on region, province, or commuting zone fixed effects, indicating that all of these associations still hold at the local level.

The merit of our *GNI* is to capture this fine-grained variation in gender norms, which we leverage in the second part of the paper to examine their impact on the legislative activity and support for women's issues in the Italian Parliament. To this end, we assemble a dataset on the members of the Italian House of Representatives elected between 1987 and 2022 (corresponding to legislatures X to XVIII) by scraping the data directly from its official website. To proxy for legislators' gender attitudes, we link legislators to their birth town *GNI*. To measure legislators' engagement with women's issues, we collect information on the bills they sponsor and classify them by topic using dictionary-based algorithms (Lippmann, 2022).

Consistent with prior research (Gerrity, Osborn and Mendez, 2007; Clots-Figueras, 2011; Lipp-

mann, 2022), we observe significant gender differences in lawmaking, with the strongest differences found in bills related to women's issues. In particular, female legislators sponsor 4.16 more of these bills than males, a 130% increase over the baseline average of 3.14. Yet, being born in a conservative town—defined as a town in the top tercile of the *GNI* distribution—leads to female legislators sponsoring around 1.02 fewer gender-related bills compared to their counterparts from the bottom two terciles. This effect is significant at the 1% confidence level and large in magnitude, given that female legislators sponsor an average of 6.55 bills on women's issues. The effect remains stable when we control for a rich set of politicians' characteristics, political experience and affiliation, and other town-level characteristics correlated with gender norms.

We then exploit the granularity of the *GNI* by including party-by-legislature and district-by-legislature fixed effects, allowing us to study variation in bill sponsorship across legislators elected *within* the same term and electoral district/political party, but whose birth town gender norms differ. This helps us rule out confounding factors related to constituency demands and party influence. The effect remains negative and significant at least at the 5% level. Although bill sponsorship is our primary outcome due to the characteristics of the Italian parliamentary system—where, unlike in the U.S., roll-call votes are rare and party discipline is strong—we present supplementary evidence on voting behavior. Our findings show that, in close votes where legislators have more incentive to express individual stances against party lines, female legislators from gender-conservative towns are less likely to vote in favor of pro-gender equality legislation. Taken together, our findings indicate that gender norms affect the substantive representation of women's issues, reducing female legislators' propensity to back pro-equality legislation.

The estimated effect on bill sponsorship further increases in magnitude when we focus on gender-related bills clearly promoting gender equality (distinguishing them from those with ambiguous gender impacts), or when we restrict the sample to relatively younger politicians, for whom the *GNI* is expected to be a more accurate predictor of their gender norms due to their more recent birth. We also show that our main findings can be replicated using alternative proxies for gender norms. Conversely, placebo tests indicate that they do not emerge when we use socioeconomic variables, further confirming that our results are unlikely to be driven by town-level variables correlated with gender norms. Similarly, we find no impact of gender norms on male legislators' support for gender-related bills, nor on female legislators' sponsorship of bills concerning non-gender topics, thus bolstering our confidence that we are effectively isolating the impact of attitudes towards gender roles.

By leveraging within-district and within-party variation, our analysis points towards the prevailing norms in a politician's birth town shaping their own interests and identity which, in turn, carry over to the policies they sponsor in office. In the last part of the paper, we provide supplementary evidence to rule out competing explanations. First, we reinforce the argument that our findings cannot be fully explained by constituency demands. We show that legislators' birth town gender norms have greater explanatory power than the constituency-level norm, computed as the population-weighted average *GNI* of municipalities within their electoral district. Second, our findings remain robust when we exclude politicians whose birth towns are roughly equivalent in

size to their districts. In fact, if voter preferences were the primary driver, we would expect larger effects when a politician's birth town almost overlaps with the district they represent. Finally, our results are unchanged when excluding politicians representing the most conservative districts.

The main alternative explanation revolves around differences in selection patterns. Prior research shows that gender norms affect selection in office, with female candidates obtaining fewer votes in more conservative areas (Le Barbanchon and Sauvagnat, 2021; Cella and Manzoni, 2023). While we do find that female legislators are more likely to originate from progressive towns than their male counterparts, these gender differences are significantly reduced when we consider only within-birth-region variation. Yet, our results are robust to the inclusion of birth region fixed effects. Moreover, conditional on being elected, female legislators from towns with different gender norms do not significantly differ in terms of their individual characteristics, political affiliation, or experience. To specifically rule out the impact of parliamentary tenure, we replicate our findings on freshmen, as they are less likely to be influenced by seniority-related factors. Additionally, while female legislators from conservative towns generally sponsor fewer bills, flexibly controlling for overall sponsorship levels does not absorb our main effect of interest. Finally, we provide suggestive evidence that our findings are likely driven by politicians' own views rather than external influences by excluding politicians from small, tightly connected towns where social scrutiny, sanctions and control are typically stronger (Allcott et al., 2007; Buonanno and Vanin, 2017).

Our work contributes to different strands of literature. First, we add to the large literature on the effects of culture and social norms on individual behavior. Starting from the seminal work of Akerlof and Kranton (2000), the idea that norms play a key role in explaining different forms of gender gaps has motivated considerable research (see Bertrand, 2011, 2020; Giuliano, 2020, for excellent reviews). At the same time, most of this literature focuses on the impact of culture on women's economic choices, particularly female labor force participation, mostly by either linking decisions of previous generations to current outcomes (Fernández and Fogli, 2009; Blau, Kahn and Papps, 2011; Finseraas and Kotsadam, 2017) or by comparing outcomes of immigrants with different cultural backgrounds (Fernández, 2007; Boehnke and Gay, 2022; Kleven, 2022; Gay, 2023).

Our contribution to this strand of literature is twofold. First, our identification strategy leverages a novel source of variation by exploiting within-country heterogeneity in gender attitudes, which we can observe thanks to rich social media data. This allows us to compare individuals facing similar institutional and political environments who were born in neighboring yet culturally distinct contexts. Notably, this method can be generalized to measure sub-national differences in other dimensions of social norms, which can be used in future empirical investigations exploring the impact of these norms on individual choices and outcomes. Methodologically, we extend a growing body of work that adopts non-traditional measures of culture, moving beyond standard survey-based metrics.[2] We are the first to leverage the spatial disaggregation of Facebook data, highlighting how the granularity of the resulting cultural measures has great potential for future

[2]For analyses of cultural distances across countries or individuals' groups, see, e.g., Alesina, Tabellini and Trebbi (2017), Bertrand and Kamenica (2018), Desmet and Wacziarg (2018). Specifically using Facebook data, refer to Obradovich et al. (2020), Cuevas et al. (2021), and Hanushek et al. (2023).

research aiming to isolate the impact of culture from correlated confounding factors.

Second, while most of the literature on traditional gender roles studies their impact on gender gaps in individual outcomes, we assess the political-economy implications of gender norms, arguing that persistent attitudes towards gender roles might also slow down reform for the expansion of women's rights. Our paper is closest in spirit to Le Barbanchon and Sauvagnat (2021), who demonstrate that traditional gender roles lead to voter bias, reducing women's numerical representation in conservative contexts. Our results complement this by demonstrating how these same norms also shape the *substantive* representation of women's issues in the legislative arena.

In this sense, we contribute to the literature exploring the role of different factors in shaping legislators' behavior and, specifically, support for gender-sensitive policies. On the one hand, increased political support for women's issues might be driven by economic motives directly affecting individual outcomes.[3] On the other hand, alternative drivers of legislative behavior include non-economic forces, such as religious beliefs or changes in culture and social norms towards women's role. Yet, only a few studies explicitly identify the implications of attitudes towards gender roles for women's rights (Doepke, Tertilt and Voena, 2012). Thanks to the fine-grained nature of the *GNI*, we empirically isolate the effect of prevailing gender roles and show how they influence female legislators' engagement with women's issues. More broadly, our results provide further empirical support to political economy models arguing that politicians' behavior is shaped by identity factors beyond constituency demands and re-election incentives.[4]

Our results also extend previous evidence on the substantive effects of female representation in politics (see Lawless, 2015; Hessami and da Fonseca, 2020). While a politician's gender affects public policy in developing contexts (Pande, 2003; Chattopadhyay and Duflo, 2004), it does not significantly shift spending patterns in developed countries (Ferreira and Gyourko, 2014; Bagues and Campa, 2021; Casarico, Lattanzio and Profeta, 2022; Carozzi and Gago, 2023). Our findings suggest that these contrasting results might stem from cultural factors beyond just gender. A female legislator's attitudes towards gender roles can significantly shape her legislative priorities. Thus, a representative's commitment to women's issues can be substantially lower or higher than expected depending on the prevailing gender views. In fact, women's views on gender roles vary widely, and women themselves are divided in their demands for equality with men (Goldin, 2023).

The rest of the paper is organized as follows. Section 2 describes the institutional context. Section 3 outlines the data. Section 4 develops the *GNI* and presents evidence supporting its validity. Section 5 presents the results on legislators' engagement with women's issues. Section 6 discusses and rules out alternative channels. Section 7 concludes.

[3] Tertilt et al. (2022) use a political-economy model of reform highlighting four economic channels predicting support for women's rights, such as parental altruism towards daughters or the income channel from increasing total household resources. Washington (2008) shows that having a daughter increases a congressman's support for women's issues.

[4] In contrast to the classical median voter model (Downs, 1957), an alternative view of the political process, known as the citizen-candidate model, suggests that policy outcomes depend on the politicians' own policy preferences (Osborne and Slivinski, 1996; Besley and Coate, 1997). Consistently with this, empirical evidence has shown that identity factors, such as race and ethnicity (Burgess et al., 2015; De Luca et al., 2018; Canon, 2020), personal background (Carreri and Teso, 2021; Feigenbaum, Palmer and Schneer, 2022), family (Washington, 2008; McGuirk, Hilger and Miller, 2023), income and economic class (Carnes, 2012), social status (Gelpi and Feaver, 2002), political career (Keena and Knight-Finley, 2018), and religion (Bhalotra et al., 2014; Meyersson, 2014) influence policy choices.

2 Institutional context: Legislative activity in the Italian Parliament

The Italian Parliament. The Italian Parliament consists of two chambers with equal tasks and powers (hence the term "perfect bicameralism"): a lower house, called *Camera dei Deputati* (House of Representatives), and an upper house, called *Senato della Repubblica* (Senate). Since 1963, the House of Representatives has comprised 630 members, while the Senate has consisted of 315 senators, with the addition of a variable number of lifetime senators.[5] The Constitution mandates a 5-year parliamentary term and stipulates that each branch must undergo complete renewal after this period. The President of the Republic has the power to dissolve one or both chambers before the end of their term, although this prerogative is typically exercised only in situations in which it becomes impossible to establish a governing majority.

In our analysis, we focus on legislators in the lower house due to differences in member selection, despite identical legislative powers between chambers. Members of the House of Representatives are elected on a national basis using smaller electoral districts, unlike senators who represent larger districts almost coinciding with regions. Additionally, the House has less stringent active and passive electorate requirements and does not have non-elective lifetime members like the Senate.[6]

The legislative process. A bill consists of one or more articles, accompanied by an explanatory report. It can be sponsored by various entities: individual members of Parliament (who must then submit the bill to their respective chamber), the government, private citizens (provided there are at least 50,000 signatures), single regional councils, and the *CNEL* (National Council for Economics and Labor).

The bill, once proposed, is assigned to the appropriate parliamentary committee that is responsible for the specific policy area. The committee prepares a report and a revised text of the bill to be presented to the main chamber. The committee can also seek input and opinions from other committees, which hold advisory sessions to provide comments and suggestions on the relevant sections of the bill. Proposed changes (amendments) can be introduced during committee deliberations.

Afterwards, the bill advances to the chamber where it was presented. During this debate stage in the plenary assembly, each individual article of the bill is discussed and voted upon, including any proposed amendments to the text. Finally, individual legislators provide their explanations of vote before the final vote on the entire bill is taken.[7]

After approval, the bill is submitted to the other chamber for further examination and potential

[5] In 2019, a constitutional bill aimed at reducing the number of representatives to 400 and senators to 200 was approved by the Parliament and subsequently ratified by a constitutional referendum. However, it was implemented starting from the XIX legislature, which is beyond the time period of our study.

[6] The constitutional law of October 18, 2021, expanded the right to vote in the Senate to include young people aged 18 to 25, in line with the electoral rules for the House of Representatives. The implementation of this law was enacted during the general elections for the XIX legislature, which falls beyond the scope of our designated time period.

[7] In addition to the ordinary procedure summarized in this paragraph, which is followed for the majority of legislative initiatives, there are also two expedited procedures: one involves the direct examination and approval of the bill in the assigned committee, while the other entails the examination in the committee and voting in the plenary session without the possibility of further modifications.

approval or modification. As previously mentioned, both chambers share the same competencies and tasks. Therefore, in order for a bill to become law, it must receive identical approval from both houses. If the text is modified, the bill goes back and forth between the two chambers until they both approve the same text. Once the bill is approved by both chambers, it must be promulgated by the President of the Republic. The law is then published in the *Official Gazette* and comes into effect fourteen days later.

Outcomes of legislative activity. Legislators in the Italian Parliament thus impact policy mainly through bill sponsorship, amendment proposals, and voting.

In our main analysis, we concentrate on bill sponsorship, which we argue is the most direct measure of legislative activity and policy engagement. Although the government initiates most of the successful bills (see Figure B1),[8] the individual parliamentarian's role in proposing legislation remains crucial. Despite institutional efforts to streamline the legislative process, the Italian Parliament remains one of Europe's most legislatively prolific institutions (Cotta and Verzichelli, 2007). While approximately 4,000 bills are introduced by legislators each term, governmental proposals are only about 300 per term, thus highlighting the proactive nature of Italian legislators (see Figure B2). Although their proposals have a lower passage rate than government-initiated ones, they are central in signaling legislators' policy positions and independence from party mandates. Therefore, bill sponsorship is a reliable measure for assessing a legislator's priorities and engagement, regardless of the ultimate success of the legislation and the strong party discipline characterizing the Italian political system.

Conversely, we exclude amendment proposals from our analysis. The amendment process primarily occurs within parliamentary committees, thus limiting participation to a selected group of legislators.[9] Furthermore, interpreting the intent behind amendment proposals is difficult: while they may reflect a legislator's interest in the bill's topic, their actual scope can range from minor changes in punctuation to strategic delays in legislation. Unlike bills, which can be categorized based on their topic and intended outcome like advancing gender equality, the varied and often subtle drivers of amendments preclude straightforward classification.

Finally, we prioritize bill sponsorship over voting as our main outcome due to several reasons. Unlike in the U.S. Congress, where roll-call votes on bills are routine, final votes on legislation in the Italian Parliament are less frequent. In Italy, similar to most European democracies such as France (Lippmann, 2022), only a select number of bills are brought before the full assembly for a vote. Moreover, the Italian political system features strong party control over both the selection and behavior of legislators, rewarding loyalty over individual initiative and maintaining high party discipline. Political parties have traditionally controlled the selection process, by closely overseeing the nomination and the career progression of their members. Even professionals such as lawyers, journalists, and doctors are often selected for their political alignment with party ide-

[8]Following the 'Tangentopoli' scandals of the early 1990s involving all major political parties, there has been a notable increase in government decrees and delegated legislation, consolidating legislative power within the executive (Zucchini, 2011).

[9]For example, in the XVIII legislature—the more recent in our study—8,386 amendments were passed by the Parliament, with nearly 90% (7,483) approved in committees (see https://temi.camera.it/leg18//temi).

ology, rather than for their actual expertise and competencies. This control also limits legislators' voting autonomy, as they face the risk of being excluded from their party when casting rebel votes. Adherence to party decisions has further increased following the 1988 reform, which abolished secret ballots for most votes.[10] Therefore, bill sponsorship, which is less influenced by party dictates, offers a clearer insight into individual legislators' engagement with specific issues.[11]

Nonetheless, the fragmentation of Italian politics and internal coalition conflicts, alongside the ongoing crisis of traditional parties, have occasionally led to party divisions during critical votes. Contested votes—those with narrow margins—tend to see lower party discipline, as individual legislators anticipate their potential to be pivotal, which may make them more willing to accept the costs of voting against the party line. In contrast, votes with a predictable wide-margin outcome encourage conformity to the party line, as any deviation has little benefit due to the negligible impact of a single legislator's vote. Therefore, to corroborate our findings, we provide supplementary evidence using voting behavior in contested roll-call votes, where the tight margins provide legislators with a stronger incentive to vote in line with their true preferences (see Section 5.1.4).

3 Data

We combine data from multiple sources. Section 3.1 describes the data from Facebook used to develop our measure of gender norms, the *GNI*. Section 3.2 details the construction of our dataset for the members of the Italian House of Representatives and the classification of bills into policy topics. Lastly, Section 3.3 describes the supplementary data on Italian municipalities that we use to validate our *GNI*, as well as to control for other town-level characteristics in our estimation strategy.

3.1 Gender-related interests from Facebook

With almost 3 billion monthly active users as of February 2023,[12] Facebook is the largest social media company in the world and the most downloaded mobile app of the 2010s (Miller, 2019). Importantly, Facebook gathers detailed information on users' preferences and interests from their online activity not only on the Facebook platform, but also on all external websites that have a link

[10] Prior to this reform, secret ballots allowed some degree of dissent, particularly within the ruling majority. Legislators known as *franchi tiratori*—or maverick/rogue legislators—could vote against the party line anonymously during these ballots. This allowed them to strategically sway the outcome of the vote without facing any repercussions from their party.

[11] Our approach is in line with the existing literature on the behavior of European legislators, which measures law-making outcomes through bill sponsorship (Gagliarducci, Nannicini and Naticchioni, 2011; Nannicini et al., 2013) or amendments (Lippmann, 2022). In contrast, research on the U.S. Congress—where roll-call votes are common and party discipline is considerably lower—often rely on voting patterns as the primary measure of political behavior and preferences, in both economics (Lott and Kenny, 1999; Lee, Moretti and Butler, 2004; Washington, 2008; Giuliano and Tabellini, 2020; Carreri and Teso, 2021; Feigenbaum, Palmer and Schneer, 2022; McGuirk, Hilger and Miller, 2023) and political science (Canes-Wrone, Brady and Cogan, 2002; Carson et al., 2010; Carnes, 2012; Kleinberg and Fordham, 2013; Grumbach, 2015).

[12] See https://datareportal.com/essential-facebook-stats.

to Facebook, which amount to over 30% of all existing websites (Englehardt and Narayanan, 2016). For this reason, Facebook nowadays manages the largest existent database for the measurement of culture (Obradovich et al., 2020; Cuevas et al., 2021), which may be used to analyze social groups along thousands of interest dimensions and down to extremely fine spatial resolution. We collect information on the popularity of various gender-related interests, which can provide insights into individual attitudes towards gender roles,

List of gender-related interests. Prior to data collection, the first step is to compile a list of keywords related to gender, which can be targeted as interests on Facebook. These include interests related to women's rights, childcare, parenting, labor market outcomes, and other topics relevant to the study of gender.

To this end, we rely on two different sources. First, we take advantage of the official classification of interests offered by Facebook. Specifically, we focus on the *Family and Relationships* category which, along with its eight subcategories (e.g., *motherhood*, *fatherhood*, *marriage*), describe familiar and interpersonal connections characterizing human society. Second, we assemble key words from the abstracts of papers recently published in two journals that oftentimes publish research on Gender Economics (i.e., the *Review of Economics of the Household* and the *Journal of Public Economics*). Afterwards, we use the InterestExplorer software to return the list of all (targetable) Facebook interests that partially or fully match each one of the words.[13] This yields a final list of 60 unique gender-related interests. Further details on the collection of the interests list can be found in Appendix A.1.

Querying Facebook's Marketing API. Having built the list of gender-related interests, we use Facebook's Marketing API to collect information about the popularity of each of these interests within each Italian municipality. Through its API, Facebook makes its data publicly accessible to advertisers for configuring their online advertisement campaigns. Marketers can define the group they want to target by specifying the geographical location (down to the zip-code level), demographics (such as age and gender), and a large quantity of interests spanning virtually all human preferences.[14] For a given set of group specifications, Facebook's API provides the corresponding audience sizes, expressed in terms of monthly (MAU) and daily (DAU) active users.

Therefore, we sequentially query Facebook's Marketing API for all of the 60 gender-related interests in our list and 3,969 zip-codes in Italy.[15] For each zip-code and interest pair, we store the MAU measure, namely the number of monthly active users.[16] In our analysis, we opt for using MAU over DAU, since the number of daily active users is too sensitive to the date in which data is collected (Obradovich et al., 2020). At the same time, however, collecting monthly audience sizes presents an additional challenge. Due to privacy reasons, Facebook imposes a lower bound

[13] See https://interestexplorer.io/.

[14] Each interest is indexed by a unique identifier, allowing for consistency across languages globally.

[15] We decide to collect the data by zip-code because Facebook's targeting is more precise than when specifying a municipality. In the case of large municipalities with multiple zip-codes, we run a single query that includes all corresponding zip-codes. Conversely, if there are large zip-codes that include multiple municipalities, we assign the same query to each of the included municipalities. Once the data is collected, we bring it back at the municipality level.

[16] Facebook provides both a lower and an upper bound for the MAU measure, and we calculate the monthly audience size by averaging these two bounds.

constraint of 1,000 users for the MAU measure. That is, whenever the audience size for a particular target group (defined by the location-interest pair) falls below 1,000, Facebook reports the 1,000 lower bound.

To address this issue, we re-run queries for location-interest combinations with an audience size of 1,000, jointly with a different (larger) municipality that has already been queried. This allows us to obtain the joint audience size for the new, larger combined area. We then derive the audience size for the original, smaller target group by subtracting the previously collected audience size of the larger municipality from the joint one. Still, we drop from our list interests that are excessively specific and likely affected by the 1,000 lower bound in numerous municipalities.[17]

Limitations. While previous research has leveraged Facebook advertisements (Broockman and Green, 2013; Enríquez et al., 2021; Garbiras-Díaz and Montenegro, 2022) and friendship networks (Chetty et al., 2022*a*,*b*), using Facebook data on users' interests to measure cultural attitudes and preferences is a very innovative approach and, as such, presents some limitations that are worth discussing. The main limitation is that, contrary to surveys which are designed with precise and targeted questions, Facebook's audience sizes do not have such a straightforward interpretation. In fact, the audience size of a given interest in a population is not informative of the direction of the users' preferences, in that Facebook only records users' general online activity around interests, while being agnostic on the proportion of supporters and opponents among them. In other words, we know how many users have signaled a given interest through their online activity, but we do not know if this is because they like it or dislike it, or if they are in favor or against it. For instance, even though interest in *feminism* may typically be associated with progressive views, there can be several reasons why an individual's online activity might indicate an interest for it.

We address this concern in two ways. First, while Facebook information on a single interest is unlikely to provide meaningful insights on its own, the fact that we query Facebook's API over a broad range of gender-related interests mitigates this concern. At the same time, we will also present evidence on cross-regional patterns for selected gender-related and generic interests separately (see Section 4.4), suggesting that even the relative popularity of single interests can capture known geographic patterns in attitudes or cultural outliers.

Second, we will summarize the interest data in a way such that the composite Facebook index matches a benchmark measure at a higher geographic level (see Section 4.2). By using a machine learning algorithm, we identify how each Facebook interest predicts a standard index based on region-level survey data—the most detailed geographic level available in surveys. This allows us to bridge the rich yet opaque Facebook data with a transparent yet less granular benchmark index. Alternatively, one could run a Principal Component Analysis over municipal interest data, aggregate the resulting index to the regional level, and verify ex-post its positive correlation with the benchmark. We argue that our approach is superior, as it directly links the Facebook index to the benchmark.

Another potential concern is that Facebook data are sensitive to time trends variations. For

[17] In particular, we exclude all interests with an audience size lower than 10,000 at the national level.

instance, online activity in a given month can differ significantly from that in the preceding month or year. To address this, as mentioned earlier, we choose to use the MAU measure, which is more stable over time than the DAU.

Finally, not all individuals use Facebook. Differences in Facebook penetration rates across different groups may potentially bias our cultural measures, especially if the decision to use Facebook is not exogenous to gender attitudes. In the Italian setting, however, the large number of active users and their relatively even distribution across genders and age groups limit this concern. In particular, as of April 2023, there were almost 45 million active users in Italy, accounting for more than 75% of its entire population. Furthermore, women represent about 51.1% of them and virtually all users are over 18 years old. The largest age group is individuals aged 25-34 (20.5%), followed by those aged 45-54 (18%), 18-24 (17.8%) and 35-44 (17.1%).[18] As a matter of fact, recent research indicates that the validity of results holds even in environments with low Facebook usage rates (Obradovich et al., 2020).

3.2 Members of the Italian House of Representatives

To examine the influence of gender norms on the legislative activity of politicians in the Italian Parliament, we construct a comprehensive dataset on all members of the Italian House of Representatives by scraping information directly from its official website.[19] The dataset encompasses all representatives in office between 1987 and 2022, covering legislatures X (1987-1992) to XVIII (2018-2022).

Demographics and political characteristics. For each elected politician, we gather extensive demographic, socioeconomic, and political information. Demographics include gender, age, and municipality of birth. Socioeconomic characteristics include education and self-reported previous occupation. In cases where educational or occupation data is missing, we supplement our dataset by scraping this information from Wikipedia. We construct indicator variables for four educational levels and sixteen occupation categories.[20] Regarding political attributes, we observe party affiliation, legislative tenure, and electoral district. We categorize political parties into left-wing, center, right-wing parties, as detailed in Appendix Table B1.

We assign each politician the corresponding value of the *GNI*, based on the information about their city of birth, to measure the level of gender conservatism in their town of origin, as detailed in the previous section. Given that the *GNI* is specific to Italian municipalities and is not applicable to politicians born outside of Italy, we exclude them from our analysis.[21] As a result, our final dataset includes 5,635 politician-by-legislature observations, corresponding to 3,475 unique politicians.

[18] See https://napoleoncat.com/stats/facebook-users-in-italy/2023/04/.

[19] See https://dati.camera.it/it/.

[20] Regarding educational attainment, we construct indicators for primary school, middle school, high school diploma, and university degree or higher. As for the previous occupation, we classify politicians into sixteen categories, namely lawyer, blue-collar worker, bureaucrat, white-collar worker, journalist, entrepreneur, self-employed, judge, manager, physician, teacher/professor, trade union representative, professional politician, army officer, student, and retired. These classifications are based on Carozzi and Repetto (2016).

[21] In any case, politicians born abroad represent only a small proportion (around 1.4%) of our sample.

Summary statistics. Appendix Table B4 presents summary statistics for our sample of elected officials, separately by gender. Despite the substantial increase in women's representation over recent decades, women represent only 18% of representatives throughout all the legislative terms.[22] However, when it comes to legislative engagement, female politicians are significantly more active, sponsoring an average of 84.7 bills, compared to 69.0 for males. Female politicians also tend to be younger (45 years old compared to almost 50 for men), they are slightly more likely to hold a college degree (65% compared to 62%, though this difference is not significant at conventional levels), but less likely to be re-elected (2.3 terms compared to 2.8 for men). Female legislators are also more likely to be affiliated with left-wing parties, with 50% of them being leftist, in contrast to 37% of males. Finally, analyzing politicians' birthplace distribution reveals that women are less likely to be born in Southern Italy. While male representatives are evenly split between North and South (about 80% combined), only 29% of women were born in the South compared to 46% in the North. Similar proportions are found when looking at districts of election (similarly grouped in three macro areas).

Bills' topic classification. We gather information on all parliamentary initiative bills originating in the House of Representatives within the considered legislatures, again scraping the data directly from its official website. Therefore, our analysis includes all bills sponsored between 1987 and 2022, regardless of their status in the parliamentary procedure. In total, our final dataset consists of 35,502 bills. For each bill, we collect information about its content, including a brief title summarizing its main topic, as well as the legislator serving as primary sponsor (*primo firmatario*) and the legislators who co-sponsored the bill (*altri firmatari*).

The bills in our dataset do not provide explicit information on their policy topics, nor they are classified into pre-defined categories. To determine the topics of the bills, we employ a dictionary-based method using words related to the areas of interest, consistent with the approach of Lippmann (2022).[23] Specifically, we define a list of 26 non-mutually exclusive policy topics based on the permanent government ministries and parliamentary committees that were responsible in Italy during the sample period.[24] Because we are particularly interested in bills related to women's issues, we also define a "women" subcategory, spanning across the 26 main topic categories.

[22] Appendix Figure B3 illustrates the evolution of the share of female politicians in the House of Representatives, starting from the first postwar legislature, in 1948. The proportion of women elected to the House of Representatives first exceeded 10 percent in 1987 (which is the first legislature in our sample, represented by the black vertical line in the graph), and has increased steadily since then. The most notable increase occurred in 2013, when the proportion of female representatives rose from approximately 20 to 30 percent. In the most recent legislature, 36 percent of elected officials were women.

[23] There are several reasons why we choose to use a dictionary-based algorithm instead of an unsupervised method like Latent Dirichlet Allocation (LDA) for topic analysis. On the bright side, unsupervised methods do not require to specify words to include in topic dictionaries, which can abstract from researcher subjectivity. However, they often produce topics that are challenging to interpret and may not align with the researcher's specific interests. As a result, unsupervised methods are more suitable for analyzing overall differences in bill sponsorships across groups. In contrast, because our focus is on specific topics and categories, such as women-related bills, dictionary-based methods offer a more appropriate and meaningful classification.

[24] The topics are agriculture, civil, civil rights, culture, economics, education, environment, Europe, family, health, industry, institutions, international, justice, labor, local, media, migration, military, non-profit, public finance, security, sport, trade, transportation, and public works.

To assign each bill to a topic, we consider the entire sample of bills' titles. We start by removing common stop words such as "*the*" or "*and*". Then, we identify the most frequently occurring words that appear at least six times (5,036 words). Finally, we manually review and assign each of these words to at most two of the 26 topics. We also distinguish between singular and plural forms as well as gender-specific versions of words to reduce potential classification mistakes. For example, the words "*costa*" and "*coste*" ("coastline" and "coastlines") are included in the environment dictionary, while the terms "*costo*" and "*costi*" ("cost" and "costs") are included in the economics and public finance dictionaries, as they typically refer to expenditures. Appendix Table A2 presents a comprehensive overview of the topic classification, displaying the thematic areas that define each dictionary, along with the top 10 keywords based on their frequency.

We categorize each bill under a specific topic if its title contains at least one word included in the corresponding dictionary. Our assumption is that if a bill is related to a particular topic, one or more words from the relevant dictionary should appear in its title. For example, if a bill's title includes the word "taxes", it is classified as a bill related to public finance. Similarly, if the title contains the word "amnesty", the bill is classified as both law- and civil rights-related. The composition of words in the titles, along with their association with the corresponding dictionaries, determines the final categorization of each bill within the relevant topics.

To classify bills under the "women" subcategory, we use the same approach. In particular, we consider a bill to be gender-related if its title contains any of the key words included in the corresponding dictionary, such as "women", "maternity", "pregnancy", "motherhood", "sex", or "female", among others. Since the Italian language differentiates between feminine and masculine forms in many words, we also include corresponding feminine expressions for certain professions, such as the generic words "*lavoratrice*" ("female worker") and "*lavoratrici*" ("female workers"). By incorporating a wider range of words, we aim to capture bills related to women's issues that may not explicitly use the word "women". The most frequently occurring words in the women's dictionary are "*donne*" ("women") and "*maternità*" ("maternity"), with over 150 occurrences each. These are followed by "*lavoratrici*" ("female workers") with 92 occurrences and "*femminile*" ("feminine") with 79 occurrences. All other words in the dictionary have fewer than 50 occurrences. We refer to Appendix Table A3 for the further details.

We perform additional analyses to validate the accuracy of our dictionary. In particular, we acknowledge the possibility of potential false matches associated with common keywords like "gender" and "sex". The Italian version of the former can sometimes be used as a synonym for "genre" or "kind of", while "sex" may refer to bills related to same-sex issues that align more closely with the civil rights dictionary. To address this issue, we ensure that the words included in our dictionary maintain their intended meaning when combined with other words in complex expressions by further examining bigrams and trigrams and removing false matches. For example, when the word "*madre*" ("mother") is combined with "*lingua*" ("tongue"), it refers to a native speaker, and when combined with "*lievito*" ("yeast"), it refers to an ingredient of bread.[25] Finally,

[25] Among the most frequent bigrams and trigrams, we observe terms related to gender and sexual discrimination, gender and wage equality, parental leave, gender representation in elected positions and corporate leadership, and,

we conducted a manual check of all bills categorized as gender-related and, reassuringly, only 18 of these bills had been incorrectly classified.

After considering compound expressions characterized by bigrams and trigrams, we find that, out of the total sample of 35,502 bills, a significant majority of 32,913 laws (approximately 93%) are classified into one or more topics by our dictionary-based algorithm. The remaining 2,562 laws are excluded from the classification as they do not contain any of the previously reviewed most frequent keywords. Appendix Figure B4 displays the distribution of bill topics based on their prevalence. Notably, the most dominant topics in the sample are justice and labor, accounting for 19% and 17% of the bills, respectively. Following closely are topics such as public finance, institutional affairs, health, and culture, each accounting for approximately 10 to 15% of the bills. On the other end of the spectrum, we observe topics related to migration, Europe, and sport, which have a much lower prevalence.

The described procedure identified approximately 1,100 bills as related to women's issues, accounting for about 3% of the categorized bills. Because the "women" subcategory spans across the main topic categories, we can examine its distribution across the primary 26 topics. Interestingly, among the women-related bills, 500 (41.5%) address family issues, 417 concern labor issues (35%), and 332 health issues (27.5%).

3.3 Other municipal-level variables

We obtain additional data on Italian municipalities that we use to validate our *GNI*, as well as to control for other municipal-level characteristics in our estimation strategy. In particular, we gather information on municipal-level resident population, sea level, average income per-capita, labor force participation and employment rates, and shares of low- versus high-skilled individuals from the Italian Institute of Statistics (ISTAT). From the Italian electoral archives (*Eligendo*), we get data on electoral participation in the 2018 general election to serve as a proxy for female political engagement.[26] We also obtain data on electoral support for divorce and abortion rights in the 1974 and 1981 referenda, respectively, to act as proxies for historical gender norms.[27]

4 Measuring gender norms at the municipality level

In this section, we describe how we develop the *GNI* (Sections 4.1 and 4.2). We then present our measure and analyze its variation across Italian municipalities (Section 4.3), and finally validate it (Section 4.4).

importantly, gender-based violence. Once again, we refer to Tables A2 and A3 in Appendix A.2 for further details.
[26] Data on vote shares are available at https://elezionistorico.interno.gov.it.
[27] Data on referenda are available at https://elezioni.interno.gov.it/opendata.

4.1 Building normalized interest vectors

After collecting the data on individuals' gender-related interests using Facebook's API (see Section 3.1), our first objective is to normalize the raw audience sizes (the MAU measures) to account for differences in population size and users' online activity across Italian municipalities.[28] Intuitively, not only the number of users, but also the number of interests per user—namely their online activity level—vary considerably across different areas. To account for these differences, we divide the raw audience sizes by the total number of active users *and* interests within the considered municipality.

More formally, let s_{ij} denote the number of active users holding interest i in municipality j in the last month, that is, the audience size of interest i in municipality j. For each interest i and municipality j, we define the normalized interest ratio (IR) as:

$$IR_{ij} = \frac{s_{ij}}{\sum_i s_{ij}}, \tag{1}$$

where $\sum_i s_{ij}$ sums over the number of active users across all interests in municipality j, thus representing the total number of interest signals expressed in that municipality in the reference month. As a result, the interest ratio measures the share of signals in municipality j that correspond to interest i. Since it is normalized by the total number of signals of the reference population, the IR_{ij} can now be used to compare the relative popularity of given interests across different areas.

Second, we store the collected information into a sequence of 'interest vectors'—each corresponding to a specific municipality—in which each entry represents the share of individuals in that area who hold the corresponding interest. That is, for each municipality j, we construct its interest vector, V_j, as follows:

$$V_j = \{IR_{1j}, IR_{2j}, ..., IR_{Ij}\}, \tag{2}$$

where entry i corresponds to the normalized interest ratio of interest i in municipality j. For instance, for $i =$ *motherhood* in $j =$ *Rome*, entry IR_{ij} is the share of Roman users that have expressed an interest for *motherhood* in the last month.

4.2 From interest vectors to the *GNI*

Benchmark survey-based index. To summarize municipal interest vectors, V_j, into a single measure, we first build a benchmark index of gender attitudes at the regional level—the finest geographical level available in surveys. To this end, we use data from the 2017–2020 wave of the European Values Survey (EVS). As is standard in the literature (Giuliano and Alesina, 2010; Goussé, Jacquemet and Robin, 2017), we select five questions regarding the role of women in the society and perform a Principal Component Analysis on individuals' responses to these questions. We then normalize the index to a zero mean and a standard deviation of one. We label this benchmark survey-based measure as Gender Values Index (*GVI*).

[28] See Dubois et al. (2018) and Cuevas et al. (2021) for a discussion on Facebook activity level bias.

Appendix Figure B5 (left-hand panel) lists the questions used for the *GVI* construction, together with the corresponding factor loadings. Since agreement or strong agreement to these questions can be interpreted as expressing a conservative view of women's role in society, and given that the signs of the factor loadings are positive, the *GVI* is a measure of gender conservatism. Appendix Figure B5 (right-hand panel) displays the map of Italy where Italian regions are colored according to the corresponding value of the *GVI*. The actual values can be found in Appendix Table B2. The emerging pattern reflects the known North-South divide (Putnam, Leonardi and Nanetti, 1993; Federico, Nuvolari and Vasta, 2019), with Northern and Central Italian regions showing low and mid *GVI* values, while the five Southern regions exhibit more conservative gender roles, with Puglia and Calabria featuring the highest values.

Predicting the benchmark *GVI* using Facebook interests. We now predict the benchmark *GVI* using Facebook-based interest vectors (for Italian regions).[29] We will then apply the parameter estimates from this regional model to municipal-level interest vectors. This will allow us to reduce these vectors to a single index that weighs each entry based on how the corresponding interest predicts the *GVI*, our benchmark measure of gender conservatism.

Given that the number of regressors (interests) exceeds the number of observations (regions), the design matrix is not full column rank. Therefore, we use a machine learning algorithm. In a nutshell, it involves dividing the data into two parts: a training sample to estimate different prediction models, and a testing or hold-out sample to evaluate the goodness-of-fit of the estimated models on new data, also known as out-of-sample fit. We outline the main steps of the algorithm below and refer to Appendix Section A.3 for further details.

First, we split the data into a training sample (70% of the data) and a testing sample (30%). We tune the parameters of each model (ridge, lasso, and elastic net) using leave-one-out cross-validation on the training sample. This involves partitioning the training sample into "folds" where we leave out one observation at a time. For each fold, we estimate the model using all-but-one observations and obtain a prediction for the left-out observation. This process is repeated for each fold, delivering a prediction for every observation in the training sample. We select the tuning parameter that delivers the minimum cross-validated mean squared error for each model and re-estimate each of them using all data in the training sample. We then turn to the testing sample to assess the out-of-sample fit of each model with the optimal tuning parameter, and choose the model with the highest predictive ability in the hold-out sample based on its R^2.

Table 1 displays some examples of gender-related interests, along with their respective coefficients from the chosen model. On the left, we list ten positive predictors of the benchmark GVI, and on the right, ten negative ones, ranked by coefficient magnitude. We can see that interests such as *weddings*, *pregnancy*, *Mary (mother of Jesus)*, *marriage*, and *engagement ring* have a positive coefficient. Conversely, interests such as *self care*, *dating*, *human sexuality*, *LGBT community*, and *pride* are negative predictors of the *GVI*.[30] This is in line with the fact that the *GVI* is an index of

[29] To build these region-level interest vectors, we query again Facebook's Marketing API to collect data on the popularity of gender-related interests across regions.

[30] It is interesting to note that the interest in *ancestry* is a negative predictor of *GVI*. Indeed, this may indicate relatively

gender conservatism, with higher *GVI* values reflecting more conservative gender views.

Table 1: Examples of positive and negative gender-related interests used to construct the GNI

Interest	Coeff. (+)	Interest	Coeff. (-)
Motherhood	0.022	Self care	-0.005
Weddings	0.022	Parenting	-0.007
Marriage	0.021	Dating	-0.009
Children's clothing	0.020	Human sexuality	-0.010
Pregnancy	0.016	LGBT community	-0.012
Mary (mother of Jesus)	0.015	House	-0.018
Bridesmaid	0.015	Pride	-0.019
Engagement ring	0.014	Child	-0.019
Bride	0.014	Social movement	-0.032
Wedding ring	0.014	Ancestry	-0.040

Notes: This Table displays examples of the gender-related interests used to develop our *GNI*, along with the coefficient estimates from the model that best predicts the benchmark survey-based *GVI*. This model was chosen using the machine learning algorithm outlined in Section 4.2. The first column lists interests with positive coefficients, while the second column lists interests with negative coefficients. Since higher *GVI* values reflect more conservative gender views, the interests in the first column are indicative of traditional views, while those in the second column are associated with more progressive views.

Having selected the model that best predicts the benchmark *GVI* regionally, we obtain the *GNI* by applying the estimates from this model to the interest vectors of Italian municipalities. Finally, we normalize the resulting index to a mean of zero and a standard deviation of one.

4.3 The *GNI* and its local variation

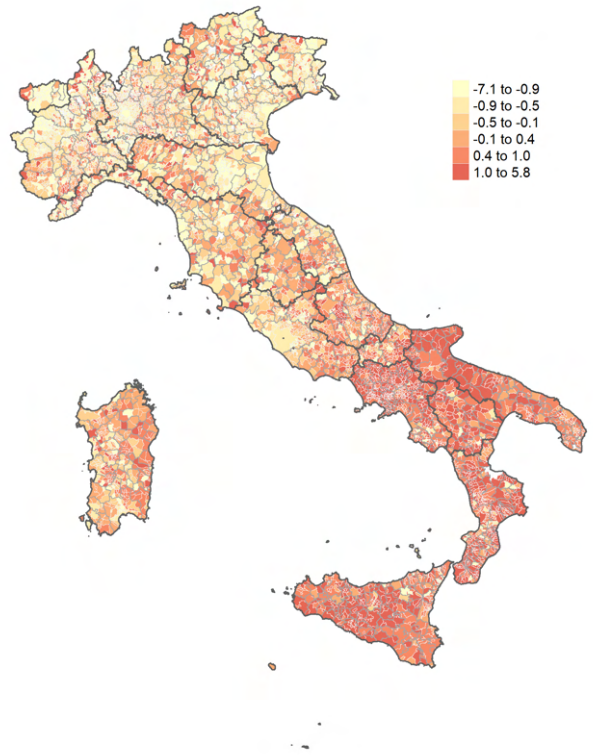
Appendix Figure B6 presents a scatter plot comparing the benchmark survey-based *GVI* (y-axis) and the Facebook-based *GNI* (x-axis) across Italian regions.[31] The two indices exhibit a strong positive correlation, as evidenced by a Pearson's correlation coefficient of 0.826 ($p < 0.01$). While we acknowledge that Facebook interests *per se* may not necessarily reflect the direction of the interest (as discussed in Section 3), this positive correlation indicates that the *GNI* is a measure of gender conservatism, with higher values corresponding to more conservative attitudes towards gender roles.

progressive attitudes, as more conservative cities tend to be more homogeneous in terms of the origins of their inhabitants. In contrast, in more diverse cities, inhabitants may search for things related to ancestry, which can be associated with open and progressive attitudes.

[31] For comparability, recall that both indexes are standardized.

Figure 1 presents the fine-grained map of gender norms in Italy, where each municipality is colored based on its corresponding value of the *GNI*. Upon visual inspection, two key facts emerge. First, the municipal-level *GNI* maps closely the above-mentioned North-South divide, with municipalities in the South of Italy featuring on average higher values of the *GNI* (darker shade in the map), further confirming the *GNI* as an index of gender conservatism. Second, we can see that the *GNI* features substantial variation not only across regions within Italy (as delimited by black boundaries), but also within regions and even within narrowly defined commuting zones (gray boundaries).[32] As compared to survey data, the key advantage of our index is precisely to capture this fine-grained variation in attitudes, which is essential for our identification strategy.

Figure 1: *GNI* across Italian municipalities



Notes: The Figure displays the Gender Norms Index (*GNI*) across Italian municipalities, which is generated by estimating the selected model on the Facebook gender-related interest vectors of Italian municipalities. The model is selected using a machine learning approach to predict a benchmark survey-based index using interest vectors at the regional level (see Section 4.2). Black boundaries identify Italian regions (20). Gray boundaries identify commuting zones (610).

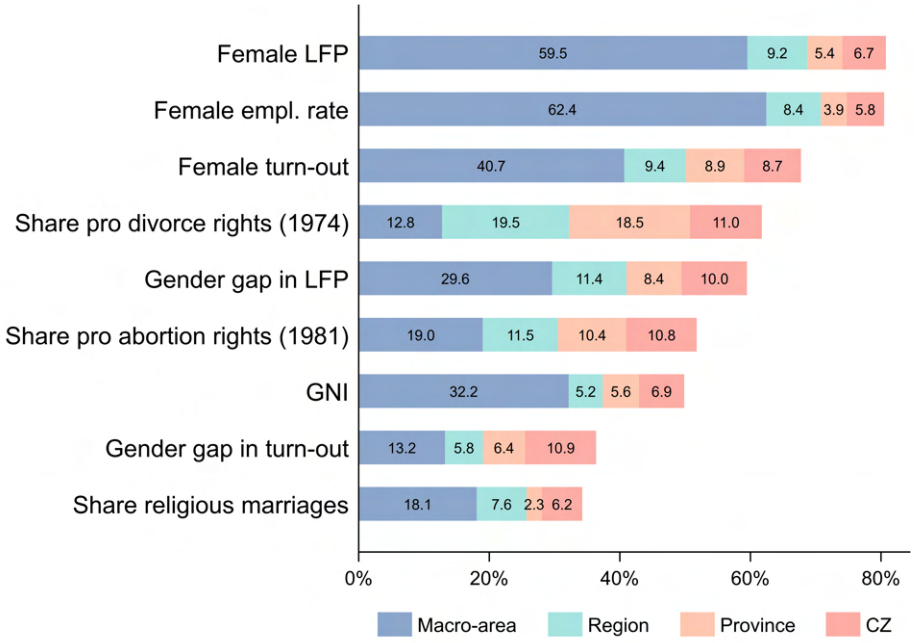
To better understand what drives its variation, in Figure 2, we conduct a simple analysis of the *GNI* variance by investigating how much of the variation in our index is accounted for by different sets of fixed effects. Looking at the *GNI* bar in the figure, we can see that the inclusion of fixed effects for Italy's five macro-areas (North-East, North-West, Center, South, Islands) explains 32.2%

[32]Commuting zones (CZs) are identified based on daily commutes reports from the Italian Institute of Statistics (ISTAT), whereby they are typically used as a definition of local labor markets. There are 610 commuting zones across Italy, with an average of around thirteen municipalities included within each zone.

of the total variance in the municipal-level *GNI*. Introducing region fixed effects accounts for an additional 5.2%, while province and commuting zone (CZ) fixed effects explain respectively an additional 5.6% and 6.9%, for a total of about 50%.[33] Importantly for our approach, these statistics confirm that a great share of the *GNI* variation—about half—plays out among geographically proximate municipalities, even within small commuting zones.

For comparison purposes, we also provide counterpart variance statistics for alternative gender norm proxies. For instance, these fixed effects explain only 34% of the variance in the share of religious marriages, 68% of female voter turn-out variation, and 36% of the gender gap in turn-out. In contrast, labor market outcomes exhibit reduced local variation, with the considered fixed effects accounting for approximately 80% and 60% of the variance in female labor force participation and the gender gap in labor force participation, respectively. This is in line with the geographic clustering of economic activities and local labor markets. In fact, given that commuting zones are defined as areas characterized by homogeneous labor market conditions, we expect limited variation in labor market outcomes within these zones.

Figure 2: Variance decomposition of GNI and alternative cultural proxies



Notes: This figure shows variance decompositions for each of the variables listed on the *y*-axis. For each variable, the corresponding bar shows the proportion of total variance explained by different sets of geographic fixed effects (in %). The blue section in each bar represents the share of total variance explained by fixed effects for Italy's five macro-areas (North-East, North-West, Center, South, Islands). The green, orange, and red sections depict incremental increases in the R^2 when adding region, province, and commuting zone fixed effects, respectively. Variables are ranked based on the total variance explained by these fixed effects (in descending order).

In the remainder of this section, we perform a series of tests to validate the *GNI* ability to

[33] This pattern is confirmed in Appendix Table B3 where we decompose the overall variation in our municipal-level *GNI* index into between and within variation.

capture local gender norms and further dig into the sources of its local heterogeneity.

4.4 Validating the measure

***GNI* vs. proxy measures.** First, we compare the Facebook-based *GNI* to survey measures of gender norms, demonstrating that the *GNI* captures gender attitudes more effectively than alternative proxies, such as female labor market outcomes (Antecol, 2001; Fernández, 2007; Fernández and Fogli, 2009; Le Barbanchon and Sauvagnat, 2021). Due to the absence of representative surveys at the municipal level, direct comparisons with our *GNI* are unfeasible. Therefore, we validate our approach using indices at higher geographic levels where survey-based measures of gender attitudes are available: Italian regions and countries worldwide.

For cross-region validation, we have already presented the region-level Facebook and survey indices, showing that they are strongly correlated (see Appendix Figure B6). For cross-country validation, we generate a survey-based index using data from the 2017–2021 Joint EVS/WVS. To construct the cross-country Facebook-based *GNI*, we first collect data on the popularity of gender-related interests across countries. We then apply the parameter estimates from the regionally trained model (detailed in Section 4.2) to the country-level interest vectors. The cross-country validation thus serves as an out-of-sample test of our estimated model.

Appendix Figure B7 presents the survey-based index of gender norms (Panel A) and the Facebook-based *GNI* (Panel B) across 77 countries with available survey and Facebook data. Notably, the correlation between these two indices is as high as 0.671 (p-value=0.000). Furthermore, in Appendix Figure B8, we compare the *GNI* and other proxies' ability to explain the variance in survey indices. When we regress the survey-based index on the Facebook-based index and other proxies together, the *GNI* is the strongest predictor of the survey index both across Italian regions (Panel A) and countries worldwide (Panel B). In both samples, including the *GNI* leads to a significantly larger increase in R^2 than including any of the other proxies.

Geographical clusters. Analyzing variation in Facebook interests within Italy, we verify that geographically proximate areas share cultural similarities, as reflected in their interest vectors (defined in equation 2). This allows us to test that these similarities in interest emerge even in the raw data, before we use the machine-learning algorithm to derive our composite *GNI*. To quantify the similarity between two locations based on their gender interests, we compute the cosine distance between their respective interest vectors (Obradovich et al., 2020).[34] Using the community detection Louvain algorithm, we also identify so-called 'communities', which represent clusters of similar units within the larger network.[35]

[34] Formally, the cosine distance between two areas g and k measures the angle between their respective interest vectors, V_g and V_k, and is defined as follows:

$$CosDist_{k,g} = 1 - \frac{V_k V_g}{||V_k||\ ||V_g||}.$$

[35] Comparable clusters are obtained under alternative clustering algorithms. For instance, Appendix Figure B11 presents the dendrogram of regions using the unsupervised hierarchical agglomerative clustering (HAC).

Appendix Figure B9 represents the map and network of the Italian regions, where the distances between all pairs of regions are displayed. Thicker links, indicating greater similarity, connect Northern regions with each other, as well as Southern ones. Similarly, three distinct communities of regions are identified, with regions in the North, Central, and South of Italy clustering together.[36] In Appendix Section A.4, we document analogous cultural affinities across province capitals, further confirming the expected similarity in interests across closely located geographic units.

The North-South divide. The *GNI* also captures known geographic patterns in Italy. We already noted in Figure 1 that, while exhibiting substantial local variation, the *GNI* varies reasonably from Northern to Southern municipalities, with *GNI* values progressively increasing. This is confirmed in Figure 3, which illustrates different quantiles of the *GNI* distribution within regions. While the height of vertical lines confirms the substantial within-region heterogeneity in the *GNI*, we can see that, as we move from Northern to Southern regions (from left to right in the plot), the median municipality features relatively higher values of the *GNI*, pointing to more traditional gender attitudes.[37] The same North-South divide emerges when considering the within-province *GNI* distribution, as can been seen in Appendix Figure B12.

Notably, also single gender-related interests reflect this North-South divide. Appendix Figure B13 illustrates North-South disparities in the popularity of selected gender-related interests, paired such that the first (second) interest typically reflects more traditional (progressive) gender views.[38] The differences are computed based on the average interest ratio (*IR*), as defined in equation 1, between Northern and Southern regions. We can see that interests such as *marriage*, *pregnancy*, *breastfeeding*, and *femininity* are relatively more popular in Southern Italy, while topics like *divorce*, *adoption*, *childcare*, and *feminism* are much more diffused in the North.

To gauge the magnitude of these interest variations, Appendix Table B5 displays the interest ratios for the above-mentioned interests in the regions with the lowest and highest ratio values (displayed in columns 3 and 6, respectively). For instance, consider the interest ratios for *marriage*, which is given by 2.12% (2.83%) in the region with the lowest (highest) popularity. In the bottom region there were 160,950 interest signals for *marriage* expressed out of a population of 7,585,700 signals. The corresponding audience in the top region is given by 1,100,000, but this is out of a much larger total of 38,860,248 signals. Although interest ratios are hard to interpret, this indicates substantial variation in interest and, in turn, norms across regions.

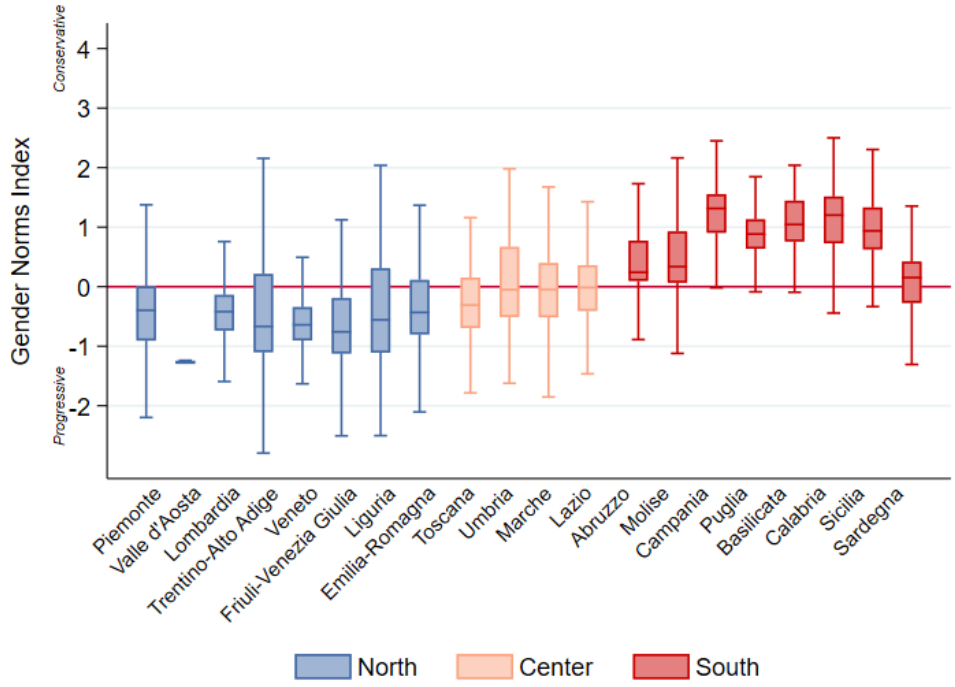
As additional sanity check, also generic (not gender-related) interests match expected inter-

[36] Interestingly, the Lazio region, although in Central Italy, clusters with Northern regions. This is likely because Rome, Italy's capital accounting for about half of Lazio's population, shares similarities with other large cities in the North, like Milan and Turin, bringing it closer to the Northern community.

[37] Interestingly, the region of Sardinia is an exception to this trend. Despite being in the South, its median city has an index closer to 0, which makes it culturally more similar to regions in Central Italy rather than Southern regions. This cultural heterogeneity is consistent with historical differences between cereal-producing villages and the pastoral mountain communities of Sardinia, as well as the presence of matri-uxoral communities (see Oppo, 1990).

[38] Appendix Figure B10 shows the maps of Italy for the considered interests, where each region is colored according to the corresponding normalized interest ratios.

Figure 3: Cross-regional variation in the *GNI*



Notes: The Figure depicts different quantiles of the distribution of the Gender Norms Index (*GNI*) across Italian municipalities by region. For each region, the shaded box ranges from the first quartile (Q1) to the third quartile (Q3) of the distribution of the *GNI*. The median is indicated by a line across the box. The vertical lines on each box extend from Q1 and Q3 to the most extreme data points. Outliers are not shown. The larger the index, the more traditional a given area is. Regions are colored depending on whether they are located in Northern (blue), Central (orange), or Southern (red) Italy.

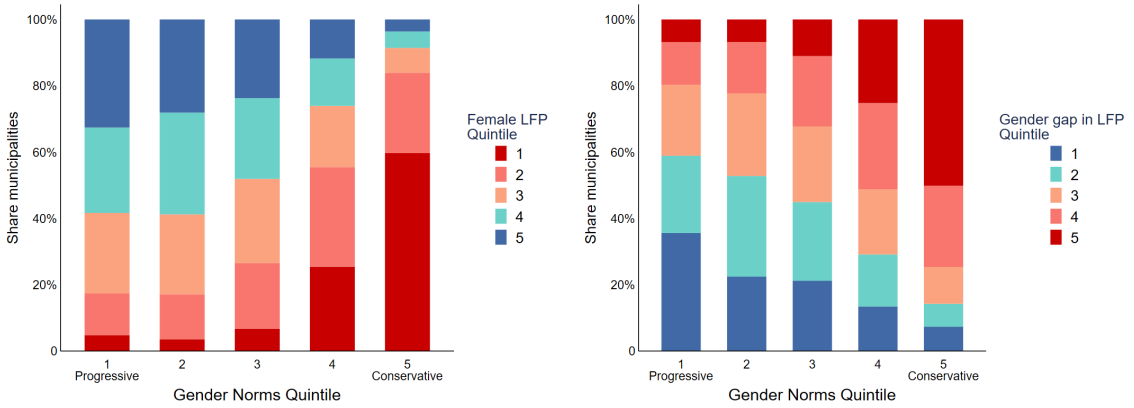
regional patterns. For instance, interest for *skiing* and *hiking* is stronger in the mountainous areas of the North, for *Etna volcano* in Sicily (where it is located), for *pesto* in Liguria (its home region), and popularity of *Five Stars Movement* strongly correlates with its vote share in the 2018 general election, with correlation given by 0.812 (see Appendix Section A.5). This further confirms the ability of Facebook data to capture individuals' cultural values and preferences.

Town-level gender norm proxies and socioeconomic indicators. After confirming regional trends, we delve into the local variation of the *GNI* by studying how it correlates with proxies for gender norms used as alternatives to attitudinal surveys (e.g., Antecol, 2001; Fernández, 2007; Fernández and Fogli, 2009; Le Barbanchon and Sauvagnat, 2021), and socioeconomic variables.

Starting from labor force participation (LFP), Figure 4 shows that more gender-conservative municipalities tend to have lower rates of female LFP (Panel A) and higher gender gaps in LFP (Panel B). About 33% of the municipalities in the bottom quintile of the *GNI* distribution (progressive) have a female LFP rate exceeding 81.5% (corresponding to the top quintile of the municipal female LFP distribution), while only 4% of the municipalities in the top 20% of the *GNI* distribution (conservative) have such a high female labor supply. Similarly, Panel B shows that only 7% of the top progressive municipalities have a gender gap in LFP above 23%, while 50% of the most

conservative municipalities feature such a high gender gap.[39] Similarly, examining female participation in the political sphere based on turnout in the 2018 general election, Appendix Figure B15 shows that more conservative municipalities have lower female voter turnout (correlation of -0.59) and a larger gender gap in voting (correlation of 0.54).[40]

Figure 4: *GNI* and female labor market outcomes



(A) Female LFP

(B) Male-female difference in LFP

Notes: The stack bar graphs display the relationship between municipal-level female labor market outcomes and the *GNI*, grouped into quintiles. The x-axis indicates the quintile of the *GNI* (with bottom quantiles indicating more progressive attitudes, and top quantiles more conservative ones), while bars are colored according to the proportion of municipalities falling in each of the five quintiles of female labor force participation (Panel A) and the male–female difference in labor force participation (Panel B). In each panel respectively, red indicates the 1^{st} and 5^{th} quintiles (low female labor force participation and high gender gap in labor force participation), while blue indicates the 5^{th} and 1^{st} quintiles (high female labor force participation and low gender gap in labor force participation). The quintiles for female labor force participation are as follows: 23.1%, 62.0%, 71.9%, 77.9%, 81.5%. The quintiles for the gender gap in labor force participation are as follows: -28.6%, 11.3%, 14.2%, 17.6%, 22.5%. The data on labor force participation are from the Italian Institute of Statistics (ISTAT) and refer to women aged 25–49.

Given that our empirical strategy relies on variation in norms within local areas, we verify that these correlations persist at the local level, specifically within commuting zones (CZs), the smallest possible administrative areas. We also analyze the share of religious marriages, as well as support for divorce and abortion rights in the 1974 and 1981 referenda as proxies for religious and historical gender attitudes, respectively.[41] Figure 5 confirms that municipalities with more conservative attitudes (higher *GNI* values on the x-axis) exhibit lower female LFP and electoral turn-out, higher gender differences in turn-out and employment, more religious marriages, and lower support for abortion and divorce rights in the 1981 and 1974 referenda. All these relationships are significant at the 1 percent level within CZs, except for the gender gap in turn-out (significant at the 10 percent

[39] Appendix Figure B14 shows a similar pattern for female employment, although the relationship is less linear than in the case of female labor supply, possibly due to the increased influence of demand factors. In line with this, while female labor supply and employment are both equilibrium outcomes determined by supply and demand factors, female labor supply is typically considered a better proxy for gender attitudes.

[40] We do not consider fertility rates, as the relationship between gender roles and fertility rates is not as clear-cut as it is for labor force participation or political participation (Doepke et al., 2022).

[41] Research suggests that religious beliefs shape gender roles, with more religious people being less favorable with respect to working women and women's rights (Guiso, Sapienza and Zingales, 2003; Lussier and Fish, 2016).

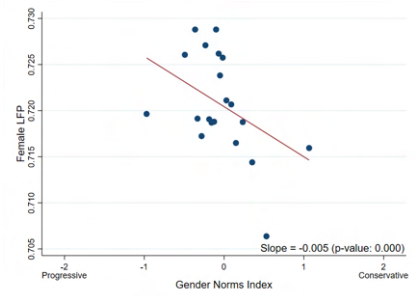
level).

The *GNI* also varies intuitively with town-level socioeconomic indicators. As shown in Appendix Figure B16, more gender-conservative municipalities have larger shares of low-educated individuals and smaller shares of college graduates, smaller population sizes and lower incomes. These correlations are strong and significant at the 1% level, even within CZs. This suggests a clear relationship between local gender attitudes and socioeconomic attributes, with more progressive larger municipalities exhibiting enhanced economic prosperity and education levels, consistently with expectations based on a rural-urban divide.

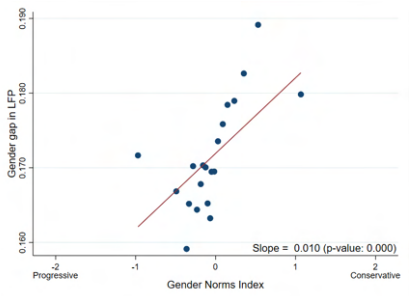
Finally, Figure 6 brings together all the aforementioned cultural proxies and socioeconomic indicators to assess their respective predictive power for *GNI*. Panel A summarizes (population-weighted) univariate correlations with the *GNI*.[42] Notably, when we regress the *GNI* on standardized versions of these variables together (Panel B), female LFP is the strongest predictor of our index, surpassing by far any other proxy and indicator. Consistently, a Lasso regression selects female LFP as the first predictor of the *GNI*, placing greater weight on it than on other variables, for any value of the Lasso penalty parameter (Appendix Figure B18). Moreover, while female LFP alone explains almost 60% of the variation in the *GNI*, the increase in the R^2 when adding all other variables is minimal (Appendix Figure B19).[43] This further supports the *GNI* ability to capture attitudes specifically related to women's roles, given that female LFP is the most common proxy for measuring gender norms in the absence of survey data.

[42] Appendix Figure B17 displays the correlation matrix between any two pair of variables.
[43] These tests mirror Chetty et al. (2022*a*) who use them to show how economic connectedness predicts upward mobility.

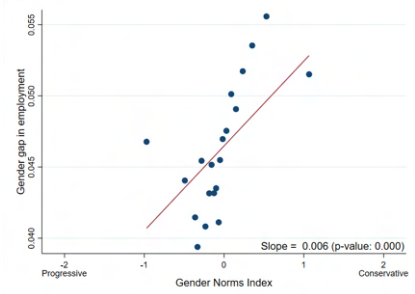
Figure 5: GNI and town-level gender norm proxies



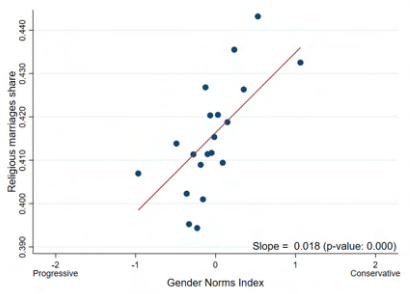
(A) Female LFP



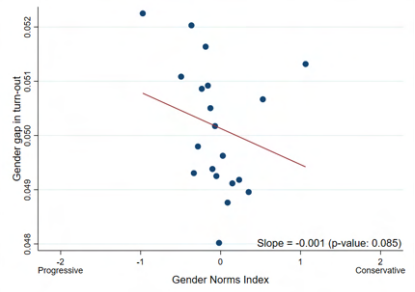
(B) Gender gap in LFP



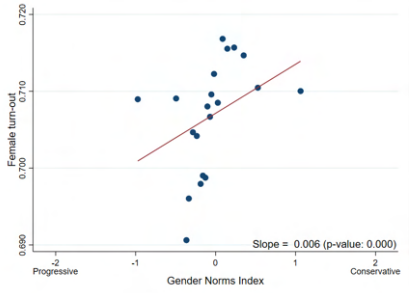
(C) Gender gap in employment



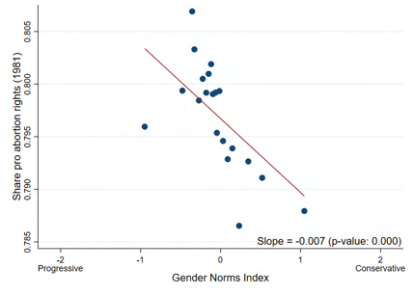
(D) Share religious marriages



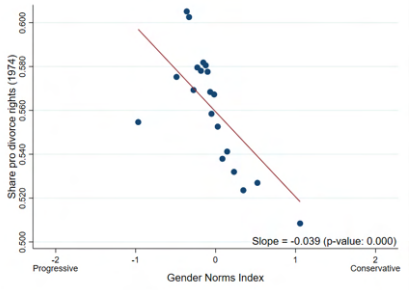
(E) Female turn-out



(F) Gender gap in turn-out



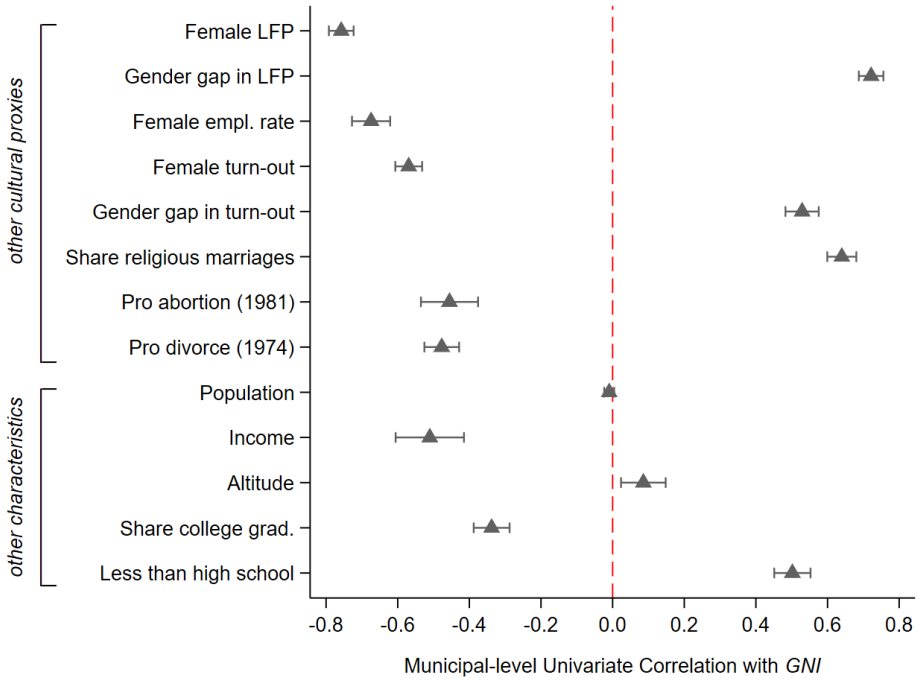
(G) Pro-abortion (1981)



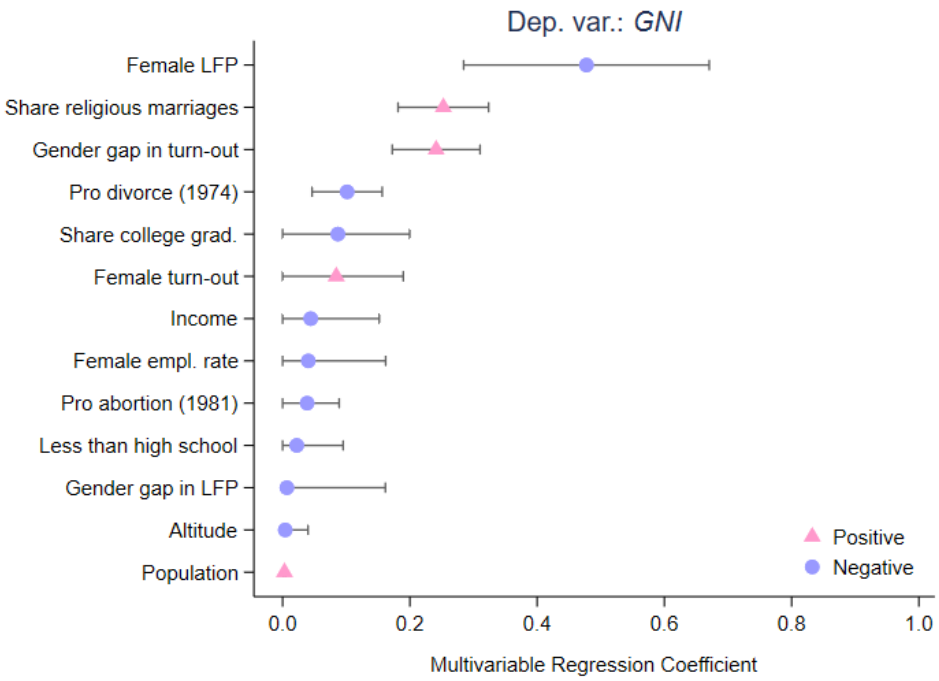
(H) Pro-divorce (1974)

Notes: The Figure illustrates the relationship between the *GNI* and different gender norm proxies across Italian municipalities, residualized after controlling for commuting zones (CZs) fixed effects. Starting from Panel (A), each panel considers a proxy measure: female labor force participation, gender gaps in labor force participation and employment rates, the proportion of religious marriages, female voter turnout, turnout gender gap, and support percentages for abortion and divorce rights in the 1981 and 1974 referenda, respectively. These binned scatter plots are generated by first regressing the considered outcome variable (y-axis variable) and the *GNI* (x-axis variable) on the set of CZs fixed effects, and then generating the residuals from these regressions. The residualized variables are then plotted, after adding back the means of each variable for scaling purposes (see Chetty, Friedman and Rockoff, 2014). The solid line shows the best linear fit estimated on the corresponding fixed effect regression. The regression coefficient shows the estimated slope of the best fit line, with the corresponding p-value.

Figure 6: Municipal-level correlations between *GNI* and other municipal characteristics



(A) Population-weighted univariate correlations



(B) Multivariable regression coefficient on standardized variables

Notes: Panel A displays the coefficients from separate population-weighted OLS regressions of the dependent variable (the *GNI*) on each of the regressors of interest (indicated on the *y*-axis). Panel B displays estimates from a multivariable regression of the *GNI* on all of these variables together. To allow for comparability across coefficient magnitudes, in the latter case both the *GNI* and the independent variables are standardized to have a mean of zero and a standard deviation of one. Recall that the larger the *GNI*, the more traditional a given municipality is. 95% confidence intervals are displayed.

5 Gender norms and bill sponsorship in the Parliament

After bolstering our confidence that the *GNI* is capturing variation in municipal-level gender attitudes, we now use it to investigate the extent to which these differences in gender norms carry over to the preferences and legislative behavior of politicians in the Italian Parliament. Specifically, we examine whether gender norms in a politician's hometown influence their activities in the context of lawmaking, a crucial aspect of their role. In Section 5.1 we focus on our main outcome of interest, legislators' engagement with women's issues, and then examine the other bill topics beyond women's issues (Section 5.2).

5.1 Gender norms and bill sponsorship on gender-related issues

5.1.1 Empirical framework

To identify the impact of gender norms on legislators' commitment with women's issues, we test whether being born in a relatively conservative municipality—as measured by the *GNI* in the politician's hometown—affects the extent to which they actively sponsor bills related to gender issues. Formally, we estimate variants of the following model:

$$\begin{aligned} Y_{i,j,k,t} &= \beta_0 + \beta_1 \cdot female_i + \beta_2 \cdot HighGNI_j + \beta_3 \cdot female_i \cdot HighGNI_j + \\ &+ \mathbf{X}'_{i,t}\boldsymbol{\gamma} + female_i \times \mathbf{W}'_j\boldsymbol{\delta} + \lambda_{k,t} + \varepsilon_{i,j,k,t} \end{aligned} \tag{3}$$

where i indexes the legislator, j her hometown, k the electoral district (or the party coalition, in alternative specifications), and t the legislative term. The dependent variable, $Y_{i,j,k,t}$, measures the number of gender-related bills sponsored by a politician in a given legislature. Our focus is on the intensive margin, given that nearly 80% of politicians have sponsored at least one bill related to gender issues. The variable $HighGNI_j$ is an indicator for politicians born in municipalities with relatively conservative gender norms. Specifically, $HighGNI_j$ takes the value of one if the politician's birthplace ranks within the top tercile in terms of conservative gender norms, as measured by the *GNI*. In robustness tests below, we will show that results are robust to using different percentile thresholds.

The vector $\mathbf{X}_{i,t}$ includes individual characteristics, namely the politician's age and parliamentary tenure, as well as indicators for freshman status, education level, previous occupation, and affiliation with left, center or right political coalitions.[44] As we will discuss in more detail later in this section, controlling for other characteristics of legislators is particularly crucial for our analysis. Indeed, these variables are likely endogenous to politicians' gender attitudes and can impact their interests and legislative activity. For instance, women originating from conservative towns might face challenges in terms of re-election prospects, and have shorter parliamentary tenures, potentially leading them to strategically prioritize more popular topics.

The key advantage of our municipal-level measure of gender norms is that we can augment

[44] For the categorization of political parties into left, center, and right coalitions, refer to Appendix Table B1.

our estimation strategy by various sets of other municipal-level characteristics and fixed effects. Specifically, in many specifications, we include other municipal-level controls, $\mathbf{W}_j$, interacted with the $female$ dummy, reflecting the municipal population, per-capita income, the proportions of low-educated individuals and college graduates. In fact, these characteristics could plausibly confound the effect of gender norms on a politician's engagement in women's topics. For instance, female politicians originating from towns characterized by lower per-capita income might prioritize other concerns—such as health or labor issues—over gender equality, not because of their conservative gender roles, but out of economic necessity. If a town's gender norms are correlated with its per-capita income (as shown in Section 4.4), this would bias our coefficient of interest β_3 upward.

Furthermore, to disentangle the interests of legislators from their constituencies' preferences and party influences, we include either district-by-legislature fixed effects or party-by-legislature fixed effects, denoted by $\lambda_{k,t}$. Both allow to account for key (potentially unobserved) determinants of a politician's behavior in the Parliament. The former absorb any unobserved difference across electoral districts within given legislative terms, so that estimation relies only on variations in the birth town of politicians elected in the same district and legislature. This helps to control for differences in constituency demands across districts.[45] The latter, instead, allow to compare politicians who are elected in the same party and in the same legislature, thus allowing to absorb differences in political ideologies and party influences. Finally, to account for potential correlation in the error term across politicians originating from the same town, robust standard errors are clustered at the birth town level.

In specification 3, the parameter of interest is β_3, namely the additional effect of being a female politician born in a gender-conservative town. Because we include legislature $\times$ electoral district/political party fixed effects, the effect of interest is identified from variations in lawmaking activity across politicians who are elected within the same legislative terms and district/party, but who were born in municipalities featuring different levels of gender norms.

To the extent that the coefficient estimate is significantly different from zero, it suggests that female politicians are differentially prone to sponsor gender-related bills depending on the level of gender norms prevailing in their hometowns. For instance, a parameter estimate of $\beta < 0$ would indicate that females from more conservative places (with $HighGNI_j = 1$) are less involved in legislating on gender-sensitive topics, as compared to their more progressive female peers.

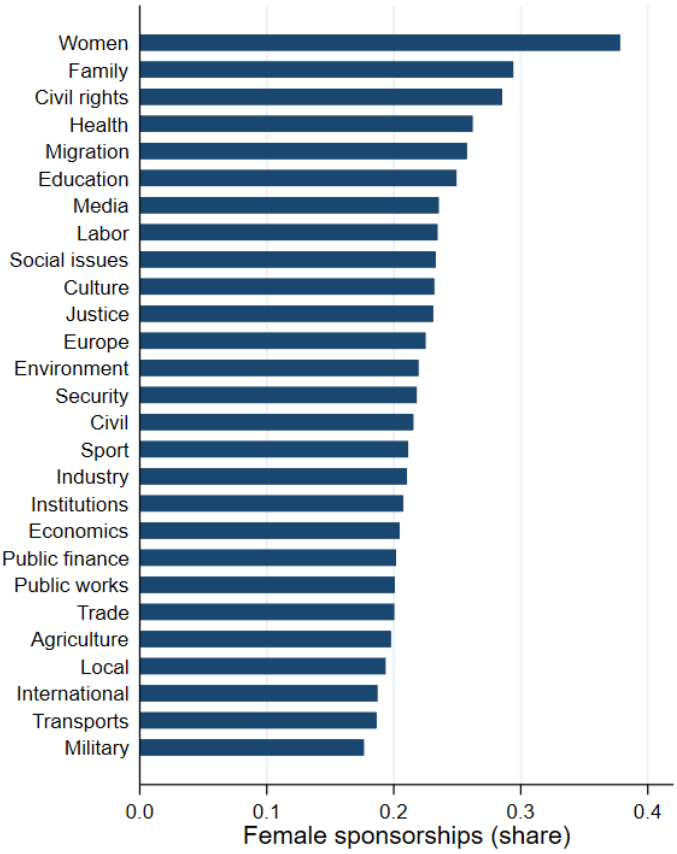
5.1.2 Results

Before analyzing the impact of gender norms on lawmaking, we first present suggestive evidence concerning gender differences in legislative activity, consistent with prior research (e.g., Gerrity, Osborn and Mendez, 2007; Clots-Figueras, 2011; Hessami and da Fonseca, 2020; Lippmann, 2022).

[45] While the inclusion of district-by-legislature fixed effects allows to compare politicians elected in the same electoral district, however, it does not control for the fact that politicians may be influenced by pressures from their hometown constituency, especially if they come from small towns. In Section 6, we will drop politicians originating from small towns and show that our main results still hold.

Figure 7 illustrates the proportion of bill sponsorships by female politicians across policy topics over the legislative terms considered. Bills addressing women's issues have the highest female sponsorship, with almost 40% of the total. Considering that female politicians represent only about 18% of all legislators across these terms, this highlights the significant commitment of female legislators in these areas compared to their male counterparts. Additionally, women also exhibit active involvement in topic areas such as family, civil rights, health, education, and labor issues, though their sponsorships never exceed 30% in these areas. On the other extreme, women are less active in topics like economics, public finance, public works, agriculture, transportation, and military issues. For instance, male sponsorships account for over 80% of total sponsorships in the military topic.

Figure 7: Gender composition of bill sponsorships



Notes: The graph illustrates the share of sponsorships by female politicians across the 26 non-mutually exclusive topics and the additional 'women' subcategory, displayed in descending order. The data is obtained from the Italian House of Representatives and include all the bills sponsored between 1987 and 2022.

Next, we present our main results regarding the influence of gender norms in a politician's birth town on the legislative involvement with women's issues in the Parliament, Table 2 reports the estimates obtained from estimating versions of Equation 3, with the dependent variable representing the number of gender-related bills sponsored by a politician. In column (1), where we include only the $female$ dummy as a regressor, we confirm that women sponsor significantly

more gender-related bills compared to men, in line with the descriptive evidence from Figure 7. On average, politicians sponsor 3.140 gender-related bills in a legislative term. Notably, this number rises by 4.168 bills for female politicians ($p < 0.01$), corresponding to an increase of over 130% compared to the average in the whole sample.

Table 2: Gender norms and bill sponsorship on gender issues

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dep. Var.:	*Number of bills sponsored on gender issues*						
Female	4.168***	4.444***	4.357***	6.387***	5.976***	6.587***	6.743***
	(0.197)	(0.240)	(0.240)	(1.744)	(1.587)	(1.732)	(1.645)
Female × *HighGNI*		-1.022***	-0.936**	-1.211***	-1.097***	-0.962**	-1.008**
		(0.377)	(0.363)	(0.425)	(0.420)	(0.439)	(0.440)
HighGNI		0.038	0.007	-0.014	0.062	-0.065	-0.017
		(0.097)	(0.095)	(0.097)	(0.096)	(0.156)	(0.146)
Age			0.010**	0.009*	-0.002	0.005	-0.004
			(0.004)	(0.005)	(0.005)	(0.005)	(0.005)
College degree			-1.477	-1.537	-3.454***	-2.891***	-3.813***
			(1.231)	(1.197)	(0.790)	(0.866)	(0.834)
Freshman			-0.423***	-0.450***	-0.410***	-0.335***	-0.465***
			(0.107)	(0.109)	(0.094)	(0.108)	(0.101)
Tenure			-0.200***	-0.205***	-0.174***	-0.162***	-0.184***
			(0.031)	(0.031)	(0.031)	(0.032)	(0.032)
Center coalition			-0.958***	-0.949***		-0.323***	
			(0.125)	(0.125)		(0.123)	
Right coalition			-0.137	-0.137		-0.109	
			(0.129)	(0.132)		(0.142)	
Individual Controls			Yes	Yes	Yes	Yes	Yes
Female × Birth town controls				Yes	Yes	Yes	Yes
Party-by-legislature fixed effect					Yes		Yes
District-by-legislature fixed effect						Yes	Yes
Observations	5,635	5,635	5,634	5,498	5,498	5,482	5,482
Clusters	1,220	1,220	1,220	1,170	1,170	1,168	1,168
Adj. R-squared	0.17	0.18	0.56	0.56	0.61	0.59	0.61
Mean Outcome	3.140	3.140	3.140	3.148	3.148	3.150	3.150

Notes: This table reports the results of OLS regressions where the dependent variable measures the number of bills sponsored on gender-related issues by a politician in a given legislature. *Female* is a dummy equal to 1 if the politician is a woman. *HighGNI* is a dummy equal to 1 if the politician is born in a gender-conservative municipality, namely in a municipality in the top tercile in terms of conservativeness of gender norms, as measured by the birth town GNI. Individual controls include the politician's age and parliamentary tenure (in terms of legislative terms), as well as indicators for freshman status, education level, previous occupation, and affiliation with left, center or right political coalitions. Birth town controls are all interacted with the *female* dummy and include the municipality's population, per-capita income, the share of college graduates, and a dummy for province capitals. The sample includes all members of the Italian House of Representative elected between 1987 and 2022, corresponding to Legislatures X to XVIII. Robust standard errors clustered at the birth town level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

In Column (2), we can see that the coefficient β_3 on the interaction between $HighGNI_j$ and the dummy for female legislators, our main parameter of interest, is negative and statistically significant ($p < 0.01$). The estimate, which is given by -1.022, is also large in magnitude, accounting for nearly a quarter of the $female$ dummy's coefficient alone. Hence, while female legislators generally exhibit greater engagement in legislative activities on gender issues compared to their male counterparts, this greater commitment diminishes significantly if they originate from gender-

conservative towns. In addition, we reject the null hypothesis of equality between the additional effect of being female from a conservative town, β_3, and the effect of conservative gender norms on male politicians, β_2 ($p < 0.01$). This confirms that female legislators from conservative towns sponsor significantly fewer gender-related bills than their more progressive female peers.

Furthermore, the coefficient on the $HighGNI_j$ dummy alone—namely the effect of being born in a gender-conservative town on male politicians—is never statistically significant according to conventional levels. This result is consistent with the gender-specific role that these norms play in shaping women's versus men's outcomes (in this case, legislative agendas), particularly for female politicians. It effectively rules out the possibility that the observed effect on females stems from a more generic form of conservatism that would apply uniformly to both genders. While individual economic-related factors, such as total household resources or parental altruism, matter for male legislators as well (Washington, 2008; Tertilt et al., 2022), gender norms are more likely to systematically influence female legislators specifically. This aligns with the fact that male politicians generally exhibit reduced engagement with gender-related issues compared to their female counterparts, as evidenced by their significantly fewer sponsorships of gender-related bills. Moreover, the variance in gender-related bill sponsorships further supports this argument: the standard deviation for female legislators is 5.9 (ranging from 0 to 62 gender-related bills), whereas for males, it is notably lower at 2.6 (with a maximum of 24). This discrepancy reveals that male legislators tend to be more homogeneous in their (lower) commitment to women's issues, in contrast to the more heterogeneous positions of female legislators, which are partly influenced by gender norms.

The estimated effect of interest β_3 remains robust—both in magnitude and statistical significance—to the inclusion of controls for politicians' individual characteristics, political experience, and party affiliation (Column 3), together with municipality-of-birth controls interacted with the $female$ dummy (Column 4).[46] In particular, we highlight how political affiliation variables matter for sponsorship of gender-related bills. Unsurprisingly, we observe that legislators in center and right-wing coalitions tend to sponsor fewer gender-related bills compared to their counterparts in left-wing coalitions (although the point estimate is significant at the 1% level only for the former).

To absorb the impact of unobservable constituency preferences and party influences, we introduce district-by-legislature fixed effects (Column 5), party-by-legislature fixed effects (Column 6), and both sets of fixed effects (Column 7). The coefficient remains negative and statistically significant. In particular, when considering all controls and fixed effects in Columns 5 and 6, the coefficient estimate of β_3 is respectively given by -1.097 and -0.962, corresponding to about 35% and 30% of the outcome mean.

Taken together, our findings highlight the importance of gender norms in female politicians' birth municipalities in shaping their legislative activity in the Parliament. Additionally, the fact that the results still hold when comparing politicians elected in the same district and party sug-

[46] In contrast, the coefficient on the $female$ dummy jumps from 4.357 to 6.387 in Column (4) when we introduce interactions between the $female$ dummy and municipality-of-birth characteristics. This is because this coefficient now measures the impact in the excluded municipality and therefore cannot be directly compared to the counterpart coefficient in previous columns.

gests that differences in engagement are unlikely to be driven by party or constituency effects, but are rather driven by legislators' own policy interests and preferences. In Section 6, we will present additional tests to further support this interpretation.

Before verifying the robustness of our findings, let us note that, while our dependent variable captures legislative activity on women's issues, it does not specify the nature of this activity. However, even if a bill addresses gender issues, its purpose might not be to promote gender equality or could even work against it. This highlights a key limitation of text analysis and topic modeling algorithms: they categorize policy topics effectively but cannot interpret the direction or intent of a bill.

To address this concern, we manually distinguish gender-related bills that clearly advocate for gender equality from those with uncertain or unspecified gender-related impacts. We specifically identify bills that emphasize gender parity, equal opportunities, and women's rights, such as those clearly promoting women's independence and increased participation in the labor force. We distinguish them from those that might instead have ambiguous gender effects, where the impact on gender equality may be uncertain or not explicitly stated. These bills may lack a clear focus on gender equality, or their ultimate consequences regarding gender issues might be ambiguous. For instance, consider the bill titled "*Provisions for the protection of the maternal role in the educational and social function of the family.*"(N. 4832, 10^{th} legislature). While our dictionary-based algorithm categorizes it as related to women's issues, the presence of provisions fostering equal roles for men and women within families is not evident.

Therefore, we verify that our results remain consistent when specifically focusing on the subset of bills that unequivocally support gender equality. Table 3 presents estimates where the dependent variable measures the number of sponsored bills, distinguishing between those clearly promoting gender equality (Columns 1 to 5), and those with ambiguous gender effects (Columns 6 to 10). We can see that the negative impact of gender norms emerges only in the former case, when it comes to sponsoring bills that actively advance gender balance. Specifically, we observe a strong negative impact ($p < 0.01$) of gender-conservative norms on female legislators' engagement with these pro-equality bills. In contrast, the effect is never significant at conventional levels for bills with ambiguous gender effects. Consistently, estimates related to political affiliation show that, compared to their left-wing counterparts, center and right-wing politicians sponsor fewer pro-equality bills and more with ambiguous gender effects. Finally, we note that the precision of our key interaction variable remains similar across both bill categories, ruling out the possibility that observed differences in significance are driven by changes in estimation precision.

Hence, our findings highlight how gender norms matter for female legislators' engagement with gender issues, particularly when it comes to bills intended to enhance the role of women in society, confirming the significance of culture and social norms in steering legislative activity and societal progression.

Table 3: Gender norms and bill sponsorship on gender issues—Pro-gender equality *vs.* gender-ambiguous bills

Dep. Var.:	*Number of bills sponsored on gender issues*									
	Number of bills promoting gender equality					*Number of bills with ambiguous gender effects*				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Female	2.733***	2.965***	4.431***	4.558***	4.708***	1.174***	1.218***	1.332**	1.632**	1.702***
	(0.130)	(0.159)	(1.050)	(1.096)	(1.086)	(0.077)	(0.093)	(0.632)	(0.687)	(0.625)
Female × *HighGNI*		-0.837***	-0.873***	-0.775***	-0.805***		-0.181	-0.208	-0.143	-0.180
		(0.266)	(0.282)	(0.294)	(0.296)		(0.150)	(0.149)	(0.169)	(0.161)
HighGNI		0.093	0.107*	0.009	0.020		-0.057	-0.057	-0.065	-0.044
		(0.064)	(0.061)	(0.103)	(0.097)		(0.039)	(0.041)	(0.061)	(0.058)
Center coalition				-0.429***					0.075	
				(0.078)					(0.049)	
Right coalition				-0.367***					0.194***	
				(0.086)					(0.054)	
Individual Controls			Yes	Yes	Yes			Yes	Yes	Yes
Female × Birth town controls			Yes	Yes	Yes			Yes	Yes	Yes
Party-by-legislature fixed effect			Yes		Yes			Yes		Yes
District-by-legislature fixed effect				Yes	Yes				Yes	Yes
Observations	5,635	5,635	5,498	5,482	5,482	5,635	5,635	5,498	5,482	5,482
Clusters	1,220	1,220	1,170	1,168	1,168	1,220	1,220	1,170	1,168	1,168
Adj. R-squared	0.18	0.18	0.33	0.31	0.33	0.09	0.09	0.21	0.17	0.22
Mean Outcome	1.692	1.692	1.694	1.696	1.696	1.015	1.015	1.019	1.018	1.696

Notes: This table reports the results of OLS regressions analyzing the sponsorship of bills related to gender issues by politicians in the Italian House of Representatives (1987 to 2022). The dependent variables in Columns 1 to 5 represent the number of bills clearly promoting gender equality, while Columns 6 to 10 consider bills with ambiguous gender effects. *Female* is a dummy equal to 1 if the politician is a woman. *HighGNI* is a dummy equal to 1 if the politician is born in a gender-conservative municipality, namely in a municipality in the top tercile in terms of conservativeness of gender norms, as measured by the birth town *GNI*. Individual controls include the politician's age and parliamentary tenure (in terms of legislative terms), as well as indicators for freshman status, education level, previous occupation, and affiliation with left, center or right political coalitions. Birth town controls are all interacted with the *female* dummy and include the municipality's population, per-capita income, the share of college graduates, and a dummy for province capitals. The sample includes all members of the Italian House of Representative elected between 1987 and 2022, corresponding to Legislatures X to XVIII. Robust standard errors clustered at the birth town level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

5.1.3 Robustness

Alternative definitions of gender-conservative towns. As a first robustness check to our main results, we show that the impact of gender norms for female legislators, documented in Table 2, persists under alternative definitions of our measure for gender-conservative towns, the $HighGNI_j$ indicator. First, in Appendix Table B6, we replicate Table 2 using a less strict measure of conservatism, with $HighGNI_j$ taking value of one for politicians born in a municipality that ranks above the median—instead of within the top tercile—in terms of conservative gender norms. In this case, despite the expected smaller magnitude, the estimate on the interaction between being a female and being born in a conservative town is still negative and statistically significant at least at the 10% level in all specifications.

Second, we re-estimate our main specification using different percentile thresholds for defining conservative towns based on the *GNI*. Appendix Figure B20 displays the estimated coefficient of interest across various percentile cutoffs, ranging from the 5th to the 50th percentile, along with their 95% confidence intervals. With the exception of the highest percentiles where the coefficients are imprecisely estimated, the estimates remain stable when considering percentiles close to the top tercile (around the top 33rd percentile), which is the definition used in our main analysis. As we move towards a less strict definition of conservative towns (up to the 50th percentile), the magnitude and statistical significance of the effect decrease.

Gender norms over time. A related potential concern regarding our definition of conservatism comes from the fact that our *GNI* ranks Italian municipalities based on contemporary gender attitudes. Yet, the average ages of female and male politicians in the Parliament are 45.2 and 49.5 years old, respectively, implying birth dates spanning from the 1950s to the 1980s. While we acknowledge that gender norms in that time period might differ from today's standards, we provide suggestive evidence limiting our concerns about the impact of measurement error in our main regressor of interest.

First, even if gender norms have evolved significantly over the past decades, this does not necessarily introduce bias in our empirical strategy. What matters for us is that the distribution of norms across municipalities today does not substantially differ from the cross-section distribution of norms back then. This means that as long as the municipalities currently categorized within the top tercile of the norms distribution based on our *GNI* reasonably coincide with those that would have fallen into the same category five decades ago, not observing gender norms during politicians' youth is not a threat for us. Unfortunately, the lack of historical municipal-level gender norm data makes it impossible for us to confirm this trend. At the same time, we recall that our *GNI* strongly correlates with two potential historical proxies, namely support for divorce and abortion rights in the 1974 and 1981 referenda, with correlation coefficients of -0.48 and -0.46, respectively (see Appendix Figure B17).[47]

Second, though we cannot directly measure the longitudinal correlation in the ranking of mu-

[47] These correlations are quite strong, particularly considering that the correlation between the two proxies is only slightly higher (and given by 0.62).

nicipalities based on gender attitudes, we can do so for Italian regions using survey data. Using Principal Component Analysis on attitude questions from multiple survey waves, we construct survey-based indices of gender attitudes over time.[48] Appendix Figure B21 shows measures of gender attitudes across the ten most populous Italian regions in the earliest and latest survey waves (1990–1993 and 2017–2020, respectively). For instance, the upper graph shows the consistent decline in the proportion of individuals agreeing with the statement "*When jobs are scarce, men have more rights to a job than women.*" This suggests that regions that were deemed conservative or progressive in the 1990s retain similar rankings today. More formally, Appendix Table B8 presents the correlation matrix for survey-based gender attitude indices over time. Reassuringly, the Spearman's rank correlation coefficient between the first and last survey waves is as high as 0.711 ($p < 0.01$). This points to a substantial similarity in ranking based on gender attitudes across regions, even after thirty years.

Moreover, we show that our main results are robust to restricting the sample to younger politicians. Thanks to their more recent birth dates, we expect that the GNI more accurately reflects the norms that they were exposed to during their formative years, thus reducing concerns of measurement error. Appendix Table B9 shows our main estimates across various age ranges. Consistently with this interpretation, the point estimate of the interaction term increases in magnitude as we narrow down the sample to younger legislators. While the statistical significance of these estimates in some cases decrease due to reduced precision, this pattern reduces our concerns about the effect of measurement error.

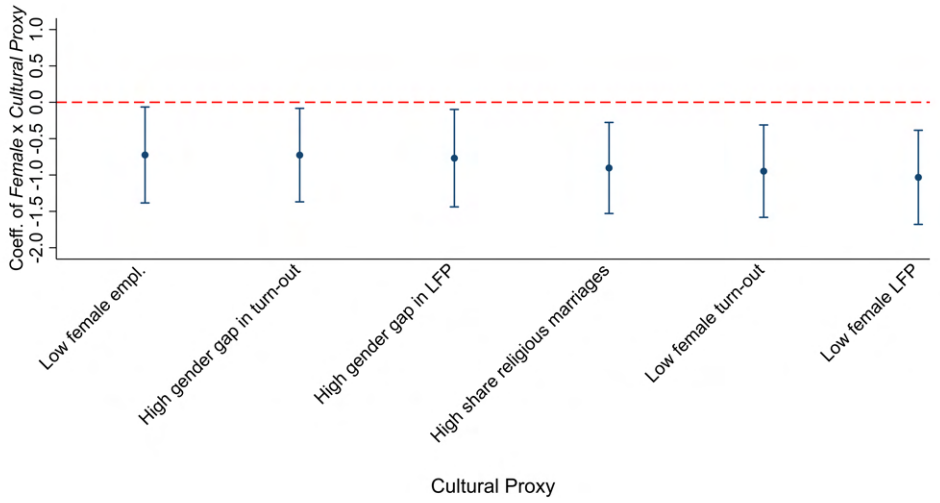
Taken together, these findings suggest that the cross-sectional distribution of gender attitudes exhibit significant persistence over time. Therefore, despite being based on recently-collected Facebook data, our *GNI* likely ranks municipalities in a way that closely mirrors the ranking from the recent decades. Additionally, we have shown that the estimated impact of gender norms is more relevant for younger politicians, for whom the *GNI* is expected to be a more reliable proxy. Hence, we can conclude that potential concerns stemming from the measurement of norms in the recent years should not significantly bias our conclusions.

Alternative proxies and placebo. While our *GNI* appears to be a reliable measure of gender norms in politicians' hometowns, we replicate our findings using alternative proxies. In Appendix Table B10, we re-estimate our main specification using the gender gap in labor force participation (e.g., similarly to Le Barbanchon and Sauvagnat, 2021) and confirm the robustness of our main effect of interest. Notably, the estimates exhibit a similar magnitude, indicating that female legislators born in towns where the gender gap in labor force participation ranks in the top tercile sponsor, on average, -0.81 to -1.13 fewer gender-related bills compared to their female counterparts born in towns with greater gender equality. Additionally, Panel A of Figure 8 shows that the interaction term is always negative and statistically significant even when using the other proxies, such as the share of religious marriages or the gender gap in turn-out at the 2018 national elections. Conversely, as a placebo test, Panel B of Figure 8 shows that the effect is not significantly different

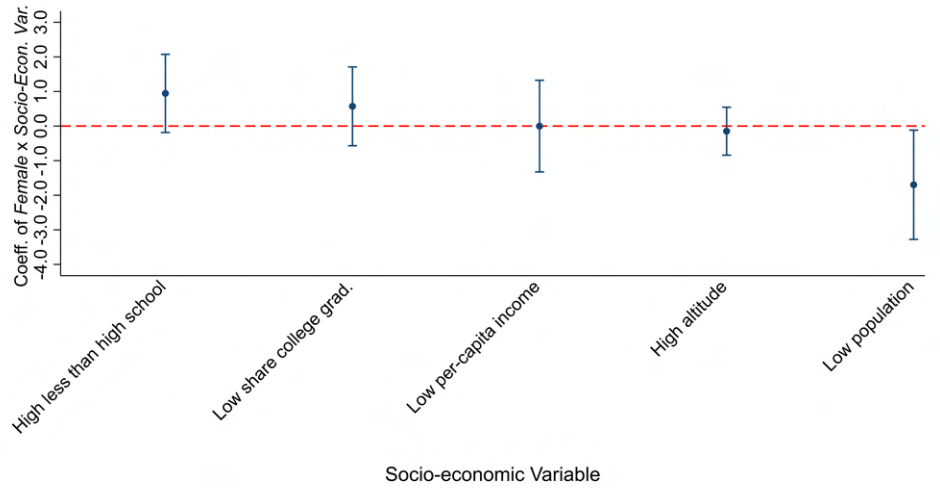
[48] We use data from the European Values Survey, focusing on waves including questions on gender roles. The attitude questions available in each wave are listed in Appendix Table B7.

from zero when using other socioeconomic characteristics in the town of origin not directly related to gender roles.

Figure 8: Bill sponsorship and other birth town variables



(A) Alternative cultural proxies



(B) Socioeconomic variables

Notes: This figure displays the estimated β_3 coefficients from counterparts of model 3, where a politician's number of sponsored gender-related bills is separately regressed on a female dummy interacted with a dummy for being born in a municipality ranking within the top tercile of the town-level characteristic indicated on the x-axis (instead of the default $HighGNI$). Panel A considers alternative cultural proxies for measuring gender norms in politicians' birth towns. Panel B considers town-level socioeconomic variables. All regressions include individual controls and birth town controls interacted with the *female* dummy, along with district-by-legislature and party-by-legislature fixed effects. Estimates are plotted alongside 95% confidence intervals. Standard errors are clustered at the birth town level.

Hence, our main findings can be replicated using alternative cultural proxies. Reassuringly, instead, they do not emerge when using other town-level socioeconomic variables that, while correlated with the *GNI* (see Section 4.4), do not directly capture attitudes towards gender.

Town-level confounders. As already discussed, it is particularly crucial for our identification

to control for other town-level characteristics. Since we are not able to randomize town-level gender norms, these are correlated with other municipal-level characteristics (see Section 4.4), which might also impact the legislative activity of politicians. For this reason, in our main analysis we already include the main town-level controls, interacted with the $female$ dummy (see Table 2). Additionally, the placebo results just presented further confirm that our findings are unlikely to be explained by differences in other municipal-level characteristics.

In Appendix Table B11, we re-estimate our main specification, including legislators' characteristics, and either party-by-legislature (odd-numbered columns) and district-by-legislature (even-numbered columns) fixed effects. We then add the interactions between the $female$ dummy and one birth town characteristic at a time. Specifically, we consider a capital city indicator (Columns 1-2), population (Columns 3-4), per-capita income (Column 5-6), the share of individuals without a high school diploma (Columns 7-8), and the share of college graduates (Columns 9-10). We can see that our coefficient of interest, β_3, is fairly robust to the inclusion of the $female$ dummy interacted with any of the considered municipal characteristics, again reassuring us that our results are not driven by confounding factors.

Clustering. In our main analysis, standard errors are clustered at the birth town level to address the potential correlation in errors terms across politicians from the same town. Given that many legislators serve multiple terms, we explore alternative clustering methods, including clustering at the legislator level and two-way clustering by birth town and legislator. Additionally, we investigate clustering standard errors at the electoral district level. In Appendix Table B12, we replicate estimates from our preferred specifications in Table 2 (last three columns) and report our main coefficient of interest along with the corresponding standard errors and p-values under these different clustering assumptions. While we observe a slight increase in p-values, particularly when clustering at the district level, these changes do not substantially alter the statistical significance of our estimates.

5.1.4 Supplementary evidence on voting

As highlighted in our discussion of the legislative activity in the Italian Parliament (see Section 2), bill sponsorship is our main outcome of interest for two main reasons. First, unlike in the U.S., only a small subset of parliamentary bills are subject to a roll-call vote on every bill, as many are resolved within committees. Second, the strong party discipline in the Italian parliament substantially limits legislators' voting autonomy, except for contested and highly debated votes. As shown in Appendix Figure B22 (Panel A), party discipline on votes cast—measured by the share of legislators voting according to their party line—is consistently over 80%, even after accounting for abstentions.[49] Party discipline is evident independently on the vote type, namely for both final passage votes and votes on individual articles, as seen in Panel A. It is also equally strong within the left, center, and right coalitions, as seen in Panel B. Unsurprisingly, non-attendance reveals a lower adherence to party discipline, suggesting that legislators exercise more freedom in

[49] We determine the party line by the majority vote within each party for each vote.

attendance choices than in vote choices.[50] In the analysis of voting behavior detailed below, we interpret votes against, abstention, and non-attendance as a lack of explicit support for the bill, thus classifying these behaviors as non-supportive choices.

In what follows, we supplement our bill sponsorship findings using roll-call votes on gender-related bills, including both final passage votes and votes on individual articles.[51] As mentioned earlier, our focus is on contested votes—those where the margin is sufficiently small. In particular, we show that the results are robust to considering margins of up to 15, 20, 25, and 30 percentage points. This allows us to exclude unanimous or near-unanimous decisions, ensuring that we consider only votes where the legislator's incentive of expressing her true policy preference, eventually against the party line, is sufficiently high.

To assess the impact of gender norms on legislators' voting behavior concerning gender-related bills, we estimate versions of the following model:

$$\begin{aligned} Y_{i,j,k,b} &= \beta_0 + \beta_1 \cdot female_i + \beta_2 \cdot HighGNI_j + \beta_3 \cdot female_i \cdot HighGNI_j + \\ &+ \mathbf{X}_i'\boldsymbol{\gamma} + female_i \times \mathbf{W}_j'\boldsymbol{\delta} + \lambda_k + \nu_b + \varepsilon_{i,j,k,b} \end{aligned} \tag{4}$$

where i indexes the legislator, j her hometown, k the electoral district (or the party coalition), and b the bill. The dependent variable, $Y_{i,j,k,b}$, is an indicator taking the value of 1 for expressing a pro-gender vote, and 0 otherwise.[52] To this end, we re-code the dependent variable such that the value of 1 indicates a vote in favor of pro-gender bills or a vote against gender-ambiguous bills. We also present the results for pro-gender and gender-ambiguous bills separately for better clarity. $HighGNI_j$ is an indicator for legislators born in towns with conservative gender norms, specifically in the top tercile of our *GNI*. Similarly to the analysis on bills, our main specification includes individual characteristics, $\mathbf{X}_i$, municipal-level controls, $\mathbf{W}_j$, interacted with the *female* dummy, and fixed effects for parties/electoral districts, λ_k. Unlike with bills, this analysis is at the politician-by-bill level, thus allowing us to include also bill fixed effects, ν_b. Robust standard errors are clustered at the birth town level.

Appendix Figure B23 presents the estimated impact of gender norms on the voting behavior of female legislators regarding gender-related legislation, as captured by the coefficient β_3 from model 4. These estimates consider different sets of contested votes—namely, those passing by margins of up to 15, 20, 25, and 30 percentage points. The figure shows that female legislators from gender-conservative towns—those in the top tercile of the *GNI* distribution—are less likely to vote in favor of pro-gender bills (Panel A) and more likely to vote for bills with ambiguous implications for gender equality (Panel B), as compared to their progressive counterparts. Consistently, when

[50] Correspondingly, abstention rates are relatively high in Italy. For example, in the XVIII legislature—the most recent in our study—legislators attended around 70% of votes, or 80% when considering absences due to official missions (see https://www.camera.it/leg18/357).

[51] Similar to our approach with amendments in the bill analysis, we do not consider votes on amendments to gender-related bills to avoid misinterpretation. For example, an amendment could either strengthen or weaken a bill's provisions, making a legislator's vote for or against it difficult to categorize.

[52] Abstentions and non-attendances are thus coded as 0, while legislators absent on official missions are excluded from the analysis.

pooling votes on all bills, female legislators from conservative towns are less likely to cast pro-gender votes (Panel C). Specifically, female legislators from conservative towns are approximately 15 percentage points less likely to vote for gender equality measures. The robustness of these findings is further supported by Appendix Table B13, which confirms the results across different model specifications, considering contested votes with margins of up to 20 percentage points. The inclusion of fixed effects does not significantly change these estimates. The results hold across different sets of contested votes, when considering votes that pass by up to 30 percentage points margin. This is consistent with our observation that legislators are unlikely to oppose the party line on non-contested bills, due to the high personal cost of dissent compared to the negligible impact of their vote.

In sum, despite the complexity of analyzing voting patterns in parliamentary systems like the Italian one, the evidence suggests that gender norms not only drive legislative engagement on gender issues but also influence the likelihood of passing pro-equality legislation, affecting both the initiative and eventual policy outcomes.

5.2 Gender norms and bill sponsorship on non-gender issues

Having documented the impact of gender norms on bill sponsorship for gender-related issues and supplemented these findings with suggestive evidence from voting, we now turn our attention to investigate whether gender norms similarly impact legislative activity in other bill topics. While gender norms distinctly shape issues directly tied to gender, their influence should not be as systematic across non-gender topics. Indeed, municipal-level gender attitudes might not consistently align with attitudes over other dimensions. Consequently, we hypothesize that the impact of gender norms on legislative activity is specific to gender-related issues, and should not extend to a broader range of policy areas.

To analyze lawmaking across different policy areas, we estimate model 3 using different dependent variables representing bill sponsorship on various topics. In particular, we first focus on five topics where women demonstrate significant involvement (see Figure 7). Results are presented in Table 4. We report estimates for bills on civil rights (Columns 1-2), labor (Columns 3-4), family (Columns 5-6), education (Columns 7-8), and health (Column 9-10) issues. For each dependent variable, odd-numbered columns display estimates including only the interaction between the $female$ and $HighGNI_j$ dummies, along with the two dummies alone. Even-numbered columns add politicians' individual characteristics, birth town controls interacted with the $female$ dummy, and district-by-legislature fixed effects. Results are robust to using party-by-legislature fixed effects instead (see Appendix Table B14).

In line with Figure 7, females are significantly more active than men across all of these topics (with the $female$ coefficient always significant at 1% level), and especially on civil rights (Column 1) and family issues (Column 5), where the $female$ coefficients are 2.041 and 2.050, respectively. These estimates correspond to about 55% of the average number of bills sponsored in the respective topics.

Turning to our main coefficient of interest—the interaction between being female and originating from a gender-conservative town—we find contrasting patterns compared to gender-related bills. The interaction term is negative in the case of civil rights, labor, and family issues, yet its point estimate is never statistically significant (Columns 1, 3, and 5), even after using the full set of controls and fixed effects (Columns 2, 4, and 6). Conversely, female legislators from conservative towns sponsor more bills related to education and health issues (Columns 7 and 9), but these coefficients are noisily estimated and once again not significantly different from zero. Additionally, in the case of health issues, the effect turns negative when all covariates are included (Column 10). Furthermore, the coefficient on the $HighGNI$ dummy alone is never consistently different from zero, suggesting that there is no significant effect of gender norms on male politician's bill sponsorship across any of the considered topics.

Overall, the absence of any significant effect of gender norms on female sponsorship in other topics not related to gender issues, nor on male politicians' bills sponsorship, bolsters our confidence that the *GNI* is capturing attitudes specifically related to women's roles, rather than broader social norms in the politician's municipality of birth. Indeed, if the *GNI* were simply a proxy for other dimensions of social norms, we would expect to see significant effects in other policy issues and for male politicians as well.

To further reinforce the finding that gender norms predominantly affect the participation of female legislators in gender-related matters, we estimate model 3 with the full set of covariates and fixed effects, separately for each topic, treating bill sponsorship on that topic as the dependent variable. We standardize the coefficients on the interaction term of interest so that we can compare their magnitudes across regressions.

Figure 9 graphs the estimated β_3 coefficients from separate regressions for each bill topic, ranked by coefficient magnitude. We can see that the estimate of the interaction between being female and originating from a conservative municipality is largest in magnitude for bill sponsorship on women's issues (red diamond in the graph). Conversely, the estimates for other topics (in blue), are all relatively smaller in magnitude and never statistically different from zero, even at the 10% level. Furthermore, while the ranking of these other topics changes with varying definitions of $HighGNI$—as defined based on the top thirty or fifty percent of the *GNI* distribution—, the interaction term for the women's topic consistently exhibits the largest magnitude (see Appendix Figure B24). This further confirms that gender norms distinctly shape female legislators' activity on gender issues, setting them apart from other policy domains.

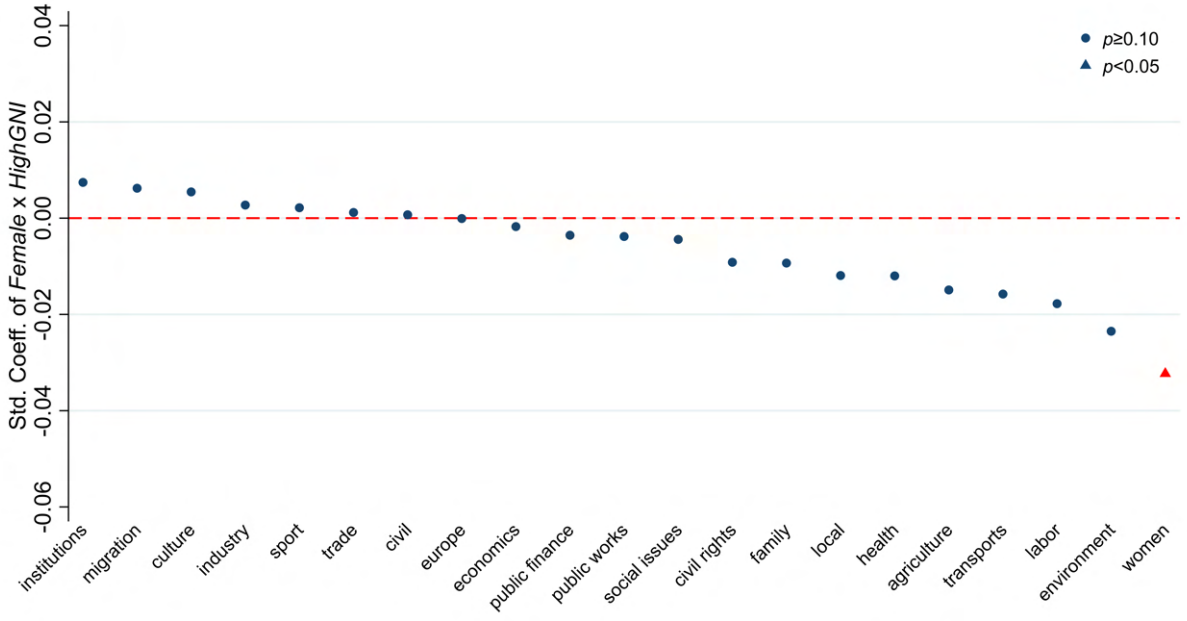
Finally, while the (negative) impact of gender norms on gender-related bill sponsorship consistently emerges regardless of how we measure these norms (see Section 5.1.3), the same is not true for bills on non-gender topics. While we have just seen that the *GNI* never identifies an effect, the proxies sometimes lead to conflicting conclusions. Appendix Figure B25 illustrates the estimated interaction term of interest from separate regressions for each bill topic and gender norms measure (the *GNI* or any of the considered proxies). Significant estimates at the 5% confidence level are highlighted in black, while non-significant estimates are shown in light gray. Notably, the *GNI* exclusively identifies an impact on gender-related bills, whereas some proxies suggest a norms

Table 4: Gender norms and bill sponsorship on non-gender topics

Dep. Var.:	*Number of bills sponsored on considered topic*									
	Civil rights		Labor		Family		Education		Health	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Female	2.041***	1.640	1.642***	5.906**	2.050***	2.788**	1.075***	0.095	2.450***	4.895**
	(0.190)	(1.134)	(0.386)	(2.704)	(0.156)	(1.087)	(0.283)	(1.154)	(0.313)	(2.019)
Female × *HighGNI*	-0.212	-0.258	-0.632	-0.996	-0.118	-0.201	0.131	0.498	0.093	-0.536
	(0.292)	(0.246)	(0.699)	(0.664)	(0.252)	(0.295)	(0.437)	(0.439)	(0.504)	(0.490)
HighGNI	0.111	0.087	0.343*	-0.073	0.128	0.080	0.532***	-0.249	0.465***	0.200
	(0.110)	(0.120)	(0.202)	(0.257)	(0.096)	(0.114)	(0.135)	(0.229)	(0.161)	(0.166)
Age		0.012***		0.004		0.014***		0.001		0.031***
		(0.004)		(0.011)		(0.004)		(0.006)		(0.006)
College degree		-1.222		-8.820***		-0.974		-0.064		-11.068
		(1.883)		(2.050)		(1.796)		(0.649)		(9.404)
Freshman		-0.083		-0.367*		-0.061		0.202*		-0.262*
		(0.085)		(0.207)		(0.082)		(0.115)		(0.140)
Tenure		0.021		0.064		0.008		0.085**		-0.129***
		(0.022)		(0.067)		(0.024)		(0.039)		(0.045)
Centrist coalition		0.268**		-0.061		-0.256***		1.821***		0.415**
		(0.119)		(0.264)		(0.093)		(0.169)		(0.170)
Right coalition		-1.187***		-0.973***		-0.087		1.605***		-0.106
		(0.120)		(0.240)		(0.095)		(0.180)		(0.182)
Individual Controls		Yes		Yes		Yes		Yes		Yes
Female × Birth town controls		Yes		Yes		Yes		Yes		
District-by-legislature fixed effect		Yes		Yes		Yes		Yes		Yes
Observations	5,635	5,482	5,635	5,482	5,635	5,482	5,635	5,482	5,635	5,482
Clusters	1,220	1,168	1,220	1,168	1,220	1,168	1,220	1,168	1,220	1,168
Adj. R-squared	0.50	0.63	0.71	0.76	0.59	0.66	0.52	0.59	0.69	0.74
Mean Outcome	3.840	3.854	11.444	11.449	3.681	3.682	4.598	4.605	7.820	7.817

Notes: This table reports the results of OLS regressions where the dependent variable measures a politician's number of bills sponsored on a specific topic, as indicated in each respective column. *Female* is a dummy equal to 1 if the politician is a woman. *HighGNI* is a dummy equal to 1 if the politician is born in a gender-conservative municipality, namely in a municipality in the top decile in terms of conservativeness of gender norms, as measured by the birth town GNI. Individual controls include the politician's age and parliamentary tenure (in terms of legislative terms), as well as indicators for freshman status, education level, previous occupation, and affiliation with left, center or right political coalitions. Birth town controls are all interacted with the *female* dummy and include the municipality's population, per-capita income, the share of college graduates, and a dummy for province capitals. All regressions also control for the total number of bills sponsored. The sample includes all members of the Italian House of Representative elected between 1987 and 2022, corresponding to Legislatures X to XVIII. Robust standard errors clustered at the birth town level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Figure 9: Bill sponsorship and gender norms—Heterogeneity by bill topic



Notes: This figure presents estimated β_3 coefficients from counterparts of model 3. Each coefficient results from a separate regression, where the dependent variable is the number of bills a politician sponsored on a specific topic (as indicated on the x-axis). Coefficient estimates are first standardized and then ranked by their magnitude. Triangles represent coefficient estimates that are statistically significant at the 5% level ($p < 0.05$), while circles represent coefficient estimates that are not statistically significant at conventional levels ($p > 0.1$). All regressions include individual controls, birth town controls interacted with the *female* dummy, the number of sponsored bills, along with district-by-legislature and party-by-legislature fixed effects. Standard errors are clustered at the birth town level.

effect for non-gender topics, and others do not. This confirms the *GNI*'s superiority in capturing gender-related norms and underscores the robustness of the effect on gender-related bills, which consistently emerges across different proxies, despite their potentially lower precision.

To sum up, our results suggest that gender norms in the municipality of birth have a significant impact on female legislators' commitment to women's issues, as measured by sponsorship of bills on gender issues. In fact, we find that women sponsor relatively more gender-related bills as compared to men, but this difference shrinks for women born in conservative municipalities. By contrast, gender norms do not seem to affect the degree to which men are active on gender issues, nor the degree to which females sponsor bills focused on other policy areas, such as civil rights, family, labor, or health issues.

6 Alternative channels

Our results highlight how gender norms influence the substantive representation of women's issues, demonstrating their impact on the extent to which gender-related topics are represented in the legislative process. Because this effect is identified from within-district and within-party variation, the main explanation is that the prevailing norms in a politician's hometown shape their

interests and identity. This, in turn, carries over to the types of policies they sponsor once elected.

At the same time, there might be alternative explanations, such as gender norms impacting who gets elected, possibly affecting both the proportion of women entering politics and the characteristics of those who do. In this section, we provide supplementary evidence that these alternative explanations are unlikely to fully explain the observed differences in women's issues engagement among female politicians from varying cultural contexts.

6.1 Constituency preferences

First of all, let us reinforce our argument that our findings are unlikely to be driven by the influence of constituency demands. The stability of our estimates in our main analysis, even with the inclusion of electoral district fixed effects, already suggests that gender norms influence female legislators' engagement with women's issues regardless of voter preferences and ideology. We further support this interpretation with three extra pieces of evidence.

First, we compute the electoral constituency-level gender norm by calculating the population-weighted average *GNI* of municipalities within each electoral district. Instead of constituency fixed effects, we include this calculated gender norm in our estimation, along with the birth town *GNI*. While the latter index can be thought of as representing the legislator's own gender attitudes—reflecting her interests and preferences—, the former represents the constituency's gender attitudes—capturing the interests and preferences of her constituents. To facilitate a comparison of their relative explanatory power, we include the continuous indices, standardized to have mean zero and standard deviation one.

The results, presented in Table 5, where both the legislator's own *GNI* and the constituency *GNI* are included, confirm our main interpretation. While the coefficient on the interaction between the $female$ dummy and the birth town *GNI* remains consistently negative and statistically significant, the impact of the constituency-level *GNI* is also negative, but roughly half in magnitude and never significant at conventional levels. This further limits our concerns that voter preferences and representation are driving our findings.

Second, our main effect remains stable even when we exclude politicians born in towns that constitute a relatively large portion of their electoral districts. If our estimates were driven by voter preferences, we would expect larger effects when a politician's birth town closely aligns with their district. In Appendix Figure B26, we show that the effect changes little, even for politicians born in towns making up as little as 5% of their constituencies. This confirms that the effect persists even among politicians from towns considerably smaller than their districts.

Finally, we demonstrate that the main effect remains robust to the exclusion of politicians representing the most conservative districts. Results are displayed in Appendix Table B15. Even when the main effect is identified through within-district variation—hence from the comparison of conservative *vs.* progressive politicians elected in the same district—the exclusion of districts where the constituency is extremely conservative leaves our estimates largely unchanged, or even larger in magnitude.

Table 5: Gender norms and bill sponsorship—Birth town vs. constituency level gender norms

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.:	*Number of bills sponsored on gender issues*					
Female	4.107***	6.211***	4.168***	4.363**	4.134***	6.302***
	(0.190)	(1.729)	(0.197)	(1.815)	(0.191)	(1.769)
Female × *GNI* Std.	-0.486**	-0.656***			-0.508*	-0.800***
	(0.191)	(0.219)			(0.286)	(0.310)
GNI Std.	0.057	0.034			0.045	0.038
	(0.046)	(0.049)			(0.063)	(0.067)
Female × Constituency *GNI* Std.			-0.232	-0.152	0.075	0.244
			(0.200)	(0.222)	(0.291)	(0.300)
Constituency *GNI* Std.			0.041	0.011	0.010	-0.014
			(0.041)	(0.042)	(0.057)	(0.058)
Individual Controls		Yes		Yes		Yes
Female × Birth town controls		Yes		Yes		Yes
Legislature fixed effect		Yes		Yes		Yes
Observations	5,635	5,498	5,593	5,456	5,593	5,456
Clusters	1,220	1,170	1,212	1,162	1,212	1,162
Adj. R-squared	0.18	0.20	0.18	0.20	0.18	0.21
Mean Outcome	3.140	3.148	3.116	3.123	3.116	3.123

Notes: This table reports the results of OLS regressions where the dependent variable measures the number of bills sponsored on gender-related issues by a politician in a given legislature. *Female* is a dummy equal to 1 if the politician is a woman. *GNI* Std. is the *GNI* in the politician's birth town, standardized to have mean zero and standard deviation one. Constituency *GNI* Std. is the *GNI* in the politician's district of election, standardized to have mean zero and standard deviation one. It is computed as the population-weighted average of the *GNI* in the municipalities within the district of election. Individual controls include the politician's age and parliamentary tenure (in terms of legislative terms), as well as indicators for freshman status, education level, previous occupation, and affiliation with left, center or right political coalitions. Birth town controls are all interacted with the *female* dummy and include the municipality's population, per-capita income, the share of college graduates, and a dummy for province capitals. The sample includes all members of the Italian House of Representative elected between 1987 and 2022, corresponding to Legislatures X to XVIII. Robust standard errors clustered at the birth town level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

6.2 Selection

The main alternative explanation considers the impact of gender norms on political selection. Specifically, gender norms may affect both the proportion of women elected and their characteristics. To the extent that these differences affect a politician's engagement with women's issues, we would wrongly attribute differences in legislative behavior to gender attitudes rather than to these characteristics.

Female representation. As previously mentioned, gender norms likely affect the process of selection in office, particularly affecting the share of women running and winning elections (Fox and Lawless, 2011; Le Barbanchon and Sauvagnat, 2021; Cella and Manzoni, 2023). To gain initial insights into the quantitative importance of these differences in selection in our context, we examine the share of female politicians across various points of the distribution of gender norms in their respective municipalities of birth.

Appendix Figure B27 illustrates the share of female members of the Parliament at each decile of

the hometown *GNI* distribution. Unsurprisingly, female representatives are more likely to come from municipalities with more progressive gender norms, in comparison to their male counterparts. Notably, when considering politicians born in municipalities at the lower end of the nation-level norms distribution (i.e., more progressive towns), females account for about 20% of the representatives. Conversely, when considering towns at the higher deciles of the distribution (more conservative towns), only around 13%-15% of representatives are females. Appendix Figure B28 further highlights this pattern: while the cumulative distribution of the *GNI* for legislators mirrors that of the Italian population (Panel A), within the sample of legislators, female legislators tend to originate from more progressive cities with lower *GNI* values compared to their male counterparts (Panel B). This aligns with prior research demonstrating that unfavorable voter attitudes towards female candidates reduce their electoral success, in that female candidates get fewer votes in municipalities characterized by greater gender bias (Le Barbanchon and Sauvagnat, 2021; Cella and Manzoni, 2023).

We address this concern in two ways. First of all, we note that these differences seem relatively small and generally not significant at conventional levels. Indeed, while Figure B27 shows a decrease in the proportion of female politicians as we move towards more conservative areas, this trend is not consistently monotonic, as demonstrated by the similar female proportions observed particularly between the 4^{th} to 9^{th} deciles. Furthermore, our main results from Table 2 are robust to excluding politicians born in municipalities ranking in the 10^{th} decile of the *GNI* distribution, where the share of females appear to be significantly lower than in the bottom deciles. Results are displayed in Appendix Table B16 and remain essentially unchanged.

Second, Appendix Figure B29 suggests that the gender differences in representation are reduced within electoral districts and, especially, within regions of birth. When we regress the $female$ dummy on the birth town *GNI* only controlling for individual characteristics (Panel A), we find a coefficient of -0.028 ($p < 0.01$), which means that an increase of 1 standard deviation in our index (thus increasing the level of the municipality-of-birth conservativeness) decreases the likelihood that the politician is a female by 2.8 percentage points. However, when we add fixed effects for the electoral district (Panel B) and the region of birth (Panel C), the negative correlation between being born in a conservative town and being a female drops in magnitude. In particular, when we include birth region fixed effects, the coefficient is not statistically different from zero at conventional levels ($p = 0.6$). Therefore, we estimate alternative specifications including region of birth fixed effects, interacted with the party affiliation, electoral district, or legislative term. The results are displayed in Appendix Table B17 and remain fairly similar.

Overall, although our findings align with previous research indicating larger gender disparities in political representation in more conservative towns, these disparities alone are unlikely to be the sole driving factor behind our results on women's involvement in gender-related topics. First, the decay in the share of women as we move towards the upper end of the norms distribution is not drastic, nor monotonic, but rather more significant at the top. Reassuringly, our results hold even when excluding the most conservative top decile. Second, when considering only within-region-of-birth variation, the gender differences in representation significantly diminish, yet our

results remain robust.

Individual characteristics. Gender norms might not only affect the share of women running and winning elections, but also the characteristics of women doing so. For instance, women coming from more conservative towns may face challenges in terms of re-election, resulting in shorter average parliamentary tenures. Also, they may be more likely to align with right-wing political parties, or their expertise might be lower. To the extent that these characteristics affect a politician's engagement in women's issues, this would bias our estimates.

In Table 2 we observed that the main coefficient of interest remains robust to the inclusion of legislators' individual characteristics, such as their age, education, previous occupation, tenure, and party affiliation. This suggests that these characteristics are unlikely to be driving our findings regarding women's engagement in gender-related topics.

In what follows, we further examine the individual-level characteristics of elected female legislators to assess potential differences among those born in municipalities at different points of the *GNI* distribution. To this end, we regress each individual characteristic separately on indicators for being born in municipalities in the mid or top tercile of the *GNI* distribution.

Table 6 reveals that, with few exceptions, most individual-level characteristics do not systematically differ across these groups. First, there are no substantial differences in their educational background, nor in their previous occupation. There is little evidence that female legislators from high-*GNI* towns (thus more conservative) are more likely to hold a college degree than those from low-*GNI* towns, but the difference is significant only at the 10% level, and the difference with their mid-*GNI* peers is instead not statistically significant at conventional levels. As for their previous occupation, there is some evidence that high-*GNI* women are less likely to work as white-collars, but again the difference is statistically significant only at the 10% level and only as compared to their mid-*GNI* female peers. Additionally, as expected, women from high-*GNI* towns tend to have a lower parliamentary tenure and higher likelihood to be freshmen, but these differences are not statistically different from zero ($p > 0.10$).

Furthermore, we find no evidence of significant differences in party affiliation. Unlike male politicians from more conservative towns, who tend to exhibit a significantly higher likelihood of right-wing party affiliation and a lower likelihood of being leftist (see Appendix Table B18), no such significant sorting in party affiliation is observed for female politicians. This might be due to right-wing women in more conservative towns facing challenges in gaining voter support, or directly anticipating voter bias against female candidates and opting not to run for elections (Le Barbanchon and Sauvagnat, 2021; Cella and Manzoni, 2023). Alternatively, political parties might strategically choose not to put forward these women as candidates (Lippmann, 2021).

One exception exists. Women from conservative high-*GNI* towns are, on average, approximately two years younger than their more progressive female peers from mid- and low-*GNI* towns ($p < 0.10$ and $p < 0.05$, respectively). However, this age difference would, if anything, go against our results since younger women likely hold more progressive views than their older peers due to cohort effects.

To conclude, the (limited) differences in individual characteristics among female legislators

Table 6: Individual characteristics by *GNI* tercile—Female legislators

		Relative to low GNI:		
	All females (1)	Medium GNI (2)	High GNI (3)	Difference: (3)-(2) (4)
Age	45.228	0.210	-2.172**	-2.382*
	[10.031]	(1.058)	(1.037)	(1.220)
Freshman	0.608	-0.020	0.045	0.065
	[0.488]	(0.042)	(0.036)	(0.046)
Tenure	2.295	0.233	-0.121	-0.354
	[1.492]	(0.244)	(0.218)	(0.279)
Education level				
High school diploma	0.197	-0.064	-0.051	0.013
	[0.398]	(0.042)	(0.038)	(0.046)
College degree	0.712	0.050	0.070*	0.021
	[0.453]	(0.047)	(0.038)	(0.050)
Previous occupation				
Teacher/Professor	0.212	-0.011	-0.010	0.001
	[0.409]	(0.045)	(0.043)	(0.050)
Self-employed	0.112	0.011	-0.018	-0.029
	[0.315]	(0.040)	(0.031)	(0.045)
Lawyer	0.088	-0.015	0.036	0.051
	[0.284]	(0.029)	(0.027)	(0.032)
Journalist	0.070	-0.058**	-0.027	0.031
	[0.254]	(0.027)	(0.030)	(0.027)
White-collar worker	0.130	0.034	-0.032	-0.066*
	[0.337]	(0.040)	(0.032)	(0.038)
Bureaucrat	0.071	0.017	0.030	0.013
	[0.256]	(0.027)	(0.026)	(0.029)
Manager	0.026	-0.008	-0.008	-0.000
	[0.161]	(0.014)	(0.017)	(0.016)
Entrepreneur	0.065	-0.007	0.005	0.012
	[0.246]	(0.024)	(0.029)	(0.033)
Physician	0.045	0.025	-0.009	-0.034
	[0.208]	(0.029)	(0.018)	(0.028)
Professional politician	0.072	0.021	-0.002	-0.023
	[0.259]	(0.029)	(0.025)	(0.035)
Party affiliation				
Left-wing	0.496	0.081	0.003	-0.078
	[0.500]	(0.056)	(0.048)	(0.061)
Centrist	0.229	-0.038	0.028	0.066
	[0.421]	(0.046)	(0.040)	(0.044)
Right-wing	0.275	-0.043	-0.031	0.012
	[0.447]	(0.050)	(0.045)	(0.056)
p-value for joint significance of characteristics		0.680	0.236	0.132

Notes: This table compares individual characteristics of female legislators born in towns at different points of the *GNI* distribution. Column 1 reports the average value of the indicated characteristic for the sample of all female legislators, with the corresponding standard deviation in square brackets. Columns 2 and 3 report coefficients from a regression of the indicated characteristic on indicators for birth towns in the mid- and top-*GNI* terciles (the bottom tercile is the omitted category). Column 4 reports the difference between the coefficients in columns 2 and 3. The last row reports the *p*-value for the hypothesis that individual characteristics are jointly equal to zero. Regarding the legislators' previous occupation, we show the top ten most common occupations. Robust standard errors clustered at the birth town level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

from different contexts further indicate that selection is unlikely to drive our findings. Women from conservative contexts tend to be younger and show no significant inclination towards right-wing ideologies, thus suggesting that, if anything, our result emerges in spite of selection dynamics, rather than because of them.

6.3 Tenure

While no significant difference in legislators' time in office was observed, we examine more closely the impact of parliamentary tenure, aiming to further rule out its influence. Legislators' tenure might affect their behavior and their propensity to sponsor women's bills, due to factors such as increased experience, stronger networks, and better access to resources. On one hand, more senior legislators might be more likely to address women's issues due to their accumulated experience and heightened awareness of these matters. On the other hand, experienced legislators might have already established their policy priorities and networks earlier in their careers, making these legislators less sensitive to evolving societal norms or emerging policy areas.

To account for the potential influence of tenure, our main specification already controls for the number of terms they have served in Parliament and a freshman indicators, identifying those who are newly elected and are entering the Parliament for the first time. Additionally, we replicate our main findings on the restricted sample of freshman legislators. Due to their recent entry into office, they possess limited seniority and may not have had the time to accumulate the benefits of institutional experience and extensive networking. As such, any effect of gender norms on bill sponsorship observed among this subgroup is less likely to be confounded by seniority-related factors. The results are presented in Appendix Table B19 and they remain substantively unchanged. This suggests that the potential differences in seniority are unlikely to be driving our results.

6.4 Overall levels of activity

Another potential explanation driving our results is that female legislators from more conservative areas generically sponsor fewer bills than their more progressive counterparts. While female legislators sponsor an average of 85 bills per term, those from high-*GNI* towns sponsor 14 and 19 fewer bills compared to their counterparts from low-*GNI* and mid-*GNI* towns, respectively ($p < 0.05$). To account for differences in overall parliamentary activity among legislators, we re-estimate our main specification controlling for the number of sponsored bills in several ways.

Appendix Table B20 displays the estimates, including the full set of covariates, along with party-by-legislature or district-by-legislature fixed effects. Columns (1) and (2) control for the total number of bills sponsored by the politician. Columns (3) and (4) focus on bills unrelated to gender issues. In Columns (5) and (6), we include dummies grouping bills into intervals of 20 (0-20, 20-40, and so on). Columns (7) and (8) use dummies for each bills decile. Lastly, Columns (9) and (10) flexibly control for the number of bills, including linear, quadratic, cubic, and quartic terms. We can see that the main effect of interest slightly lower in magnitude, ranging between

-0.6 and -0.7. Yet, the estimate of the interaction term remains always stable across the different specifications and statistically significant at conventional levels. Hence, this suggests that the potential differences in overall levels of bill sponsorship are unlikely to fully drive our findings.

6.5 Place of election *vs.* place of birth

A related concern is that politicians might strategically select electoral districts to maximize their chances of winning. If politicians strategically choose districts aligning with their personal ideologies in dimensions that are correlated with gender norms, we might see, for instance, progressive legislators running in districts with higher demand for gender-related policies. In this case, we would wrongly attribute observed differences in bill sponsorship to birth town gender norms, while they might simply result from the chosen district's characteristics.

Reassuringly for us, the majority of politicians is elected in their birth districts. Overall, male politicians exhibit a slightly higher likelihood of being elected in their birth regions compared to their female counterparts, with 68% of males and 64% of females being elected in their electoral constituency of birth. As shown in Appendix Figure B30, this pattern holds across all regions. Apart from the Liguria region where only 40% of female politicians elected there were born in the same region, at least 60% of both male and female politicians tend to be elected in the regions where they were born.

Moreover, in Appendix Table B21, we find limited evidence that gender norms predict politicians' decisions to run for elections within or outside their birth districts. One might a priori expect that female politicians born in conservative areas would strategically run in more progressive districts, anticipating potential voter bias against female candidates. However, we find no substantial evidence that female politicians born in more conservative areas are significantly more likely to opt out of their own districts. Conversely, females (and also males) born in moderately and highly conservative areas (mid- and top-tercile of the *GNI* distribution) are more likely to be elected in their birth districts compared to their most progressive peers. Additionally, female legislators from mid- and top-*GNI* towns do not significantly differ in terms of their likelihood of being elected in their districts of birth.

Overall, although these observations suggest that the strategic behavior of politicians running outside their birth districts should not be a major concern, we undertake two additional tests to address this issue. First, we replicate our main findings by introducing a control variable indicating whether a politician has been elected in her birth district. Panel A of Appendix Table B22 demonstrates that our main estimates remain largely unaffected when accounting for this indicator variable. Second, in Panel B of the same table, we confirm that our main estimates remain fairly consistent in most specifications also when restricting our sample to politicians elected within their electoral constituency of birth.

6.6 Social pressure

The evidence presented so far suggests that factors related to political competition, representation, or other parliamentary incentives are unlikely to be driving our results. In fact, while exposure to sexist norms might reduce a politician's commitment to women's issues by shaping their preferences, interests, and forming their "identities", we must assess whether these shaped preferences truly reflect the politicians' inherent inclinations and intrinsic interests.[53] Alternatively, could these preferences be responsive reactions to the norms and social pressures prevailing in their respective environments? In what follows, we provide suggesting evidence that our results likely stem from differences in personal and societal values, rather than from differences in social sanctions and expectations.[54]

In the attempt to isolate the preference component, one possibility is to focus on politicians born in large municipalities. Large cities often exhibit greater diversity and a more complex array of individual attitudes, potentially diluting the impact of localized gender norms. Conversely, social networks in smaller and more homogeneous communities tend to be more closed and interconnected, allowing for stronger social sanctions and social control (Allcott et al., 2007; Buonanno and Vanin, 2017).

Therefore, we restrict the sample to legislators who were born in large municipalities with at least 100,000 inhabitants, which represent approximately 40% of the total sample. Appendix Table B23 presents our main results based on this restricted sample. We obtain an even more negative estimate, stable across specifications, and always statistically significant at least at the 5% level. Hence, this suggests that the relatively lower involvement of female legislators from conservative areas on women's issues cannot be solely attributed to the social pressures generated by living in small towns, where politicians might feel more influenced and closely scrutinized by their immediate social environments.

7 Conclusion

Leveraging Facebook's detailed information on the popularity of gender-related interests, we develop a new measure of gender attitudes at the municipal level within Italy. Our main contribution is to show how the granularity of the measure enables us to isolate the impact of cultural attitudes

[53] Starting from the seminal paper of Akerlof and Kranton (2000), the concept of identity—typically conceptualized in terms of preferences, with different identities caring about different things—has been imported in economics to study how it affects a variety of economic outcomes, such as female labor supply, the household division of labor, educational investments, and consumption choices (Bertrand, Kamenica and Pan, 2015; Bursztyn and Jensen, 2015; Atkin, Colson-Sihra and Shayo, 2021), sometimes emphasizing the endogeneity of identity choices, in response to ingroup bias and conformity to group norms (see Shayo, 2020, for an excellent review). More generally, recent theoretical and empirical contributions study how preferences are endogenous to social, cultural and family influences (Bowles, 1998; Fernández, Fogli and Olivetti, 2004; Guiso, Sapienza and Zingales, 2006; Washington, 2008; Depetris-Chauvin, Durante and Campante, 2020; Bernheim et al., 2021).

[54] Benabou and Tirole (2011) provide a unifying framework to examine how both individuals' decisions and public policies are shaped by personal and societal preferences ("values"), material or other explicit incentives ("laws") and social sanctions or rewards ("norms").

from economic and institutional factors, exploiting the (surprisingly marked) within-country variation in attitudes that is typically inaccessible through traditional survey data. We then use this measure to investigate the impact of gender norms on legislative activities within the Italian Parliament, with a specific focus on women's issues.

We find that the gender attitudes in a politician's hometown significantly influence their commitment to women's issues during their tenure in office. Notably, while female legislators are in general more likely to sponsor bills on women's issues than men, those who are born in gender-conservative towns tend to sponsor significantly fewer gender-related bills compared to their more progressive female counterparts. This finding is further supported by evidence showing that traditional gender norms also decrease the likelihood of female legislators voting in favor of pro-equality legislation. We provide evidence that our results are unlikely to be driven by constituency preferences, party constraints, other town-level confounders, differences in selection in office, overall parliamentary activity or tenure. Therefore, we argue that persistent social norms shape legislators' own values and identities, which subsequently influence the types of policies that they sponsor once elected. This sheds light on the limited support for women's issues, even among women in political spheres, possibly slowing down or impeding reform efforts.

To conclude, our work emphasizes the complexity of gender equality beyond the numerical representation of women in political spheres. To assess progress, it is crucial to examine the determinants of women's *substantive* representation, focusing on the extent to which women's rights and issues are advocated for. In today's world, anti-women's rights movements continue to exert significant influence, together with those opposing abortion, same-sex marriage, and transgender rights (Goldin, 2023). In this perspective, we highlight the pivotal role of persistent social norms in shaping women's lawmaking activity on these topics. While we confirm the well-known fact that gender-relevant matters are typically addressed by women, our study highlights that it is predominantly a subset of women—those fortunate enough to be born in progressive contexts—who actively engage with these matters. This can have far-reaching consequences for the polarization of political discourse, specifically concerning gender issues, and specifically among women, beyond their political ideologies or the constituencies they represent.

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A Appendix

A.1 Defining interests

In what follows, we describe how we obtain the list of interests with a gender-specific content. In particular, we use two different sources.

Family and Relationships category from Facebook. Facebook directly classifies some of the interests that can be targeted by advertisers into nine categories. Table A1 shows the complete and up-to-date list of all Facebook interest categories and subcategories that can be targeted with ads.

Table A1: Facebook interest categories list

Category	Subcategories
Business and Industry	Advertising, Agriculture, Architecture, Aviation, Banking, Business, Construction, Design, Economics, Engineering, Entrepreneurship, Health care, Higher education, Management, Marketing, Nursing, Online, Personal finance, Real estate, Retail, Sales, Science, Small business
Entertainment	Games, Live events, Movies, Music, Reading, TV
Family and Relationships	Dating, Family, Fatherhood, Friendship, Marriage, Motherhood, Parenting, Weddings
Fitness and Wellness	Bodybuilding, Meditation, Physical exercise, Physical fitness, Running, Weight training, Yoga
Food and Drink	Alcoholic beverages, Beverages, Cooking, Cuisine, Food, Restaurants
Hobbies and Activities	Arts and music, Current events, Home and garden, Pets, Politics and social issues, Travel, Vehicles
Shopping and Fashion	Beauty, Clothing, Fashion accessories, Shopping, Toys
Sports and Outdoors	Outdoor recreation, Sports
Technology	Computers, Consumer electronics

Notes: This table displays the complete and up-to-date list of all Facebook interest categories and subcategories that can be targeted by advertisers. Source: https://interestexplorer.io/facebook-interests-list/, last accessed on October 27 2021.

Abstracts. We then select words with a gender-related content from the abstracts of papers published in journals that oftentimes publish research in the field of Gender Economics. In particular, we download the abstracts of all papers published in the *Review of Economics of the Household*,

as well as of all papers published from 2014 to 2021 in the *Journal of Public Economics*. After removing duplicate words, we manually identify which of these words have a gender-related content, among those whose frequency is at least 10.

After getting the two lists of gender-related words and removing the duplicate words, one can use the detail targeting section in the Facebook Ads Manager interface to get other related interests that can be targeted. In fact, when typing any string query in the Facebook Ads Manager, it provides a list of suggestions of (targetable) related interests. However, the number of interest suggestions that Facebook shows to advertisers is limited to a shortlist of only 25 interests. These 25 interest suggestions are called "public interests". Currently, these are well over 6 million.

On top of these, however, there are other interests that can be targeted but that are not included in Facebook's shortlists (the so-called "hidden interests"). These interests are made available solely through Facebook's Marketing API, so that software developers can build software for functions that are not included in Facebook own platform. While they are not suggested by the Ads Manager, they can be nonetheless targeted, just like any other interest.

In order to access both the public and hidden interests, we use the InterestExplorer software.[55] It is a Facebook interest targeting tool that uses Facebook's API to list all interests that can be targeted in any niche, together with the corresponding worldwide Facebook audience size.

Specifically, we type each of our gender-related interests in the InterestExplorer interface. For each of our interests, we obtain a list of related and targetable interests, together with the corresponding audience size worldwide. We then merge all the lists and drop the duplicate words. Afterwards, we query Facebook's API to get the corresponding audience size for Italy. We keep the interests with an audience size between 10k and 30 million users. In fact, we do not use interests that are either 'too narrow' or 'too generic'.[56] This yields a list of 60 unique interests.

[55] The software is available at the following link: https://interestexplorer.io/.

[56] We exclude interests that are very generic in order to avoid an oversized effect of these large interests (see also Cuevas et al., 2021).

A.2 Details on bills' classification process

The procedure employed for topic classification of bills is as follows:

1. We create the list of topics by utilizing the official structure of permanent government ministries and parliamentary committees that were active during the period from 1987 to 2022. This process identifies 26 non-mutually exclusive topics and 4 overarching subcategories.

2. We remove all common stop words and include both singular and plural forms, as well as feminine and masculine versions of the remaining words found in the titles of the bills. We set a threshold of at least 6 occurrences in the titles to determine which words are part of the classification process. This results in a representative sample of approximately 5,000 words.

3. We manually categorize the words into the 26 main topics and 4 subcategories by assigning each word to up to two topics and/or two subcategories.

4. We assign each bill to one or more of the 26 non-mutually exclusive categories based on the presence of keywords from the corresponding topic dictionary in the bill's title. The underlying assumption is that if a title contains any of the keywords, the bill is classified as belonging to the respective category.

5. To ensure accurate classification, we employ bigrams and trigrams as auxiliary tools to control for false matches. This helps us verify the context and meaning of words within the bill titles, reducing potential measurement errors.

6. To determine whether the resulting 1,100 women-related bills are in favor of or against gender equality, we conduct an additional manual classification by carefully examining the content and context of each bill's title.

Table A2: Details on topics

Topic	Thematic areas	Top 10 keywords	Bigrams and Trigrams
Agriculture	agriculture, cultivation, livestock farming, fishing, hunting, forest, food, nutrition	agricolture, agricultural, farmers, food (sing.), fishing, cultivation, farming, food (pl.), affection, dogs	organic farming, rural farmhouses, organic label, agricultural production, rural development
Civil	public administration, bureaucracy, public employment, public services, administrative law	administration, positions, public exams, assignments, position, severance pay, candidatures, rankings, essential, officials	local administrators, public digital registry, public competition, digital signature, public office
Civil rights	human rights, equality, freedom, discrimination, diversity, tolerance, egalitarianism, emancipation	citizenship, gender, exploitation, amnesty, dignity, pregnancy, discrimination, medically, descendants, discrimination (pl.)	abolition of the death penalty, political asylum, right to vote, protection of rights, equal opportunities
Culture	art, museums, performances, cinema, theater, music, literature, cultural heritage	cultural (pl.), cultural (sing.), historical, tourism, culture, artistic, celebration, museum, historians, entertainment	cultural heritage, Mediterranean diet, copyright, small bookstores, valorization of cities
Economics	economy, finance, banks, markets, investments, monetary policy, business	insurance, credit, savings, financial (pl. m.), banking, insurances, mortgages, credit, revaluation, financial (pl. f.)	debt extinguishment, capital gains, facilitated credit granting, economic-social emergency, financial intermediation
Education	primary school, middle school, high school, teaching, training, learning, study	schools, school, university, education, academic, scholastic (pl. f.), scholastic (sing. m.), teachers, secondary, professors	compulsory education, school libraries, financial education, higher technical education, graduates in natural sciences
Environment	environment, nature, sustainability, energy, waste, pollution, fauna, flora	animals, environmental, safeguard, environment, waste, water, pollution, environmental (pl.), reclamation, energy	waste separation/recycling, natural disasters, landslides, forest heritage, Mediterranean scrub
Europe	European Union, European integration, European cooperation	European (sing. f.), European (pl. m.), Europe, EEC, community (pl. m.), European (pl. f.), Brussels, European (pl. m.), community (sing. m.), convention	European Community, European directives

Table A2: Details on topics

Topic	Thematic areas	Top 10 keywords	Bigrams and Trigrams
Family	family, parents, children, maternity, paternity, leave, assistance, custody, adoption	children, family, maternity, childhood, families, marriage, spouses, parents, paternity, relatives	integrative adoption, custody of minors, low birth rate, family allowances, family support
Health	healthcare, well-being, disease, prevention, treatment, medications, medical research	healthcare, sanitary (pl. f.), sanitary (sing. f.), diseases, health, asbestos, sanitary (pl. m.), affected, illness, disease	female genital mutilation, human genome, music therapy, blood donation, national health service (NHS)
Industry	industry, manufacturing, production, innovation, technology, energetic policy, craftsmanship	businesses, enterprise, industrial (sing.), industrial (pl.), energy, industry, craftsmanship, gas, electrical, artisanal (pl. f.)	ecological footprint of businesses, relocation of production activities, heat generators, technological innovation, relocation of production activities
Institutions	government, parliament, electoral system, constitutions, reforms	government, election, constitutional, deputies, parliament, positions, parties, elections, electoral, vote	parliamentary oversight, normative sources, referendum laws, mandate constraint, function of the chambers
International	diplomatic relations, international cooperation, international law, agreements, international organizations, conventions	abroad, international (sing.), international (pl.), emigration, consular (pl.), diplomatic (pl. f.), border workers, Brussels, emigrants, cross-border (sing. f.)	foreign diplomats, Ministry of Foreign Affairs, United Nations, Kosovo crisis, diplomatic service
Justice	law, crime, judiciary power, legal profession, lawyer, criminal law, civil law	criminal, appeal, magistrates, court, citizenship, justice, crimes, judicial, judiciary, detached	house arrest, domestic violence, alimony obligation, civil procedure, compensation for damages
Labor	work, job, employment, trade unions, working conditions, social security, wages, workers' rights	work, workers, employees, allowances, register/bar, social security (pl. m.), pensions, pension-related (pl.), placement, pension	retirement treatment, professional associations, social security contribution, job placement lists, unemployed youth

Table A2: Details on topics

Topic	Thematic areas	Top 10 keywords	Bigrams and Trigrams
Local	territory, region, province, municipality, local government, local autonomy	municipalities, municipal (pl.), municipal (sing.), territorial (sing.), redevelopment, territorial (pl.), board, councilors, assessor, boards	rural territories, local authorities, local finance, position of mayor, merging of regions
Media	telecommunications, journalism, information, freedom of the press, regulation, privacy, television	broadcasting, internet, journalists, telecommunications, computer scientists, television (sing. f.), broadband, television (pl. f.), audiovisual, broadcasting company	radio broadcasts, mass media, public opinion, public telecommunication services, online social networks
Migration	immigration, emigration, asylum, integration, migrant rights, international protection	foreigners, immigration, foreigner, residency, non-EU nationals, immigrants, family reunification, humanitarian, deportation, asylum seekers	National Council for Integration, dual citizenship, maritime border, transit of nomads, entry visa
Military	armed forces, defense, national security, armament, missiles, peace, war	military, armed forces, war, military (pl. m.), conscription, advancement, weapon, non-commissioned officers, carabinieri, soldiers	central defense procurement, National College of Captains, armed forces, compulsory civil service, promoted officers
Public finance	state budget, taxes, taxation, public debt, public expenditure, fiscal policy	tax, benefits, fund, fiscal (pl.), taxes, contribution, fiscal (sing.), contributions, exemption, incentives	state budgets, deposits and loans fund, income tax return, budget balance, budget surplus
Public Works	infrastructures, housing policies, social housing, urban development and planning, urbanism, public housing	real estate, construction industry, dwelling, housing, building, real estate (sing.), infrastructure, residential, real estate (pl.), construction	public contracts, public investments, real estate assets, urban area redevelopment, call for tender

Table A2: Details on topics

Topic	Thematic areas	Top 10 keywords	Bigrams and Trigrams
Security	public order, police, territorial control, terrorism, cyber security, civil protection	police, surveillance, terrorism, criminality, penitentiary (sing. f.), guards, penitentiary (pl. m.), penitentiary (sing. m.), offenses, anti-mafia	fight against the mafia, financial police, public security laws, stadium incidents, state secrets
Social issues	non-profit, third sector, volunteerism, associations, nonprofit organizations, donations, charity, social policies, poverty, disability	disabled, disabled (pl.), elderly, disability, handicap, volunteering, volunteers, volunteer (sing. m.), volunteer (sing. f.), rehabilitation	annual budgets of foundations, conditions of distress and poverty, social solidarity cooperatives, people with disabilities, mutual funds
Sport	sport, football, Olympic games, big events	sporty (pl. f.), sporty (sing. f.), sports, sporty (pl. m.), motor (pl. f.), sporty (sing. m.), amateur, motor (sing. f.), skiing, athletes	World Cup, Winter Olympic Games, Tennis instructor, Sports events, Fan cards
Trade	foreign trade, import-export, international trade, trade agreements, trade balance, retail sector, wholesale sector, hospitality, e-commerce	trade, commercial (pl. m.), commercialization, establishments, commercial (sing.), importation, retail, free port areas, deceptive, exportation	detained activities, chambers of commerce, buying and selling of used goods, warehouse license, supply relationships
Transportation	road, maritime transport, air transport, rail transport, sustainable mobility, public transportation, traffic management	vehicles, road (sing.), motor vehicles, roads, railways, autonomous, fuels, speed, railway (sing. m.), pleasure crafts	port authorities, circulation of heavy vehicles, Italian consular network, validity of driver's license, transportation of goods

Notes: Words are translated from Italian to English. The thematic areas describe the criteria we follow to categorize words in each topic. The "Top 10 keywords" are the ten most frequent words within the titles of bills, for each topic. The last column presents a few examples of bigrams and trigrams used for the manual double checking.

Table A3: Details on the women's subcategory

Topic	Thematic areas	Top 10 keywords	Bigrams and Trigrams
Women	women's right, feminism, gender pay gap, discrimination, maternity, motherhood, equal opportunities, female workers, domestic violence, stalking, adoption, pregnancy	women, maternity, female workers, feminine, woman, mothers, pregnancy, genders, childbirth, fecundation	parental leave, gender representation in elections, diagnostic mammography exam, sexual violence against women, gender discrimination

Notes: Words are translated from Italian to English. The thematic areas describe the criteria we follow to categorize words in each topic. The "Top 10 keywords" are the ten most frequent words within the titles of bills, for each topic. The last column presents a few examples of bigrams and trigrams used for the manual double checking.

A.3 Machine learning

In what follows, we describe the performance of the different models in fitting the region data. Our goal is to predict the survey-based index of gender attitudes (our outcome variable) using Facebook interests, also collected at the regional level. To this end, we estimate commonly used high-dimensional linear models, or machine learning algorithms. In fact, while linear models (such as ordinary least squares) require more observations than predictors, in the case of high-dimensional models the number of variables (and, in turn, the number of coefficients to be estimated) can exceed the sample size. In other words, the design matrix does not need to be of full (column) rank. Indeed, whenever regressors exceed observations, there is no data-driven method to choose one solution, as any linear model will perfectly fit the data, therefore producing a prediction rule that does not perform well out-of-sample (overfitting).

We consider regularized linear models, which are a class of models that extend standard estimation methods, such as linear regressions, by adding a penalty to the magnitude of the coefficients. We fit three prediction models, namely ridge, lasso, and elastic net. Lasso penalizes the absolute value of slope coefficients. Ridge penalizes the sum of squares of the slope coefficients. Elastic net penalizations consist of convex combinations between the former two. We denote by λ the set of tuning parameters (also referred to as penalty parameter or penalty level), namely the parameter that controls 'shrinkage', and therefore the complexity of the model. For $\lambda = 0$, the estimation problem reduces to OLS estimation, with no shrinkage at all. As λ increases, the complexity of the model reduces, up to the limit case of $\lambda = \infty$, where all coefficients are shrinked to zero. As is commonly done, we choose λ via cross-validation. The main difference between lasso and ridge models is that the lasso-type penalization promotes sparsity by forcing many coefficients to be exactly zero, while the ridge-type penalization forces coefficients to be small.

The procedure involves the following steps:

1. Split the data into a training sample (70% of the data) and a testing sample (30%).

2. Tune each model by leave-one-out cross-validation (only training sample).

   (i) Perform leave-one-out cross validation using only observations in the training sample. That is, for each tuning parameter value, fit the algorithm N separate times (where N is the number of data points in the training sample) on all the training data except for one data point, and obtain a prediction for that point. As a result, after iterating over all N folds, this delivers a prediction for every observation in the training sample for every value of the tuning parameter.

   (ii) For each tuning parameter value, compute the squared-error loss over all observations in the training sample.

   (iii) Select the tuning parameter value that delivers the minimum cross-validated forecast error from 2.ii).

   (iv) Re-estimate the model on the full training sample using the optimal tuning parameter.

3. Evaluate the out-of-sample fit of each of the estimated algorithms under the optimal tuning parameter.

   (i) Turn to the hold-out or testing sample. Fit each algorithm and form a prediction for every observation in the testing sample using the best value of the tuning parameter.

   (ii) Estimate the R^2 on the testing sample.

We repeat steps 2 and 3 for each algorithm (ridge, lasso, elastic net) and select the model with the highest predictive ability, as measured by the R^2 from 3.ii). Table A4 reports the goodness-of-fit both in the train and in the testing sample, for each of the considered models. *Refit* refers to the model refit using all training data at the optimal tuning parameter value, in step 2.iv). We also consider using as alternative prediction rule the average of the prediction rules obtained on each cross-validation fold (*Avg.* in the table).

Based on the out-of-sample fit in the testing sample, we can see that the ridge and the elastic net on the basic model have the highest predictive ability. Using the refit and the average prediction rules, the out-of-sample R^2 of the ridge model are 0.343 and 0.349, respectively. The corresponding figures for the elastic net are 0.377 and 0.341. Given that the two models perform very similarly out of sample, we select the ridge model, since it is relative less complex than the elastic net and has only one tuning parameter.

After having chosen the model that best predicts the benchmark region-level index, we estimate it on the interest vectors of Italian municipalities. Finally, we normalize the resulting index to a mean of zero and a standard deviation of one.

Table A4: Model fit

Model	OLS	Ridge	Lasso	Elastic Net
Basic—Refit (Train)	1.000	0.592	0.867	0.906
Basic—Refit (Test)	0.209	0.343	0.210	0.377
Basic—Avg. (Train)	-0.058	0.584	0.857	0.882
Basic—Avg. (Test)	-1.375	0.349	0.226	0.341
Flexible—Refit (Train)	1.000	0.324	0.966	0.956
Flexible—Refit (Test)	0.209	0.048	0.372	0.389
Flexible—Avg. (Train)	-0.058	0.318	0.906	0.889
Flexible—Avg. (Test)	-1.375	0.035	0.365	0.291

Notes: This table summarizes the goodness of fit of each of the estimated models (as indicated in each column) from the training data (*Train*) and from the set aside validation data (*Test*). *Refit* refers to the model refit using all training data at the cross-validation optimal tuning parameter value. *Avg.* refers to using as prediction rule the average of the prediction rules obtained on each cross-validation fold. *Basic* refers to the model where the regressors are gender-related Facebook interests collected at the regional level. *Flexible* refers to the model augmented by all pair-wise interactions. The goodness of fit is measured by the R^2.

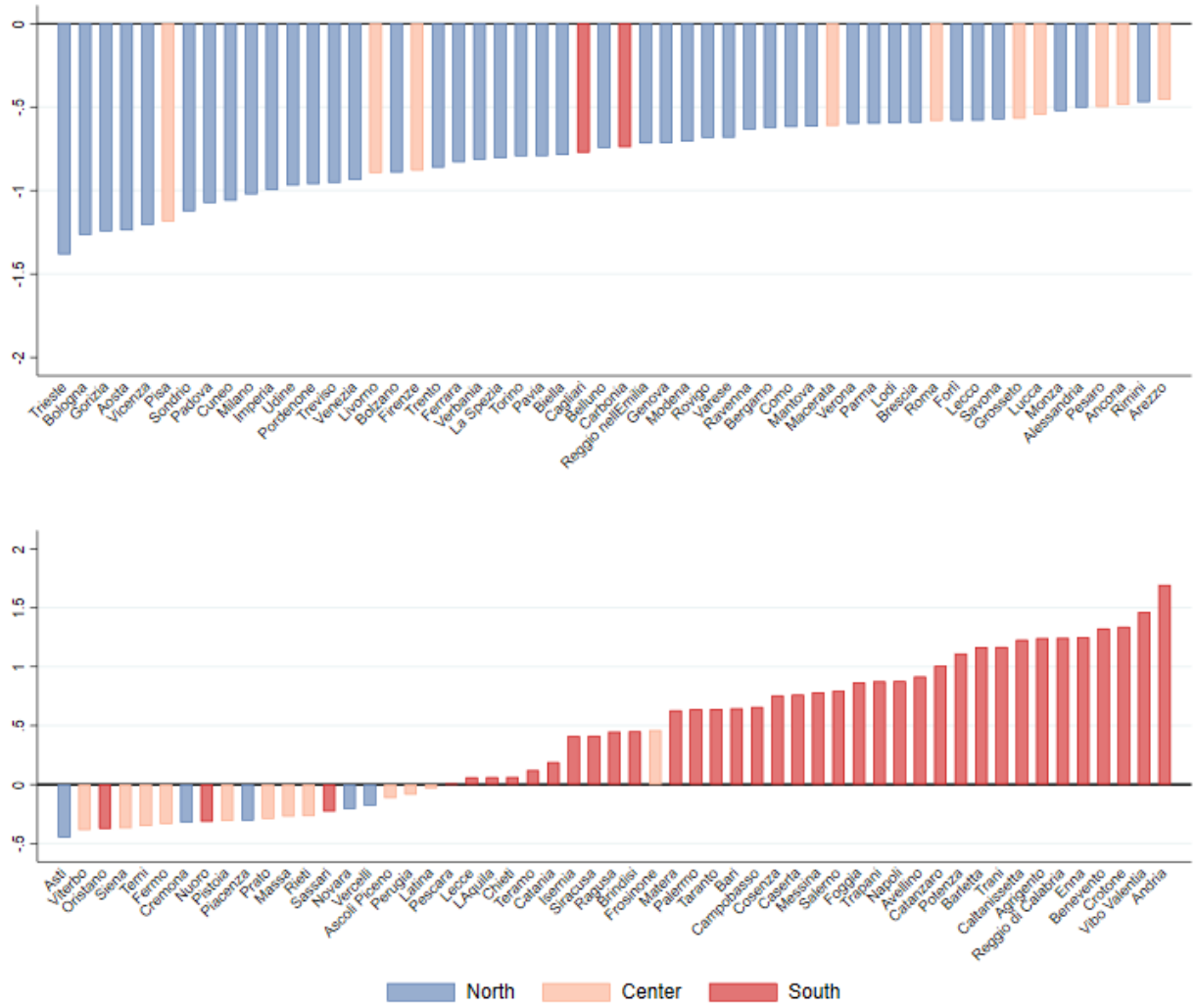
A.4 Cultural affinity of Italian province capitals based on Facebook interests

In what follows, we analyze the cultural similarities and differences across the 109 province capitals of Italy, complementing the analysis of cultural affinity among regions (see Section 4.4).

First, Figure A1 ranks all province capitals in terms of the *GNI*. Recall that higher values of the GNI indicate more conservative norms. The bars are colored according to the province capital's geographical location, with blue bars indicating capitals in the North of Italy, orange bars capitals in the Center, and red ones, those in the South. We can see that the ranking of the different province capitals is broadly consistent with findings suggested by the regional analysis. Province capitals located in the North or Center of Italy have more gender progressive attitudes (corresponding to negative values of our index), while Southern capitals are characterized by the highest values. Specifically, the cities of Trieste, Bologna, and Gorizia are those with the most progressive attitudes, while Crotone, Vibo Valentia, and Andria lie in the highest range. Moreover, some capitals—Pisa, Livorno, and Firenze Lucca—feature particularly progressive gender norms (low index) despite being located in Central Italy (and therefore colored in orange). These cities are located in the region of Tuscany, a region well-known to be particularly progressive according to more general indicators of civic capital (see, e.g., Durante, Guiso and Gulino, 2021). Similarly, also other province capitals located in the island of Sardinia—Cagliari and Carbonia—lie on the left hand of the gender norms distribution (in red). This is consistent with the above-mentioned clustering of Sardinia together with regions in Central Italy, rather than with the South. This can be explained with historical heterogeneity in the modes of production, as well as the presence of matri-uxoral communities (see Oppo, 1990).

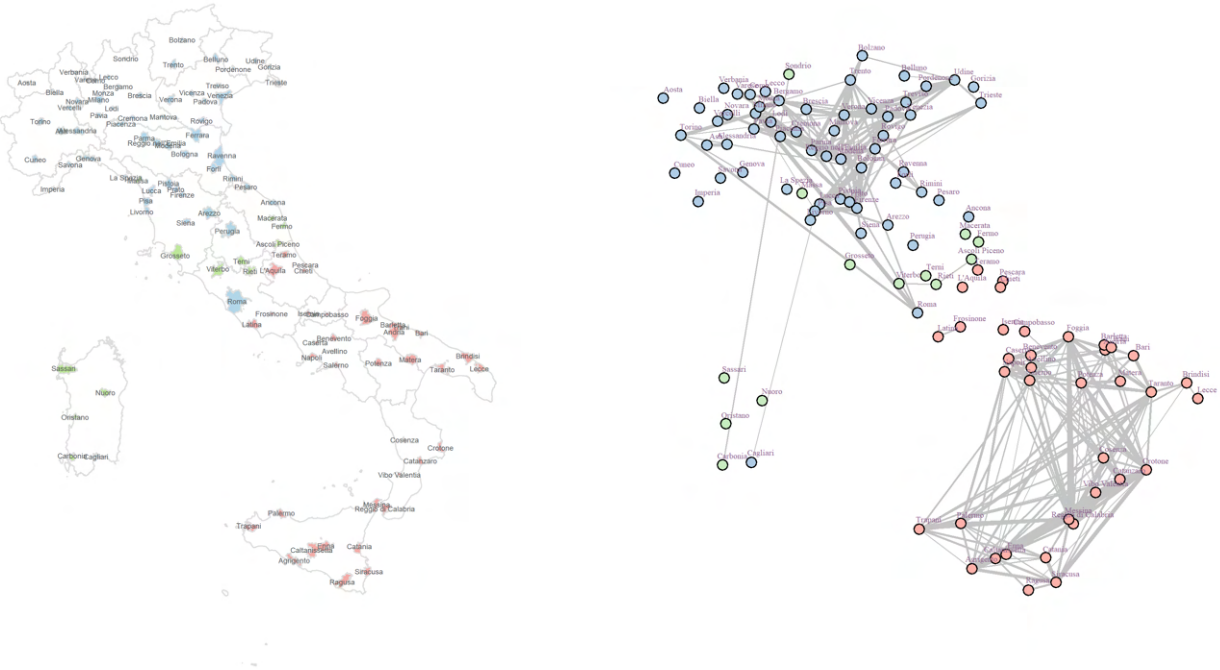
The same similarities are confirmed when looking at the map and network of Italian province capitals, as displayed in Figure A2. While the network of province capitals displays strong links between cities *within* the North, as well as between cities *within* the South, there are no relatively strong connections between any of the cities in the two groups. This again confirms local cultural similarities of cities in the North, as well as those in the South, with a marked cultural divide between the two.

Figure A1: *GNI* across Italian province capitals



Notes: The Figure ranks province capitals based on the corresponding value of the GNI in ascending order, namely from more traditional to progressive ones. Bars are colored according to the province capital's geographic location, with capitals in Northern, Central, and Southern Italy colored in blue, yellow, and red, respectively.

Figure A2: Cultural networks of province capitals based on Facebook gender-related interests



Notes: The Figure displays the map and the network of Italian province capitals. The network is based on the standardized cosine similarity between the capitals. Specifically, the network uses the capitals as nodes, and links are weighted according to the standardized cosine similarity between nodes. Communities – more similar clusters within the larger network – are identified using the Louvain community detection algorithm. Province capitals (nodes) are colored according to their community affiliation. Three communities of province capitals are detected. The width of the links depends on the similarity between the nodes, with greater width indicating greater similarity. In the figure, we filter out weak connections, displaying only links between nodes whose similarity is sufficiently high (at least 4.5% of the maximum similarity).

A.5 Regional distribution of generic (non-gender related) interests

Appendix Table A5 lists some examples of the generic interests for which specific regional patterns are relatively common knowledge among Italian citizens. Appendix Figure A3 confirms our expectations on the regional distribution of the normalized Interest Ratio for these (generic) interests. As for soccer teams (Panel A), we can see that the highest penetration rates of *Juventus F.C.* and *A.C. Milan* are in Piedmont and Lombardy, respectively, which are the regions of origin of the two teams. At the same time, as anticipated, the penetration of Juventus fans is much more evenly spread across the whole Italian territory. As for sport activities, Panel (B) shows that both *hiking* and *skiing* present a much higher popularity in the North (that is, near the Alps) than in the South of Italy. Panel (C) refers to the penetration rates of Italian volcanoes. *Mount Etna*, one of the tallest active volcanoes in Europe, is a cultural outlier for Sicily, the region where it is located.[57] Interest ratios of the more generic *volcano*, instead, reveal two peaks in Sicily and Campania, which correspond the two regions with (at least) a volcano in their territory (Etna and Vesuvio, respectively). Similarly, panels (D), (E), (F) exhibit the popularity patterns of regional culinary specialties, UNESCO cultural heritages and famous singers with a marked regional fan base. Once again, all our expectations are confirmed. Finally, as for politics, *Matteo Renzi*, the former Italian Prime Minister who lost much of his political consensus after losing the constitutional referendum of 2016, nowadays presents an exclusive popularity in Tuscany, his region of origin.[58] By contrast, the interest for the *Five Stars Movement* (M5S), one of the most popular political parties of the last decade, is more evenly diffused across the Italian peninsula, with a greater popularity in the South. In fact, it is striking how closely the regional distribution of the *Five Star Movement*'s Interest Ratio tracks that of its vote shares in the last national elections of 2018, with a Pearson correlation coefficient as high as 0.81. The two maps are displayed in Appendix Figure A4.

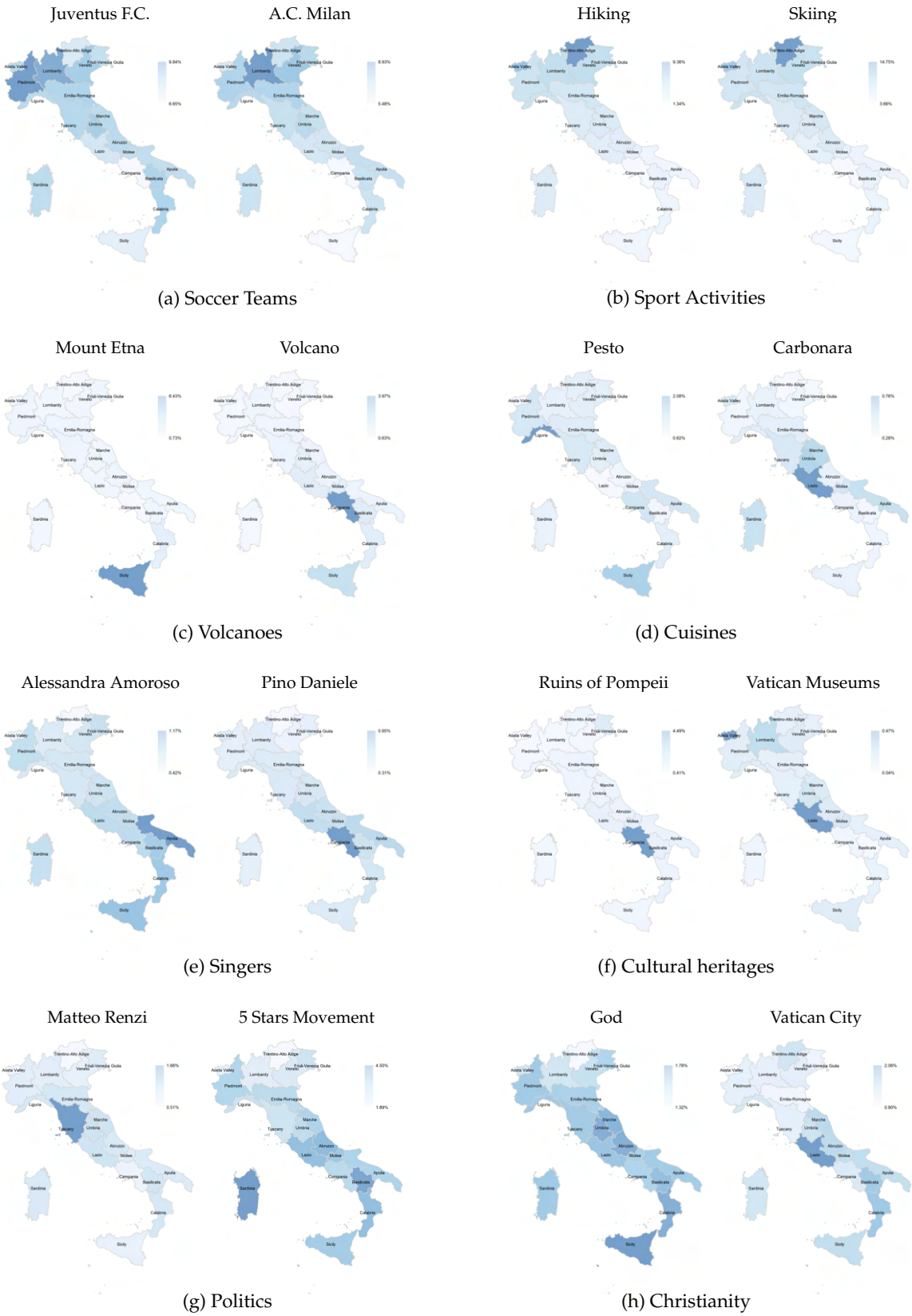
Table A5: Examples of generic (non-gender related) Facebook interests

Topic	Interests
Soccer teams	*A.C. Milan*, *Juventus F.C.*
Sport activities	*Hiking*, *Skiing*
Volcanoes	*Mount Etna*, *Volcano*
Cuisines	*Pesto*, *Carbonara*
Singers	*Alessandra Amoroso*, *Pino Daniele*
Cultural heritages	*Ruins of Pompeii*, *Vatican Museums*
Politics	*Matteo Renzi*, *Five Stars Movement*
Christianity	*God*, *Vatican City*

[57] Following Obradovich et al. (2020), a cultural outlier is defined as an interest that presents a penetration in that region that is at least twice higher than that interest's share in any other Italian region.

[58] Matteo Renzi has been also president of the province of Florence from 2004 to 2009 and mayor of Florence from 2009 to 2014.

Figure A3: Examples of generic interests' popularity by region



(a) Soccer Teams

(b) Sport Activities

(c) Volcanoes

(d) Cuisines

(e) Singers

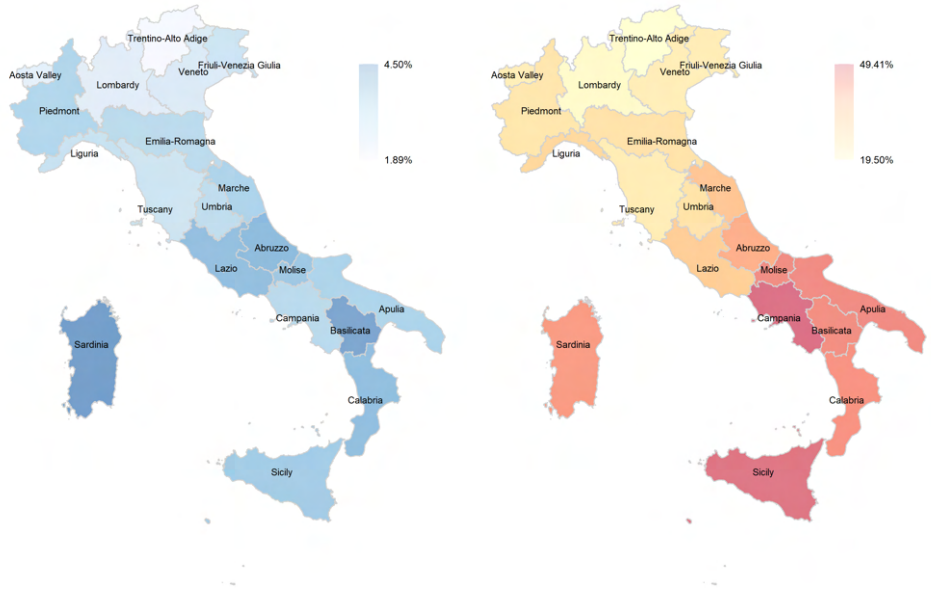
(f) Cultural heritages

(g) Politics

(h) Christianity

Notes: The Figures display the regional popularity of the considered generic interests based on the interest's regional audience sizes from Facebook. Our measure of an interest's popularity in a given region is the normalized interest ratio (IR), as defined in Section 4.

Figure A4: Regional variation in Facebook interest and vote shares for the Five Stars Movement

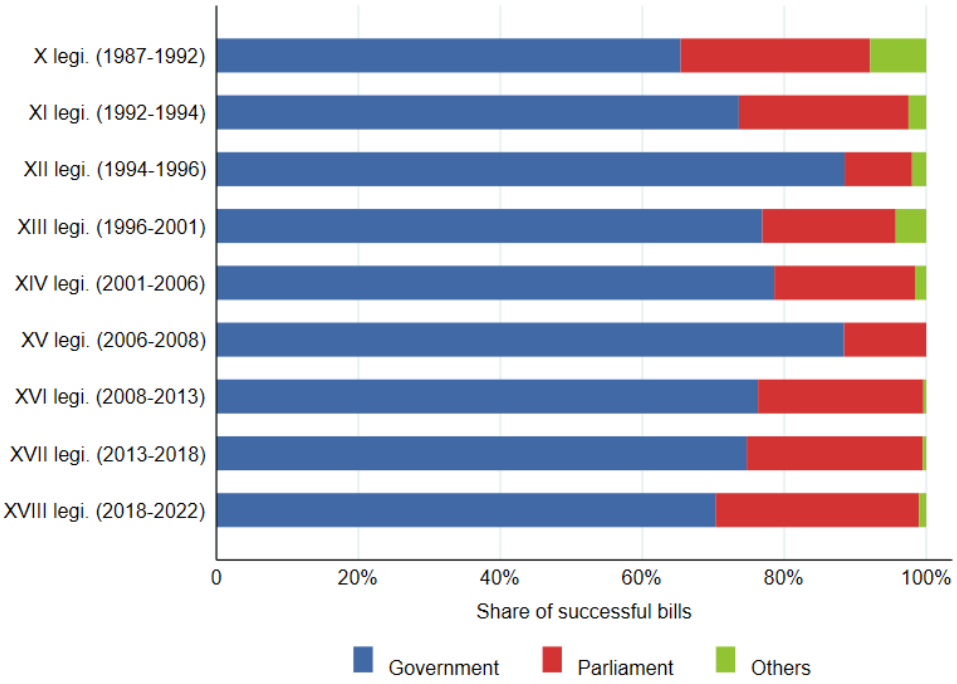


(A) Interest ratio (B) Vote Share

Notes: The Figure displays the popularity of the interest *Five Stars Movement* (Panel A) and the vote shares for the Five Stars Movement in the 2018 general election (Panel B) across Italian regions. Our measure the interest's popularity in a given region is the normalized interest ratio (IR), as defined in Section 4, based on the Facebook audience size for *Five Stars Movement* by region. Data on vote shares are from the electoral archives (*Eligendo*) of the Italian Ministry of the Interior, available at https://elezionistorico.interno.gov.it. The correlation between Facebook interest and vote shares for the Five Stars Movement is as high as 0.812.

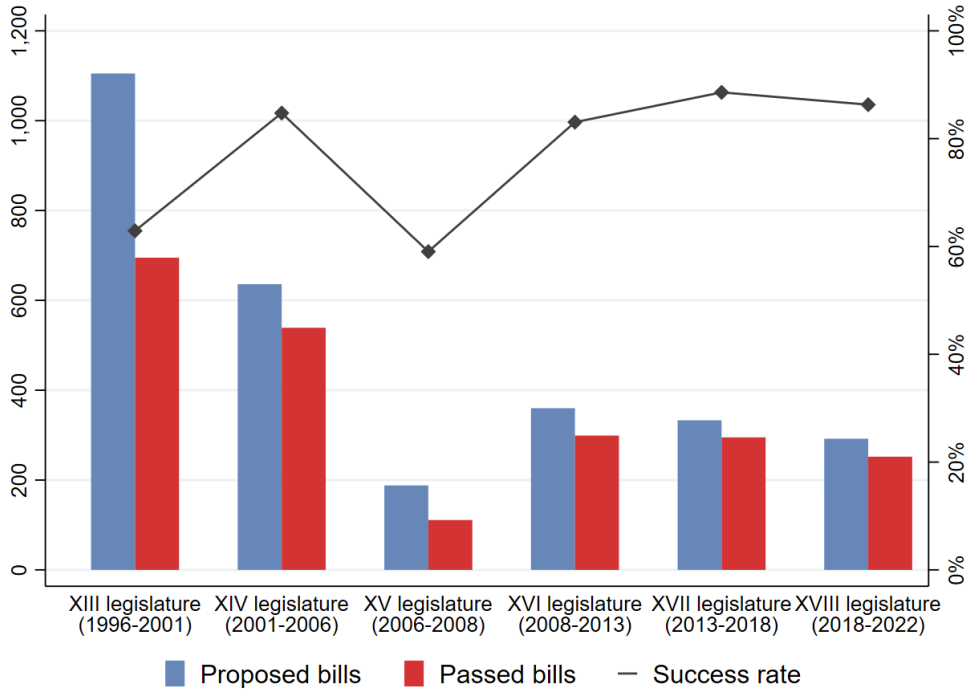
B Appendix Figures and Tables

Figure B1: Successful bills by legislative initiative

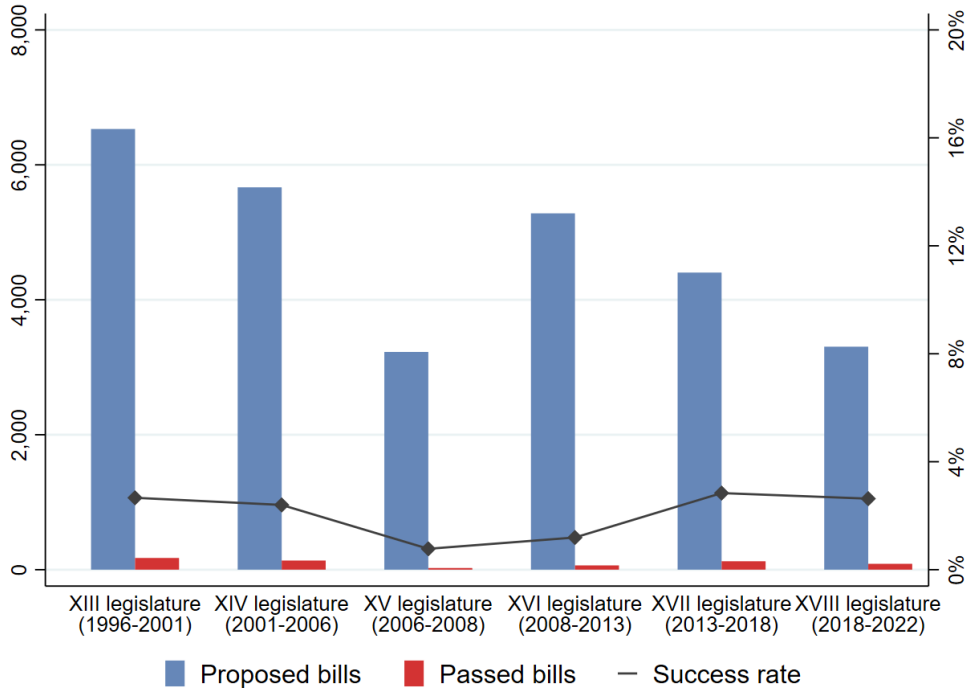


Notes: This figure shows the share of bills ultimately approved during our sample period, classified according to the initiative origin. *Others* category includes all bills of popular, regional, and mixed origin. Source: Data processed by the authors from the *Camera dei Deputati* digital archives and *Openpolis*.

Figure B2: Legislative activity



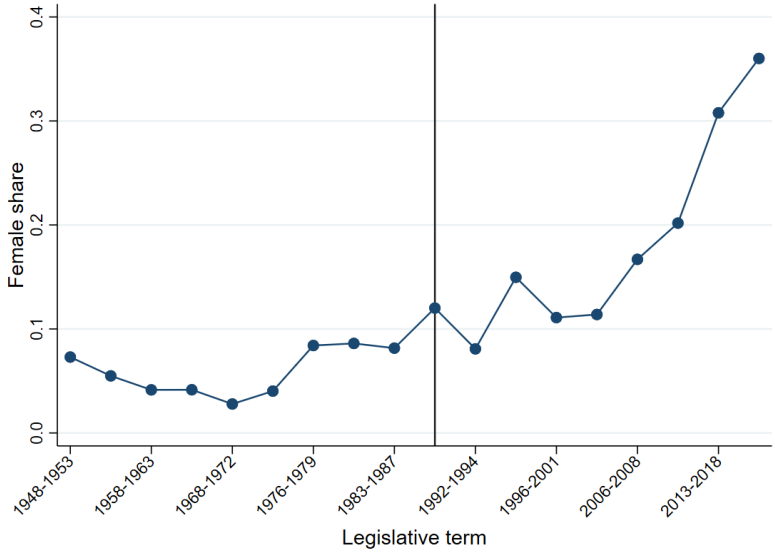
(A) Government



(B) Parliament

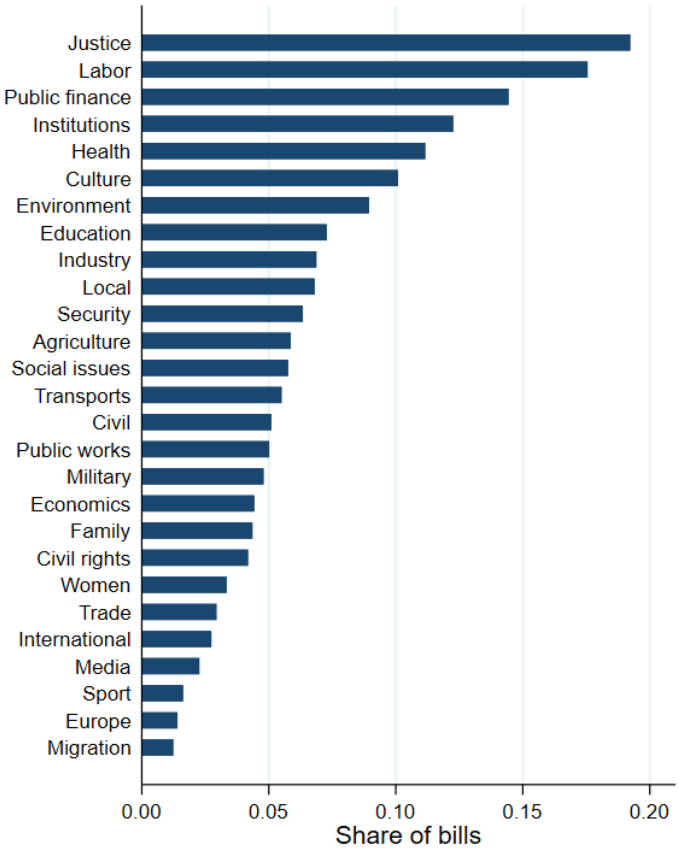
Notes: These graphs compare the efficacy of the legislative activity of the Italian governments and Parliament from legislature XIII to legislature XVII (note: previous legislatures in the sample are omitted due to lack of data). Source: Data processed by the authors from the *Camera dei Deputati* digital archives and *Openpolis*.

Figure B3: Female share in the Italian House of Representatives across legislative terms



Notes: This figure depicts the share of female politicians elected to the House of Representatives in each legislative term between 1948 and 2022 (Legislatures I to XVIII). The black vertical line corresponds to the legislature elected in 1987 (Legislature X), the first legislature of our sample.

Figure B4: Bill topics distribution



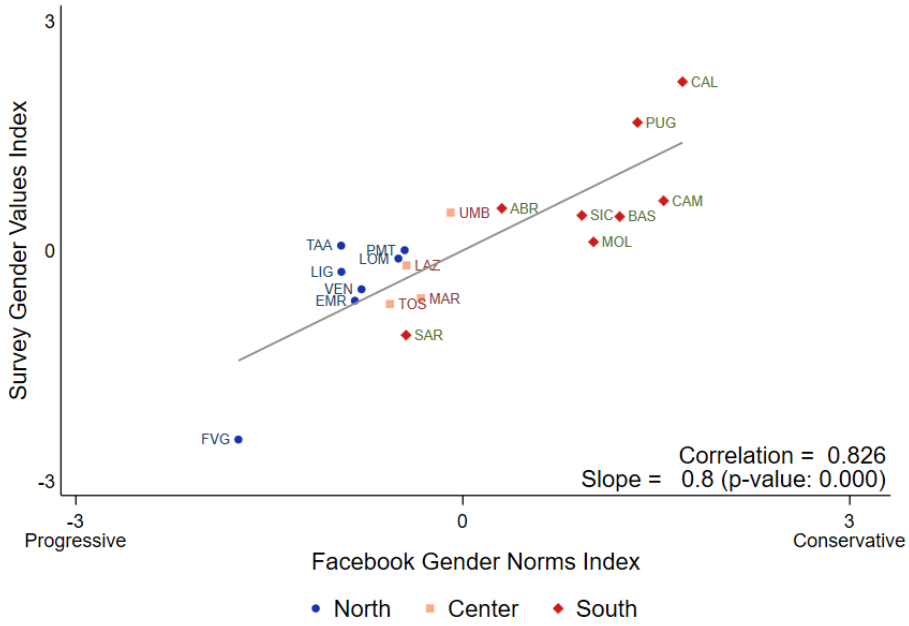
Notes: The graph illustrates the distribution of bills across the 26 non-mutually exclusive topics and the additional 'women' subcategory. Each bar represents the share of bills associated with the corresponding topic. The data used in the analysis is obtained from the Italian House of Representatives and include all the bills sponsored between the years 1987 and 2022.

Figure B5: Benchmark survey-based Gender Values Index (*GVI*) for Italian regions

Question	Loading
Men have more right to a job than women	0.21
Pre-school child suffers with working mother	0.18
University is more important for boys	0.30
Men make better political leaders	0.31
Men make better business executives	0.31

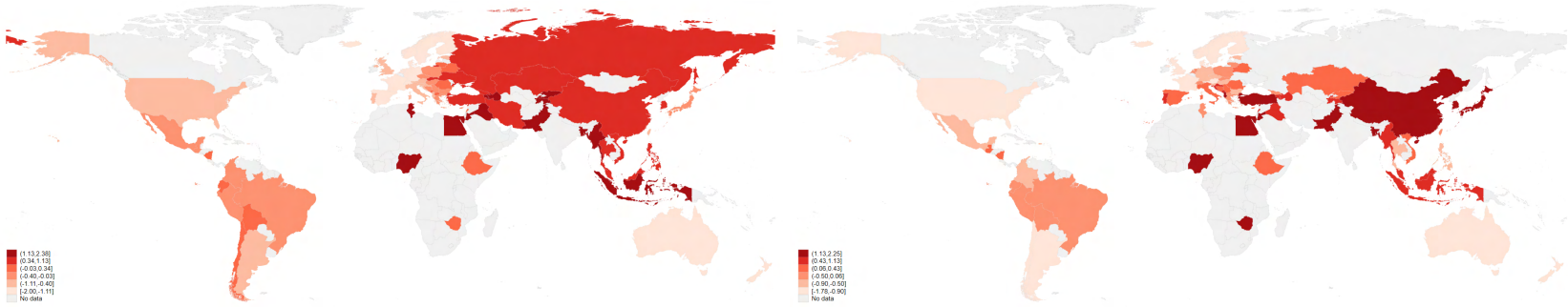
Notes: The Gender Values Index (*GVI*) is a weighted sum of all responses listed in the table (left-hand panel). The variable "Men have more right to a job than women" is coded: 1: Disagree; 2: Neither agree nor disagree; 3: Agree. The other variables are coded: 1: Strongly disagree; 2: Disagree; 3: Agree; 4: Agree strongly. Weights are estimated by Principal Component Analysis and are displayed in the table. The data is from the joint EVS/WVS 2017-2021 dataset. The geographical map (right-hand panel) displays the *GVI* across Italian regions.

Figure B6: Correlation between Facebook and survey-based indices across regions



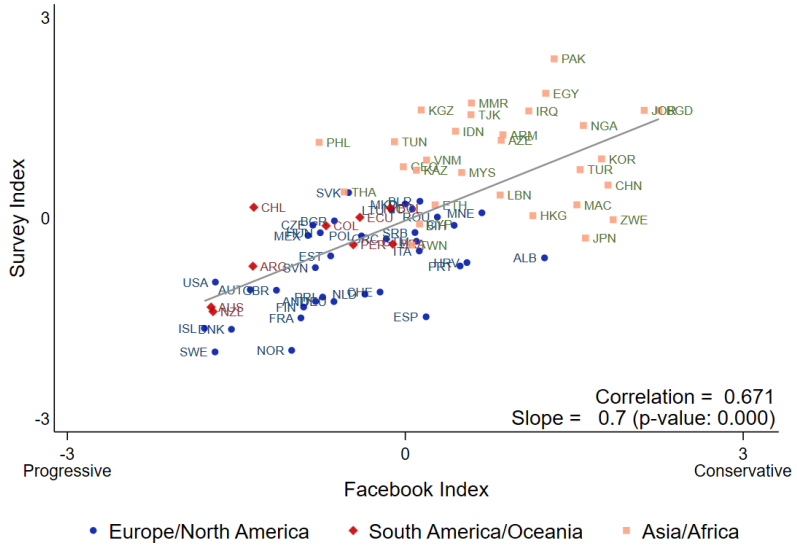
Notes: The Figure presents a scatter plot comparing two indices of gender norms across Italian regions, namely the benchmark survey-based *GVI* (y-axis) and the Facebook-based *GNI* (x-axis). The *GVI* is derived using Principal Component Analysis on five questions from the European Values Survey (listed in the left-hand panel of Appendix Figure B5). The *GNI* is generated by estimating the selected model on the Facebook gender-related interest vectors of Italian regions (see Section 4). The solid line indicates the best linear fit estimated on the corresponding linear regression. The regression coefficient shows the estimated slope of the best linear fit line, together with the corresponding p-value. Regions are colored depending on whether they are located in Northern (blue), Central (orange), or Southern (red) Italy.

Figure B7: Cross-country survey- and Facebook-based indices of gender norms



(A) Survey-based index

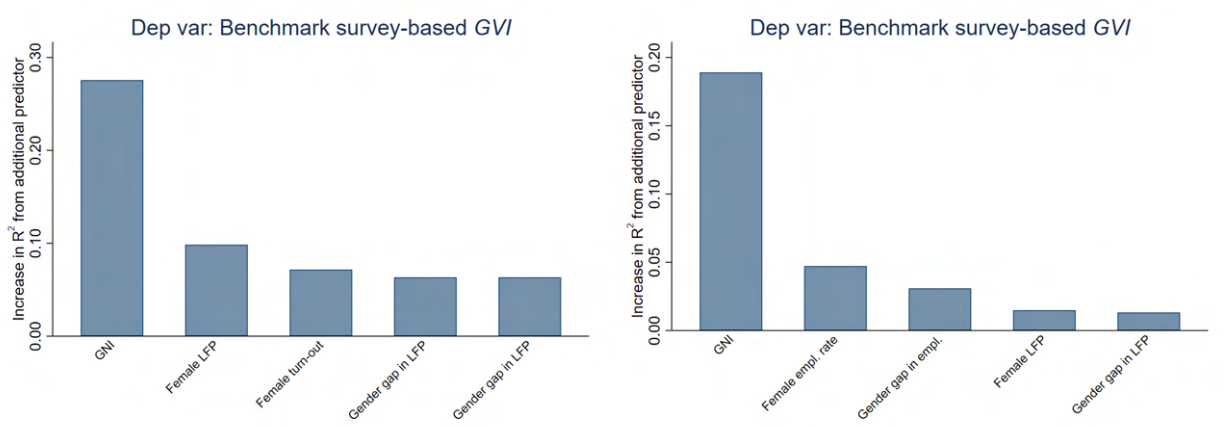
(B) Facebook-based *GNI*



(C) Facebook and survey indices

Notes: The Figure presents a survey-based index of gender attitudes (Panel A), the Facebook-based *GNI* (Panel B), and the scatter plot depicting the correlation between these two indices (Panel C). The sample includes 77 countries for which both survey and Facebook data are available. The survey-based index is generated from the joint EVS/WVS 2017-2021 dataset, using the same procedure as the benchmark survey-based Gender Values Index (*GVI*) for Italian regions (see Figure B5). The cross-country *GNI* is generated following the same procedure as the *GNI* for Italian municipalities. Specifically, we collect data on the popularity of gender-related interests across countries, build countries' interest vectors, and summarize these vectors using the parameter estimates of the machine-learning model estimated on Italian regions (see Section 4.2).

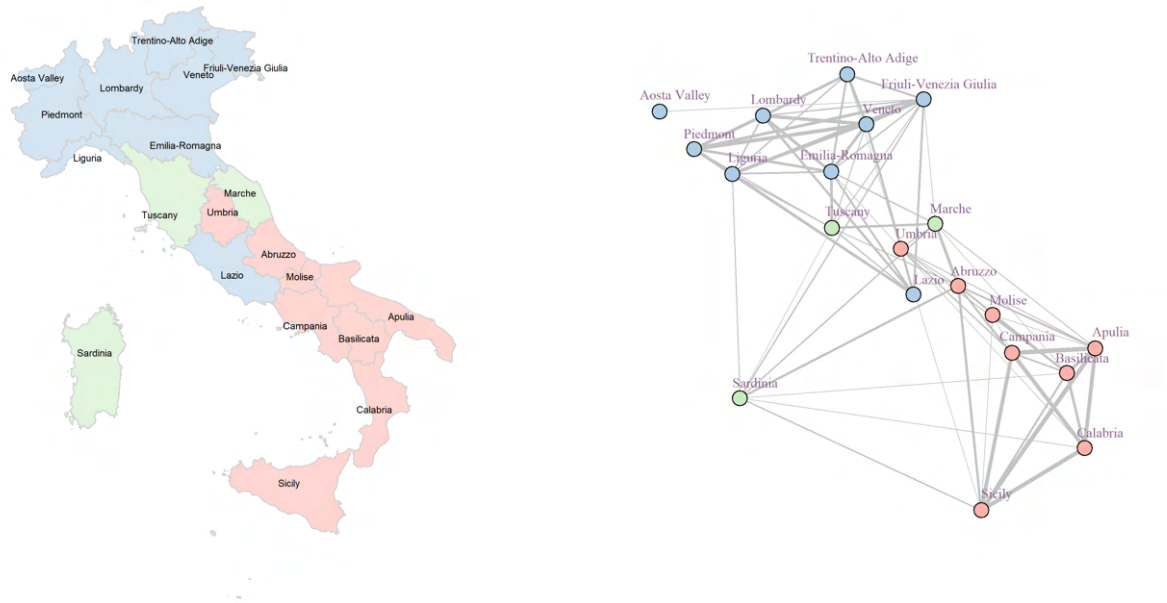
Figure B8: Increase in R^2 for measures of gender norms



(A) Across regions (B) Across countries

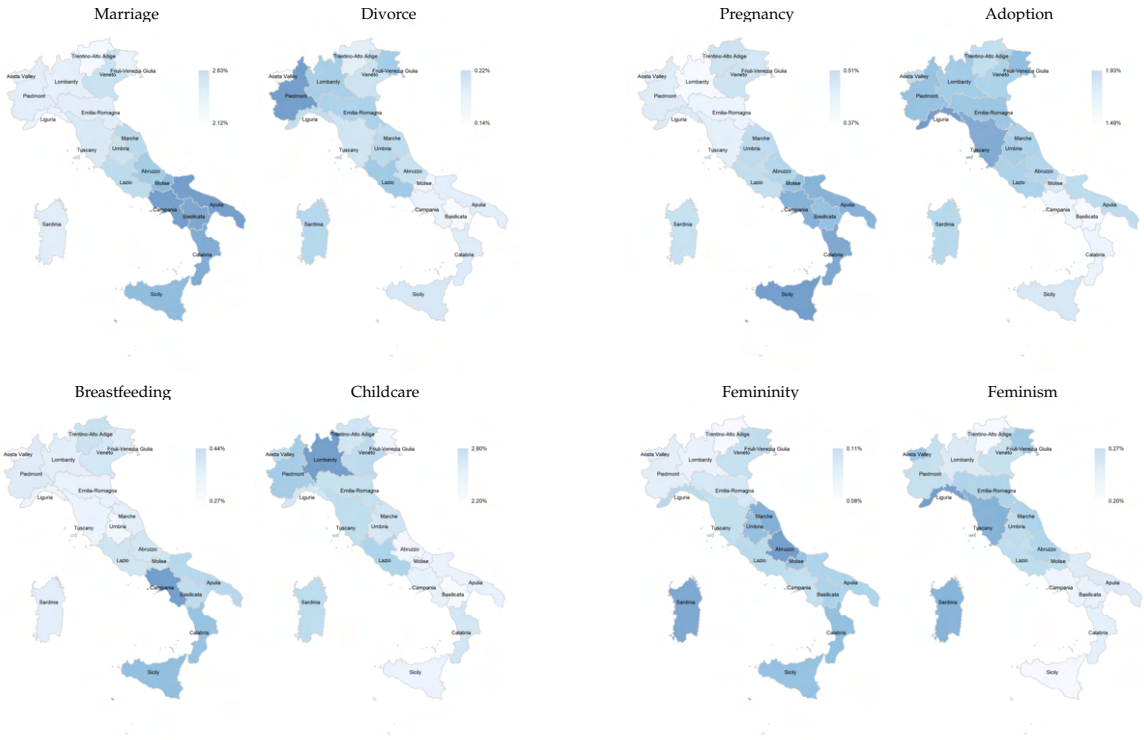
Notes: The figure compares the ability of the *GNI* and other gender norm proxies to capture variation in survey indices across regions in Italy (Panel A) and countries worldwide (Panel B). Specifically, each bar indicates the increase in R^2 from including the corresponding variable (as indicated on the *x*-axis) in a model including all of the other variables.

Figure B9: Regional networks based on Facebook gender-related interests



Notes: The Figure displays the map and the network of Italian regions. The network is based on the standardized cosine similarity between the regions. Specifically, the network uses regions as nodes, and links are weighted according to the standardized cosine similarity between nodes. Communities—more similar clusters within the larger network—are identified using the Louvain community detection algorithm. Regions (nodes) are colored according to their community affiliation. Three communities of regions are detected. The width of the links depends on the similarity between the nodes, with greater width indicating greater similarity. In the figure, we filter out weak connections, displaying only links between nodes whose similarity is sufficiently high (at least 1.5% of the maximum similarity).

Figure B10: Examples of gender-related interests' popularity by region

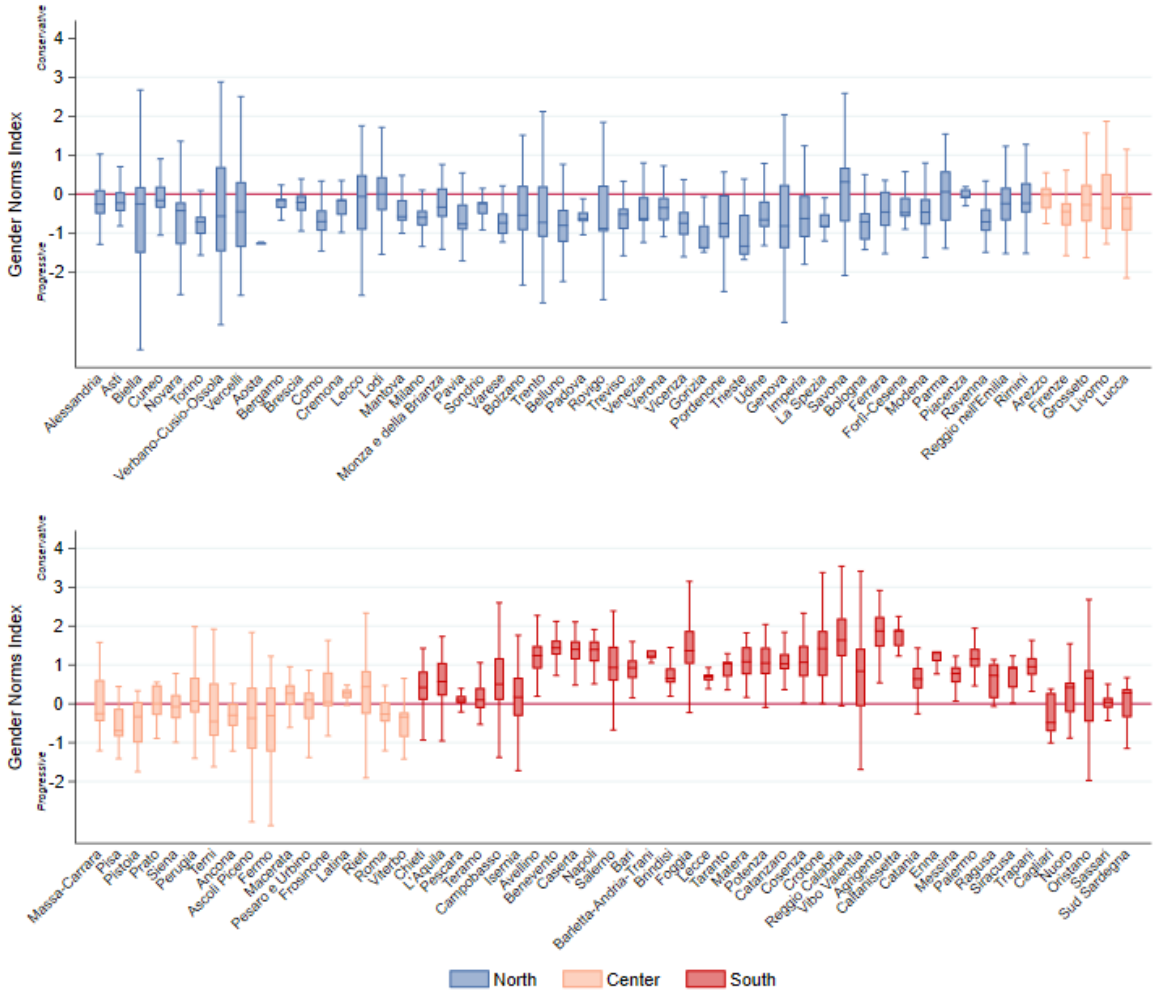


Notes: The figures present maps of Italy, with each region colored to reflect the popularity of selected gender-related interests from our list used to develop the *GNI*. This popularity is measured using the normalized interest ratio (IR) based on the interest's regional audience sizes from Facebook, as defined in Section 4.1.

Figure B11: Clusters of Italian regions based on their gender norms

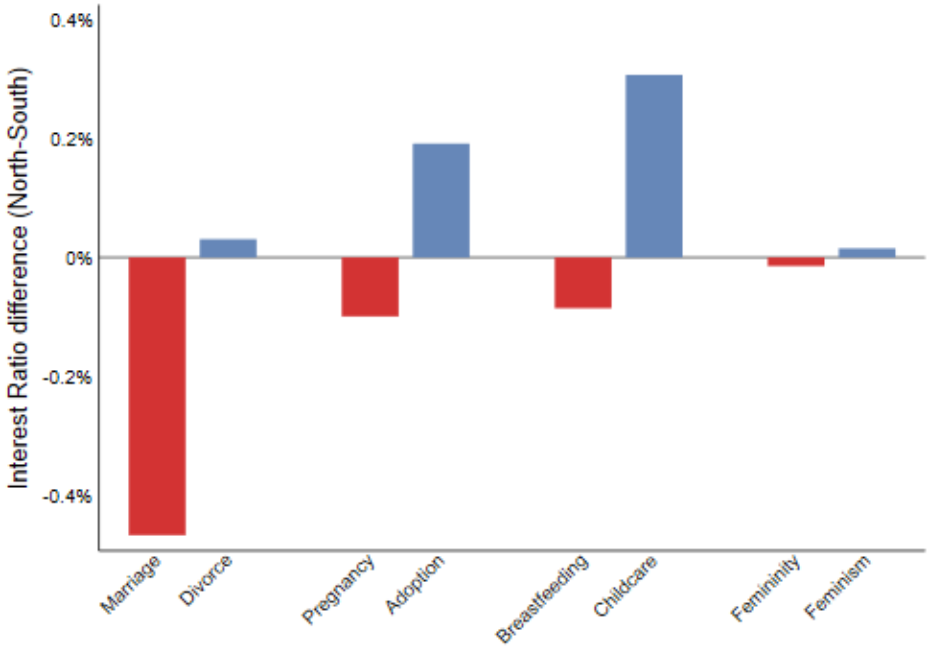
Notes: The Figure displays the dendrogram, showing hierarchical clustering between Italian regions. The color of a region's link represents its membership to a main cluster. The color of a region's name represents its membership to a sub-cluster. The dendrogram is generated using cosine distances between the regional normalized interest ratios for our gender-related interests. Hierarchical clustering is performed using the complete linkage algorithm.

Figure B12: The distribution of the *GNI* by province



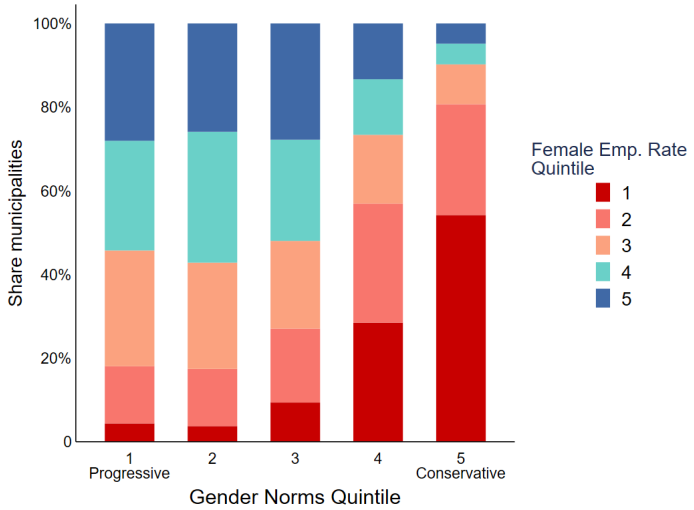
Notes: The Figure depicts different quantiles of the distribution of the Gender Norms Index (*GNI*) across Italian municipalities by province. For each region, the shaded box ranges from the first quartile (Q1) to the third quartile (Q3) of the distribution of the *GNI*. The median is indicated by a line across the box. The vertical lines on each box extend from Q1 and Q3 to the most extreme data points. Outliers are not shown. The larger the index, the more traditional a given area is. Provinces are colored depending on whether they are located in Northern (blue), Central (orange), Southern (red) Italy.

Figure B13: North-South popularity differences in selected gender-related interests



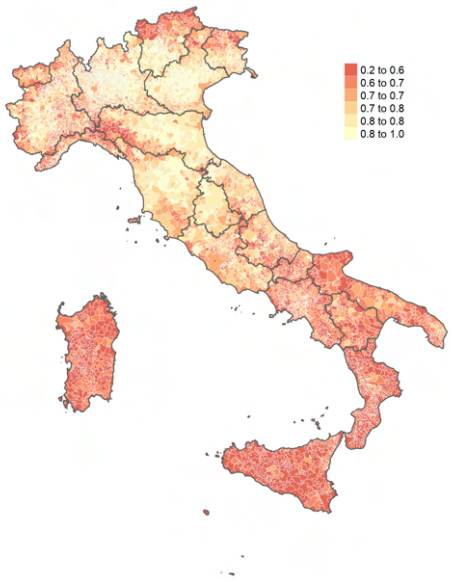
Notes: The figure illustrates the North-South differences in the popularity of selected gender-related interests from our list used to develop our *GNI*. The differences are computed based on the population-weighted average interest ratio (IR) (as defined in equation 1) between Northern and Southern regions. Bars below the horizontal line indicate more popularity in the South (in red), while those above signal greater popularity in the North (in blue).

Figure B14: *GNI* and female employment

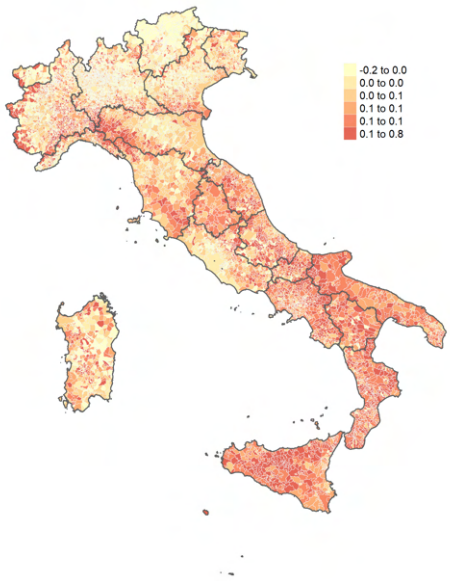


Notes: The stack bar graphs display the relationship between municipal-level female employment and the *GNI*, grouped into quintiles. The x-axis indicates the quintile of the *GNI* (with bottom quintiles indicating more progressive attitudes, and top quintiles more conservative ones), while bars are colored according to the proportion of municipalities falling in each of the five quintiles of female employment. Red and blue indicate, respectively, the 1^{st} and 5^{th} quintiles in terms of female employment. The quintiles for female employment are as follows: 42.5%, 77.5%, 85.1%, 89.4%, 91.7%. The data on female employment are from the Italian Institute of Statistics (ISTAT) and refer to women aged 25–49.

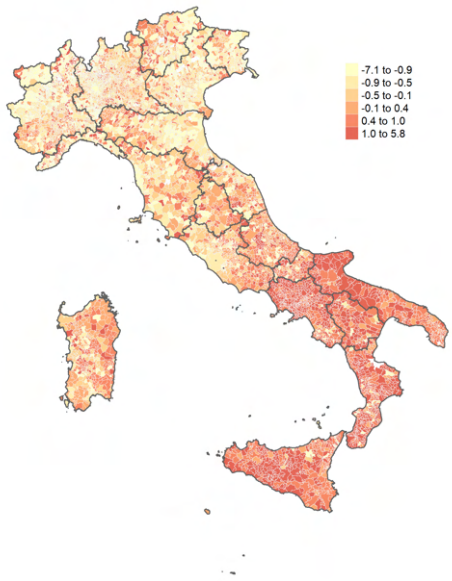
Figure B15: Gender norms and female electoral turn-out



(A) Female turn-out



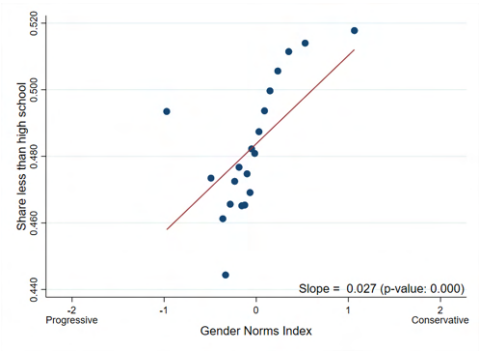
(B) Male–female turn-out



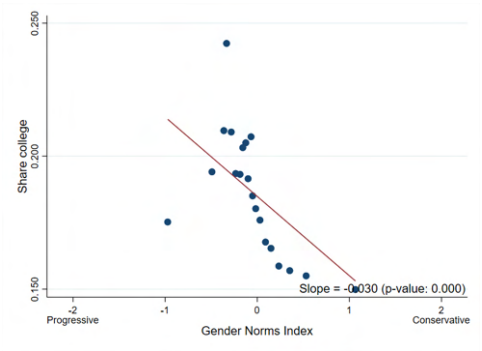
(C) *GNI*

Notes: The Figure displays the female turn-out in the 2018 general election (Panel A), the male-female difference in turn-out in the 2018 general election (Panel B), and the *GNI* (Panel C) across Italian municipalities. The data on vote shares are from the electoral archives (*Eligendo*) of the Italian Ministry of the Interior, available at https://elezionistorico.interno.gov.it. The population-weighted correlation between the *GNI* and female turn-out is given by -0.59 ($p < 0.01$), while the correlation between the *GNI* and the gender gap in turn-out is given by 0.54 ($p < 0.01$).

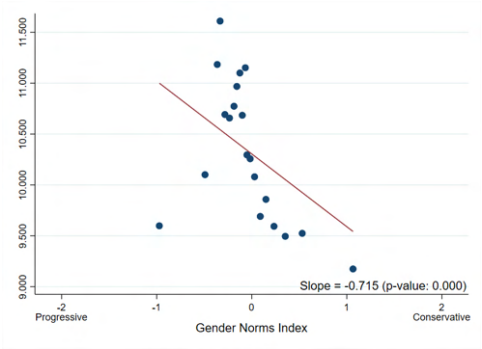
Figure B16: *GNI* and municipal socioeconomic indicators



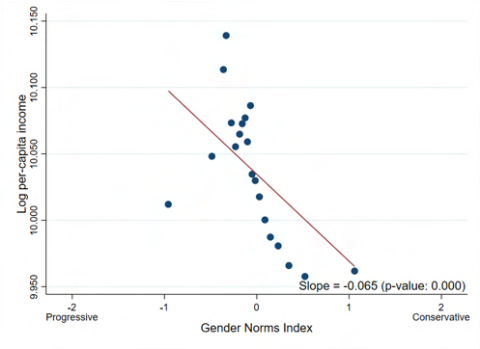
(A) Share less than high school



(B) Share college graduates



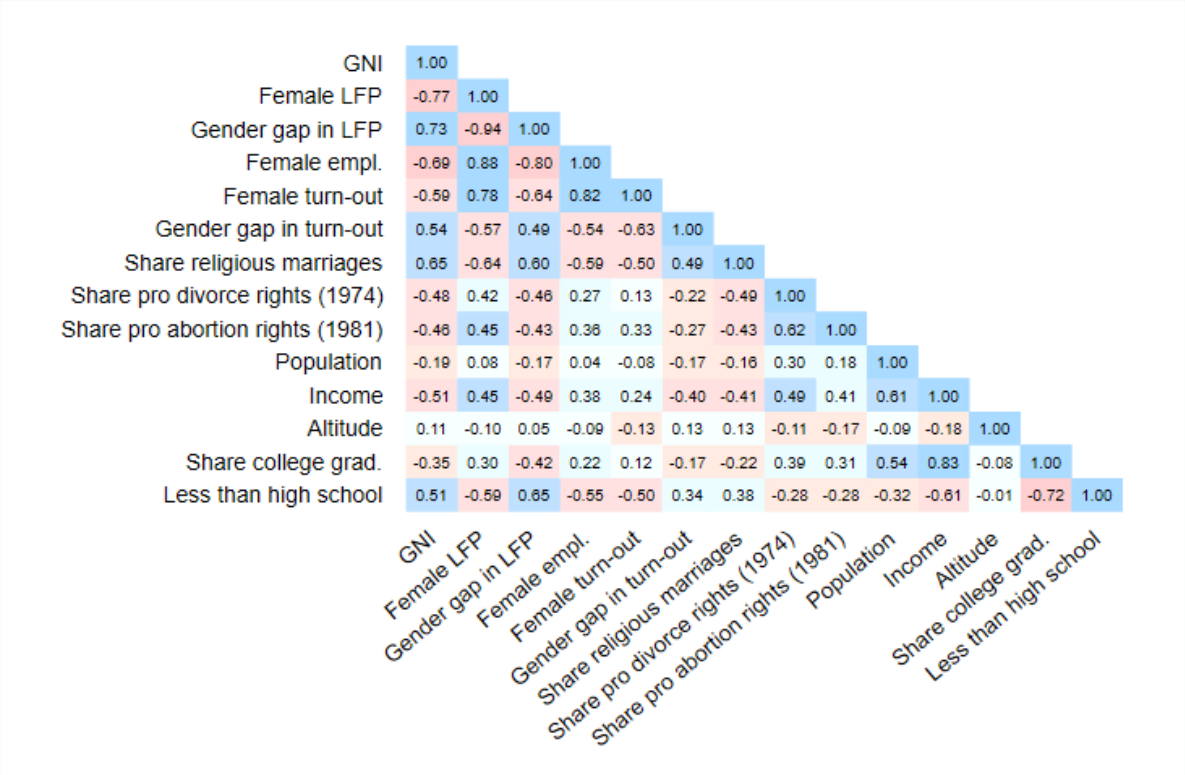
(C) Log population



(D) Log per-capita income

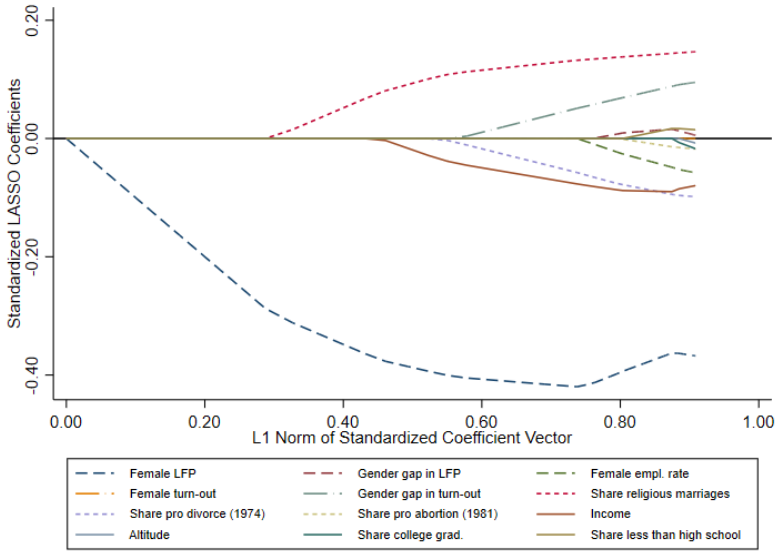
Notes: The Figure illustrates the relationship between residualized municipal characteristics and the *GNI* across Italian municipalities, after controlling for CZs fixed effects. In Panel (A), the outcome variable is the share of individuals without a high school diploma, in Panel (B) the share of college graduates, in Panel (C) the log population, and in Panel (D) the log per-capita income. These binned scatter plots are generated by first regressing the considered outcome variable (y-axis variable) and the *GNI* (x-axis variable) on the set of CZs fixed effects, and then generating the residuals from these regressions. The residualized variables are then plotted, after adding back the means of each variable for scaling purposes (see Chetty, Friedman and Rockoff, 2014). The solid line shows the best linear fit estimated on the corresponding fixed effect regression. The regression coefficient shows the estimated slope of the best fit line, together with the corresponding p-value.

Figure B17: Correlation matrix for gender norms measures and other characteristics across municipalities



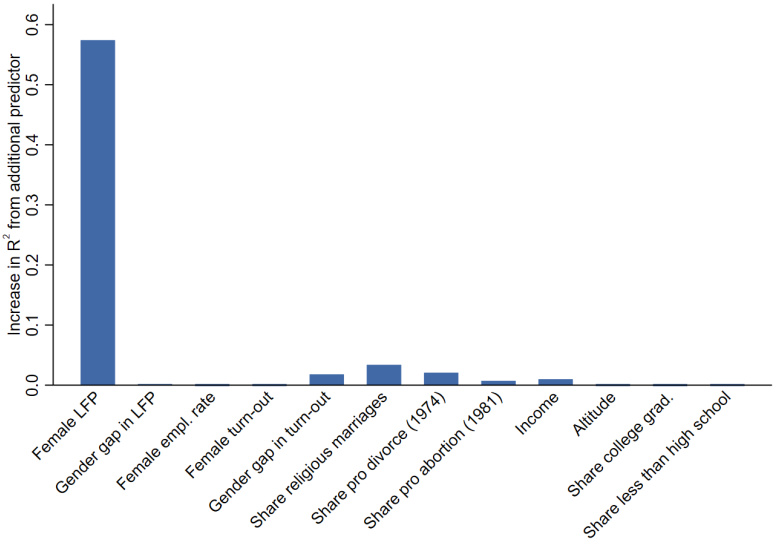
Notes: The figure reports municipal-level population-weighted pairwise correlations among our *GNI*, different proxies for gender norms, and other municipal characteristics. All variables are standardized to have a mean of zero and a standard deviation of one. The blue shading in the heatmap indicates the strength of the correlation, with darker shades indicating stronger correlations in magnitude.

Figure B18: *GNI* municipal-level strongest predictors



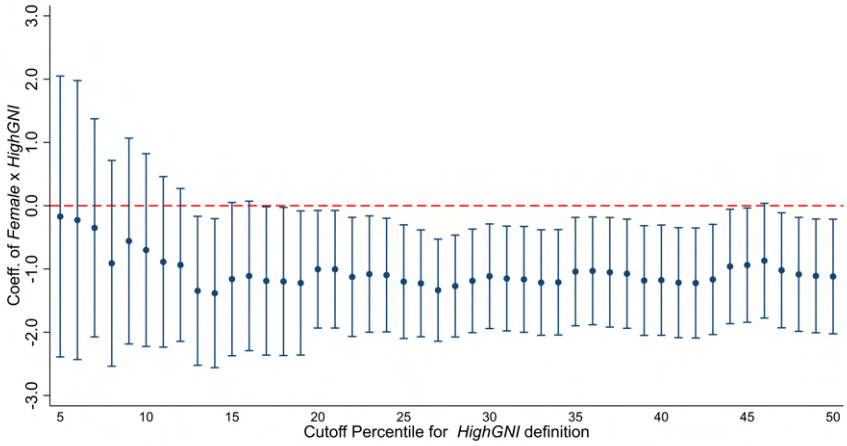
Notes: This figure displays the Lasso estimates from population-weighted Lasso regressions of the dependent variable (the GNI) on the considered predictors (indicated in the legend). Each line represents the coefficient trajectory of a specific predictor across different regularization parameters. Recall that the larger the *GNI*, the more traditional a given municipality is.

Figure B19: Incremental R^2 for *GNI* predictors



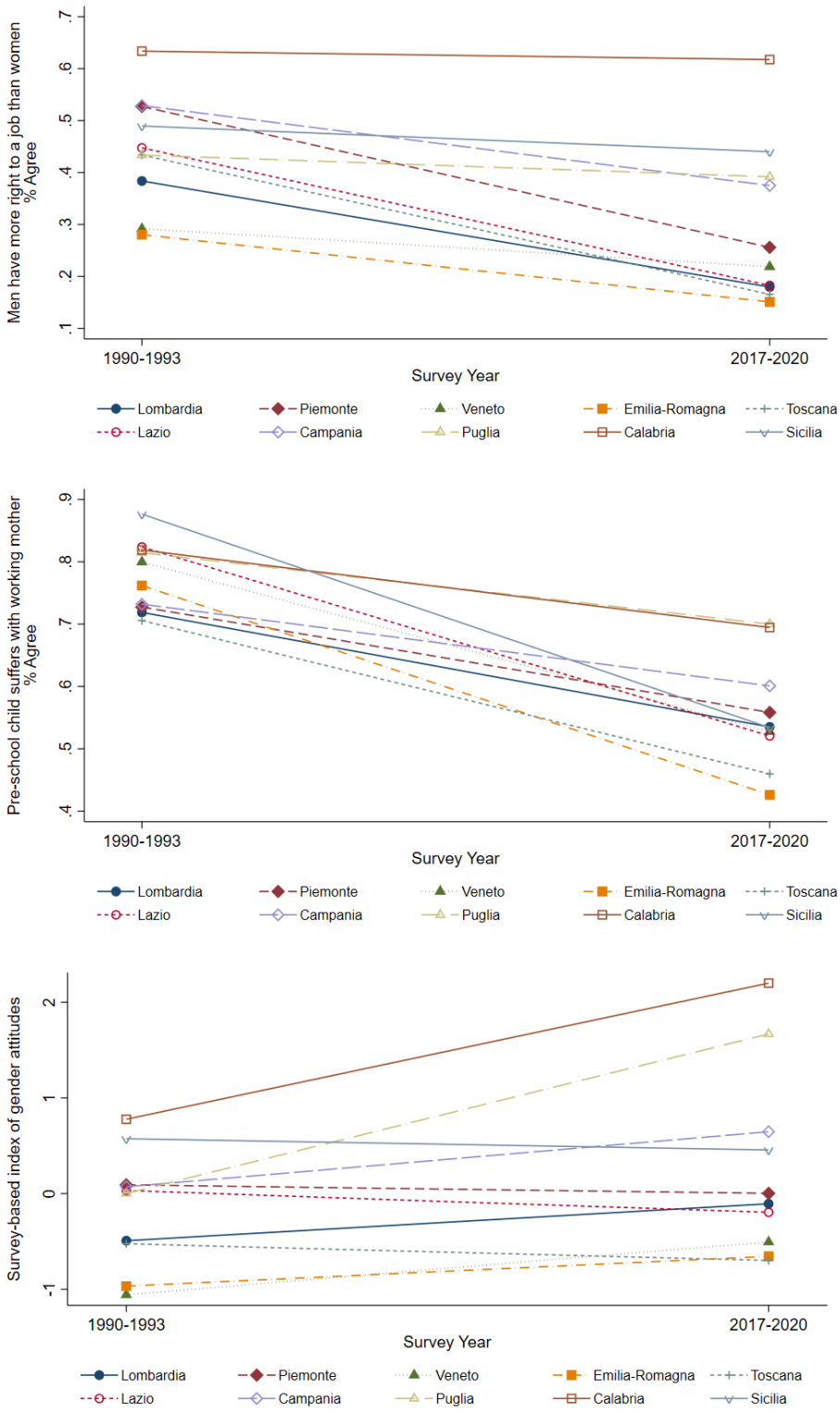
Notes: This figure illustrates the increase in the R^2 for the population-weighted regressions of the dependent variable (the *GNI*) on each considered predictor (indicated in the x-axis). Each bar represents the incremental contribution of a predictor to the explained variance in the *GNI*. For example, the first bar corresponds to the R^2 value when regressing the *GNI* solely on female labor force participation. The subsequent bars represent the increase in the R^2 when adding each additional predictor.

Figure B20: Gender norms and bill sponsorship—Alternative definitions of gender-conservative towns



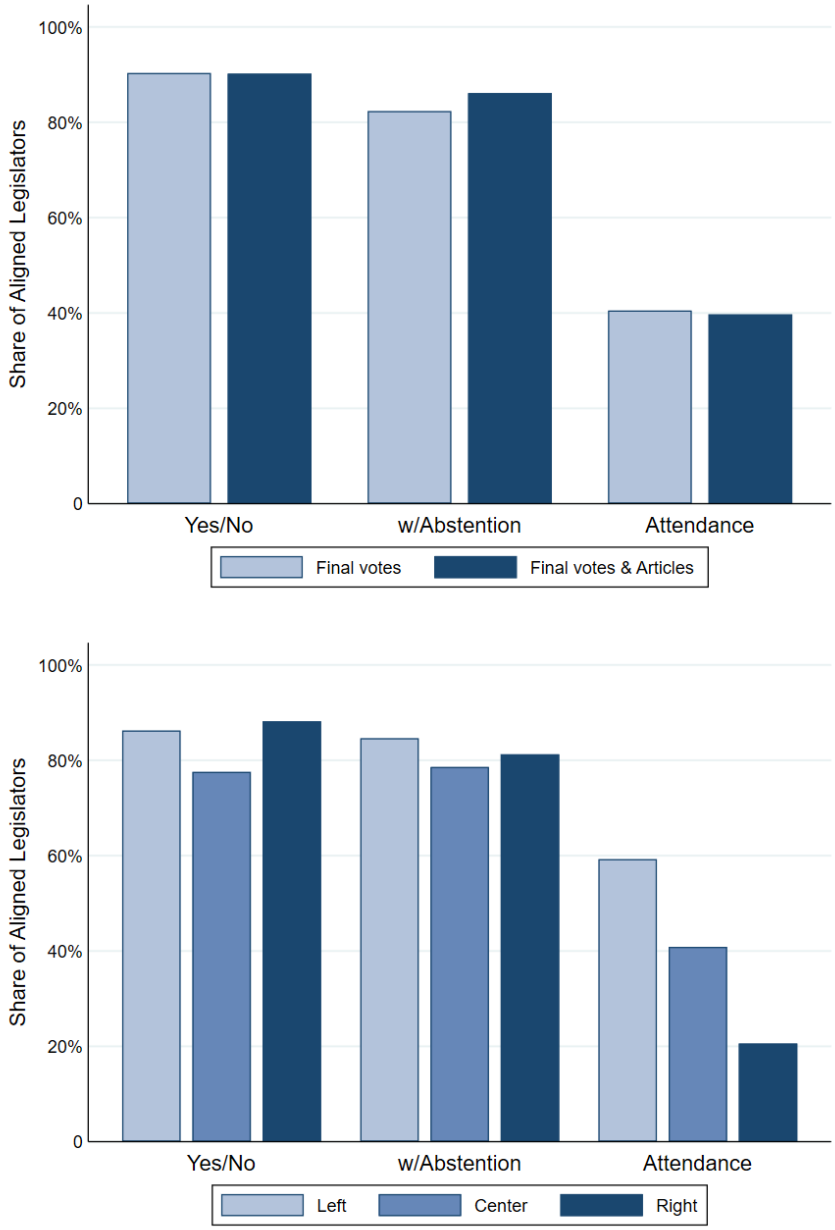
Notes: The Figure shows estimated β_3 coefficients from model 3, where a politician's number of bills sponsored on gender-related issues is regressed on a female dummy interacted with a dummy for being born in a gender-conservative municipality. Different cutoff levels are used to define conservative municipalities (as indicated on the x-axis). All regressions include individual controls and birth town controls interacted with the *female* dummy. Estimates are plotted alongside 95% confidence intervals. Robust standard errors are clustered at the birth town level.

Figure B21: Persistence of gender-related attitudes



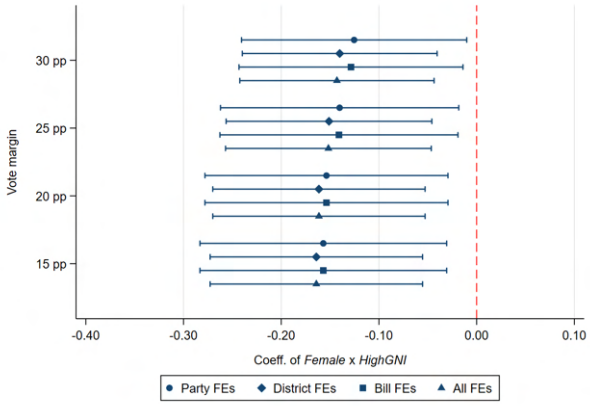
Notes: The graphs illustrate measures of gender attitudes across the top 10 most populous Italian regions for each survey year. The top graph uses the proportion of individuals agreeing with the statement "When jobs are scarce, men have more right to a job than women". The middle graph presents the percentage of individuals agreeing or strongly agreeing with the statement "Pre-school child suffers with a working mother". The bottom graph displays the survey-based index of gender attitudes, which is generated using Principal Component Analysis on attitude questions from each survey year. The attitude questions are listed in Appendix Table B7. The data is from the European Values Survey (EVS).

Figure B22: Party discipline in legislators' voting behavior

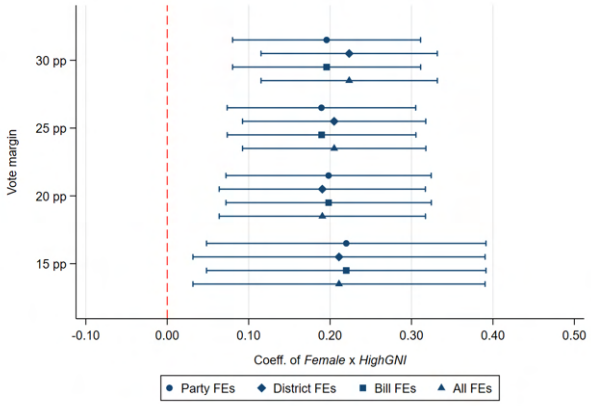


Notes: The graphs examine party discipline in voting behavior across different vote types (Panel A) and the three main party coalitions (Panel B). In both graphs, the vertical axis indicates the average share of legislators aligned with their party's voting line across voting sessions. We identify the party line as the most prevalent vote choice adopted by the legislators of that party. Party discipline is depicted in three groups of bars, depending on the legislators' voting behaviors considered: in the group of bars on the left ("Yes/No"), discipline is based on votes cast either in favor or against by legislators who participate in the vote; in the center ("w/Abstention"), it additionally accounts for legislators who abstain from voting; on the right ("Attendance"), it also includes legislators who do not attend the voting session. In the upper graph, party discipline is computed across all political coalitions for final passage votes only (light blue bars) and for both final passage votes and votes on individual articles (dark blue bars). The lower graph compares party discipline for the three main political coalitions, considering all votes.

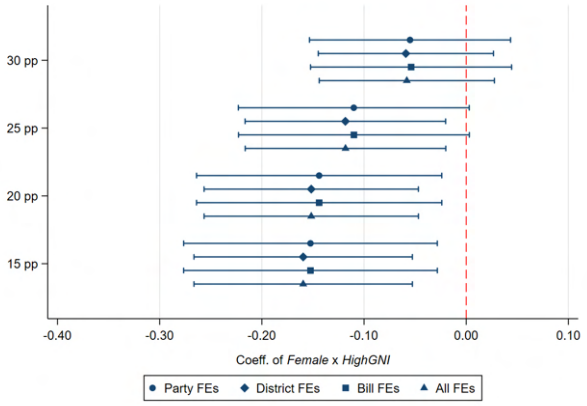
Figure B23: Gender norms and voting behavior



(A) Pro-gender equality bills



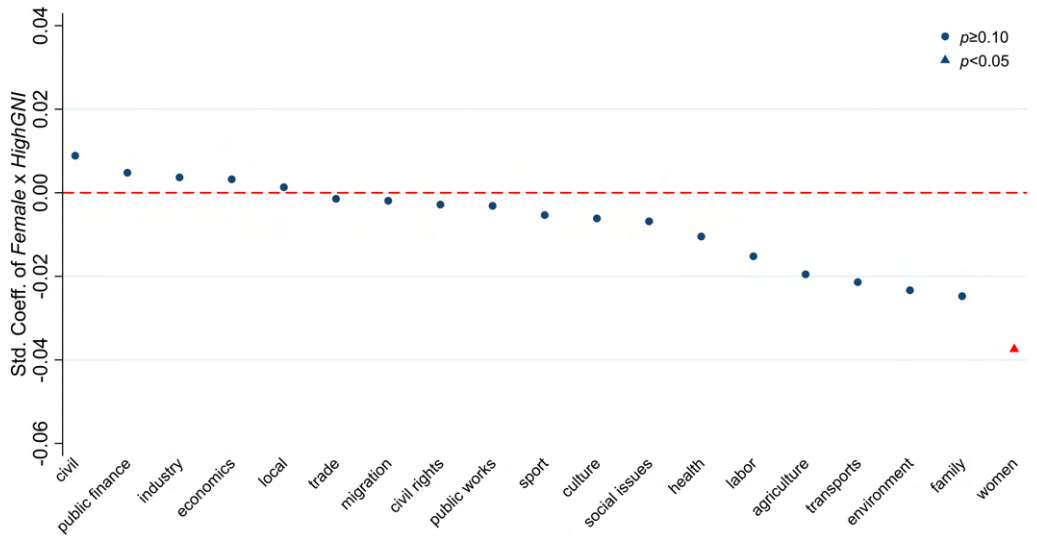
(B) Ambiguous bills



(C) All bills

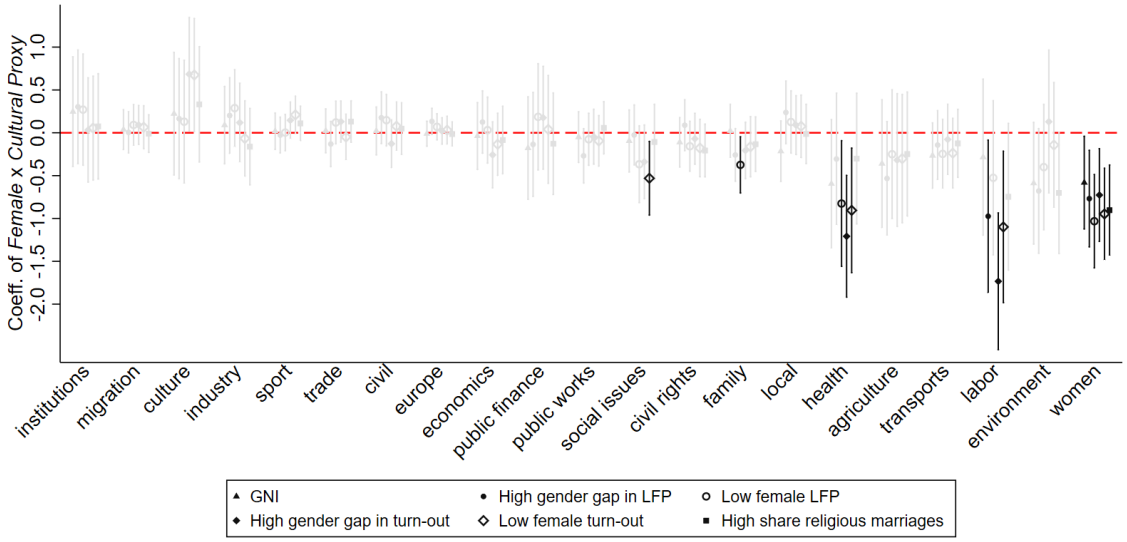
Notes: The graphs present estimates of β_3 coefficients from model 4, where we regress a binary indicator of a legislator's vote in favor of gender-related bills on a *female* dummy interacted with the *HighGNI* dummy for being born in a gender-conservative municipality. Panel A includes only bills explicitly promoting gender equality, Panel B includes only bills with ambiguous effects on gender equality, and Panel C includes all bills. In the latter case, the dependent variable is re-coded such that it indicates a legislator's pro-gender equality vote: it is coded as 1 for votes favoring pro-gender bills and for votes opposing ambiguous bills, and as 0 otherwise. Point estimates from separate regressions are shown, each considering a set of contested votes—those passed by a sufficiently narrow margin (as indicated on the y-axis). Additionally, we consider only final passage votes and votes on individual articles. The *HighGNI* takes value 1 for politicians from municipalities in the top tercile of the *GNI* index. All regressions include individual controls and birth town controls interacted with the *female* dummy, as well as various fixed effects (as detailed in the legend). All estimates are plotted alongside 90% confidence intervals. Robust standard errors are clustered at the birth town level.

Figure B24: Heterogeneity by bill topic—Above median *GNI*



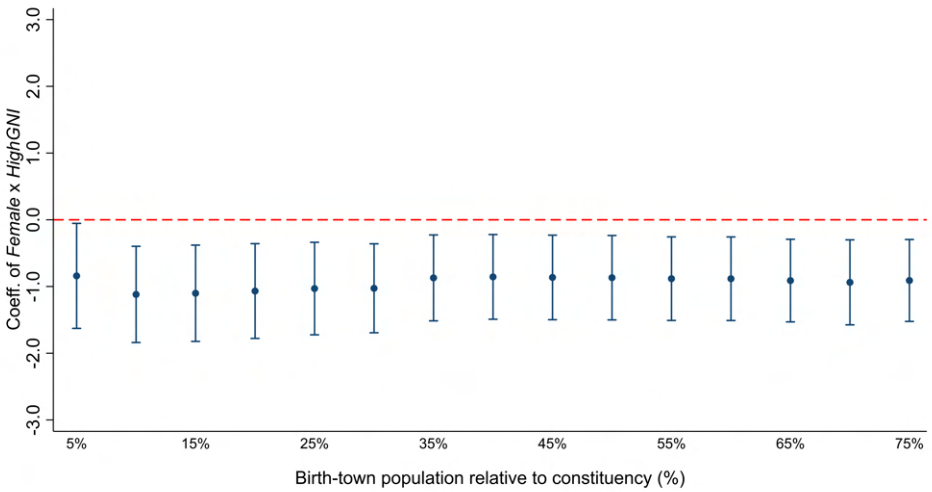
Notes: This figure presents estimated β_3 coefficients from counterparts of model 3. Each coefficient results from a separate regression, where the dependent variable is the number of bills a politician sponsored on a specific topic (as indicated on the x-axis). The variable $HighGNI$ is a dummy equal to 1 if the politician is born in a municipality ranking above the median in terms of conservativeness of gender norms, as measured by the birth town *GNI* (unlike our main analysis which uses the top tercile). Coefficient estimates are first standardized and then ranked by their magnitude. Triangles represent coefficient estimates that are statistically significant at the 10% level ($p < 0.1$), while circles represent coefficient estimates that are not statistically significant at that level. All regressions include individual controls, birth town controls interacted with the *female* dummy, the number of sponsored bills, along with district-by-legislature and party-by-legislature fixed effects. Standard errors are clustered at the birth town level.

Figure B25: Bill sponsorship and gender norms—All bill topics and gender norm proxies



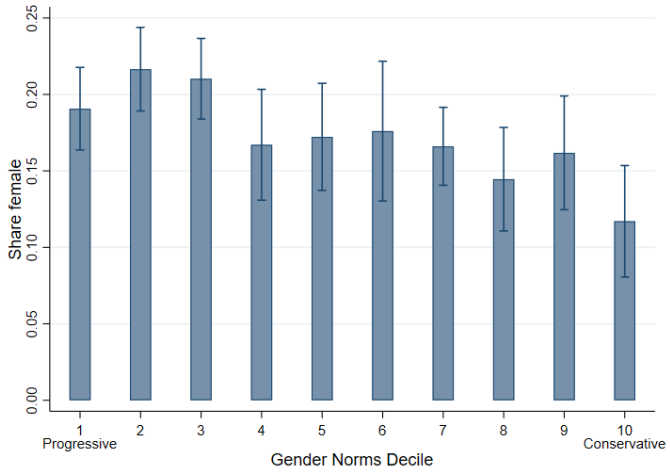
Notes: This figure presents estimated β_3 coefficients from counterparts of model 3 obtained from separately regressing a politician's number of bills sponsored in a given legislature on a specific topic (as indicated on the x-axis). For each bill topic, different gender norms measures are considered, whereby the female dummy is interacted with indicators for being born in a municipality ranking in the top tercile of the considered town-level characteristic (as indicated in the legend). All regressions include individual controls, birth town controls interacted with the *female* dummy, along with district-by-legislature and party-by-legislature fixed effects. Estimates are plotted alongside 95% confidence intervals. Standard errors are clustered at the birth town level. Statistically significant estimates are colored in black, while non-significant estimates are shown in light gray.

Figure B26: Gender norms and bill sponsorship—Politicians from smaller birth towns relative to their constituencies



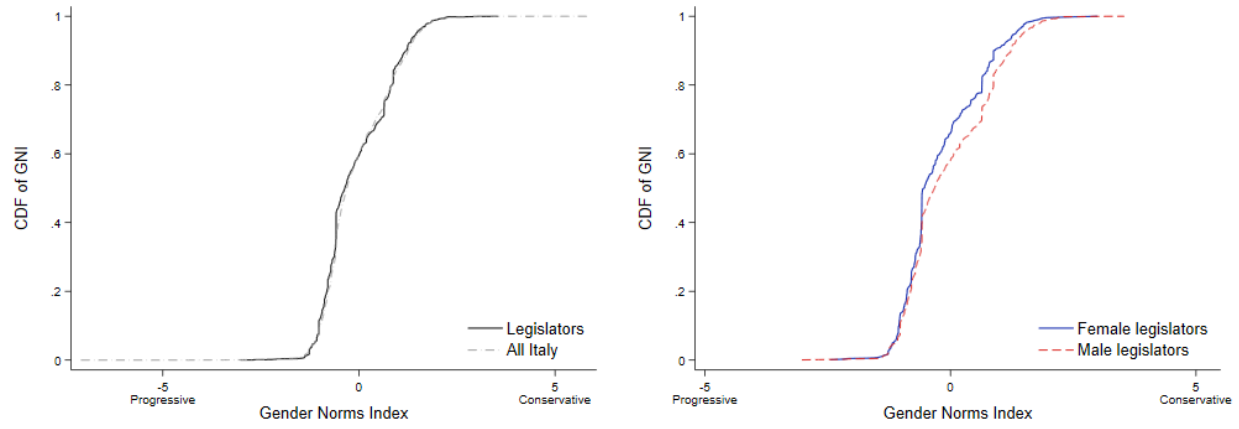
Notes: The Figure shows estimated β_3 coefficients from model 3, where a politician's number of bills sponsored on gender-related issues is regressed on a female dummy interacted with a dummy for being born in a gender-conservative municipality. Each point represents a separate regression, in which the sample is restricted to politicians whose birth town's population is at most the indicated percentage of their constituency's population, from 5% to 75% (as indicated on the x-axis). All regressions include individual controls and birth town controls interacted with the *female* dummy. Estimates are plotted alongside 90% confidence intervals. Robust standard errors are clustered at the birth town level.

Figure B27: Female share across *GNI* deciles



Notes: The histogram illustrates the share of female members of the Italian House of Representatives by decile of the distribution of gender norms in the municipality of birth, as measured by our municipal-level *GNI*. 95% confidence intervals are also displayed. Low values of the *GNI* indicate gender progressive municipalities, while high values of the *GNI* correspond to more conservative ones.

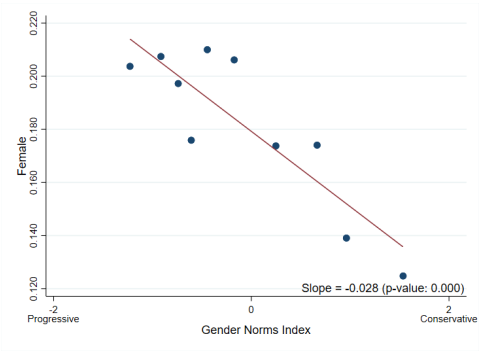
Figure B28: Cumulative distribution of *GNI*



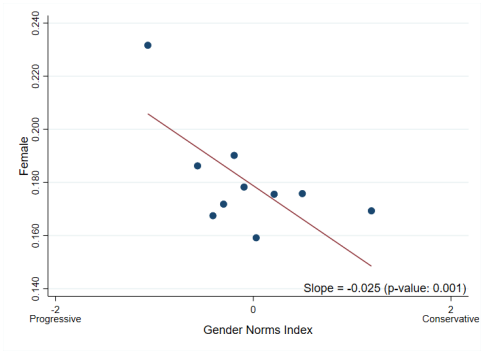
(A) Cumulative distribution of *GNI* (B) Cumulative distribution of *GNI* by gender

Notes: Panel A compares the population-weighted cumulative distribution of the *GNI* across all Italian municipalities (solid line) and politicians' hometowns (dash-dotted line). Panel B presents the cumulative *GNI* distribution among legislators by gender. The blue solid line (red dashed line) refers to female (male) legislators. Recall that lower *GNI* values indicate gender progressive municipalities, while higher values correspond to more conservative ones.

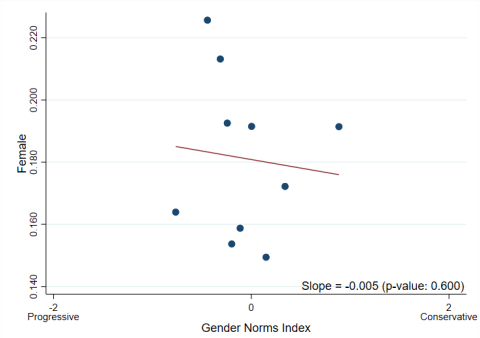
Figure B29: Female share and gender norms in municipality of birth with controls



(A) No fixed effects



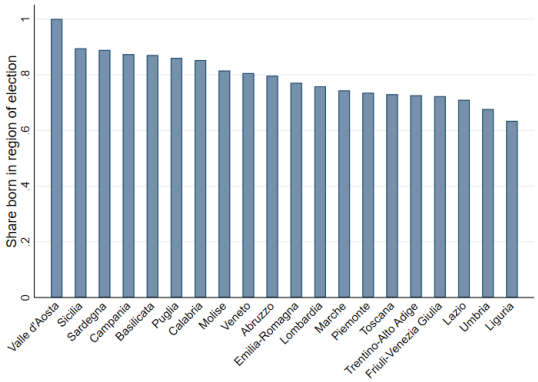
(B) Electoral district fixed effects



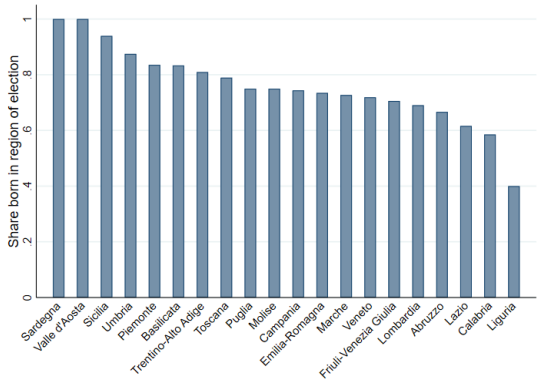
(C) Region of birth fixed effects

Notes: The Figures display the binned scatter plots obtained by regressing the probability for a member of a Parliament of being a female against the *GNI* in her municipality of birth. Panel (A) only controls for individual characteristics. Panels (B) and (C) add fixed effects for the electoral district and region of birth, respectively.

Figure B30: Legislators' election location and place of birth



(A) Males



(B) Females

Notes: The Figures display the proportion of politicians who were born in the same region where they are elected. Panel A shows the histogram for male politicians, while Panel B represents the histogram for female ones. The regions of election are displayed on the x-axis, ranked by their corresponding shares.

Table B1: Political party classification

Group	Party names
Left-Wing	Alleanza Verdi e Sinistra, Articolo 1 – Movimento Democratico e Progressista – Liberi e Uguali, Comunisti Italiani, Democratici – L'Ulivo, Democrazia Solidale – Centro Democratico, DP – Comunisti, Gruppo Comunista – PDS, I Democratici, La Margherita, DL – L'Ulivo, Lista Comunista, Movimento per la Democrazia: La Rete, Partito Democratico, Partito Democratico – Italia Democratica e Progressista, Partito Popolare Italiano, Partito Socialista Democratico Italiano, Partito Socialista Italiano, Popolari Democratici – L'Ulivo, Progressisti – Federativo, Rifondazione Comunista, Rifondazione Comunista – Progressisti, Rifondazione Comunista – Sinistra Europea, Sinistra Democratica per il Socialismo Europeo, Sinistra Indipendente, Sinistra Italiana – Sinistra Ecologia Libertà – Possibile – Liberi e Uguali, Socialisti e Radicali – RNP, Verde, Verdi
Centrist	Centro Cristiano Democratico (*before 1994*), Civici e Innovatori, DCA – Democrazia Cristiana per le Autonomie – Nuovo PSI, Democratico Cristiano, Democratico Cristiano – Partito Popolare Italiano, Democrazia Cristiana, Gruppo Misto, Insieme per il Futuro – Impegno Civico, Italia dei Valori, Italia Viva – Italia C'è, Italia Viva, Lega Italiana Federalista, Lega Nord (*before 2001*), Lega Nord Padania (*before 2001*), Movimento 5 Stelle, Noi con l'Italia – Scelta Civica per l'Italia – MAIE, Partito Liberale Italiano, Popolari – UDEUR, Repubblicano, Rinnovamento Italiano, UDR – Unione Democratica per la Repubblica, Unione Democratica per l'Europa
Right-wing	Alleanza Nazionale, Alternativa Popolare – Centristi per l'Europa – NCD – Noi con l'Italia, Centro Cristiano Democratico (*after 1994*), Coraggio Italia, Federalisti e Liberaldemocratici, Forza Italia, Forza Italia – Berlusconi Presidente, Forza Italia – Berlusconi Presidente – PPE, Forza Italia – Il Popolo della Libertà – Berlusconi Presidente, Fratelli d'Italia, Fratelli d'Italia – Alleanza Nazionale, Futuro e Libertà per il Terzo Polo, Lega – Salvini Premier, Lega Nord e Autonomie – Lega dei Popoli – Noi con Salvini, Lega Nord Federazione Padana (*after 2001*), Lega Nord Padania (*after 2001*), Movimento Sociale Italiano – Destra Nazionale, MSI – Destra Nazionale, Noi Moderati (Noi con l'Italia, Coraggio Italia, UDC, Italia al Centro) – MAIE, Popolo della Libertà, Popolo e Territorio (Noi Sud – Libertà ed Autonomia, Popolari d'Italia Domani – PID, Movimento di Responsabilità Nazionale – MRN, Azione Popolare, Alleanza di Centro – ADC, Intesa Popolare), Unione dei Democratici Cristiani e dei Democratici di Centro, Unione dei Centristi per il Terzo Polo

Notes: This table classifies Italian political parties registered with the parliamentary groups of the House of Representatives into three categories following the classification in Pinto (2023). Given that our analysis covers a more extended historical period, our list includes additional parties and parliamentary groups that we manually assign to one of the three political alignments based on their political coalition affiliation during elections and official statements within the party statutes.

Table B2: Survey-based and Facebook indices for gender norms

Region	Macro-Region	Survey-based Gender Values Index (*GVI*)	Facebook-based Gender Norms Index (*GNI*)
Friuli-Venezia Giulia	North-East	-2.47	-1.74
Sardinia	Islands	-1.10	-0.44
Tuscany	Center	-0.70	-0.57
Emilia-Romagna	North-East	-0.66	-0.84
Marche	Center	-0.62	-0.33
Veneto	North-East	-0.51	-0.79
Liguria	North-West	-0.28	-0.94
Lazio	Center	-0.20	-0.44
Lombardy	North-West	-0.11	-0.50
Piedmont	North-West	0.00	-0.45
Trentino-Alto Adige	North-East	0.06	-0.94
Molise	South	0.11	1.01
Basilicata	South	0.44	1.22
Sicily	Islands	0.46	0.92
Umbria	Center	0.49	-0.09
Abruzzo	South	0.55	0.30
Campania	South	0.65	1.56
Apulia	South	1.67	1.35
Calabria	South	2.20	1.70

Notes: The Table displays the values of the survey-based and Facebook indices of gender norms across Italian regions, the *GVI* and *GNI*, respectively. The *GNI* is generated by estimating the selected model on the Facebook gender-related interest vectors of Italian municipalities. The model is selected using a machine learning approach to predict the benchmark *GVI* using interest vectors at the regional level (see Section 4). The survey-based index of gender norms (the *GVI*) is generated by performing Principal Component Analysis on the five questions listed in Appendix Figure B5 from the European Values Survey. Regions are ordered according to their *GVI* value (from the most progressive to the most conservative).

Table B3: Between and within variation in municipal gender norms

Variable		Mean	Std. Dev.	Obs.
		Panel A. 5 Macro-areas		
GNI	Overall	0	1	N = 7,901
	Between		0.612	n = 5
	Within		0.824	$\overline{n}$ = 1,580.2
		Panel B. Regions		
GNI	Overall	0	1	N = 7,901
	Between		0.659	n = 20
	Within		0.791	$\overline{n}$ =395.05
		Panel C. Provinces		
GNI	Overall	0	1	N = 7,901
	Between		0.687	n = 107
	Within		0.755	$\overline{n}$ =73.84
		Panel D. CZs		
GNI	Overall	0	1	N = 7,901
	Between		0.788	n = 610
	Within		0.719	$\overline{n}$ =12.95

Notes: The Table shows the decomposition of the variation in gender norms across municipalities in Italy, as measured by the municipality-level *GNI*. The sample includes all municipalities ($N = 7,901$). The overall variation is the standard deviation of the *GNI* across municipalities in the whole Italian territory, which is always given by one, since the *GNI* is standardized. The between variation measures how much the *GNI* varies across areas, after estimating area-level averages. That is, after computing the area-level average *GNI* for every area, the standard deviation of these averages is the between variation. The within variation measures how much the *GNI* varies across municipalities within areas, while ignoring all the variation between areas. That is, after computing the standard deviation of the *GNI* within each area, the average of these standard deviations is the within variation. Each panel considers a different set of areas. Panel (A) compares the five macro-areas, namely North-West, North-East, Center, South, Islands. Panel (B) compares the twenty administrative regions. Panel (C) the 107 provinces. Panel (D) the 610 commuting zones (CZs), which are based on daily commutes reports from ISTAT.

Table B4: Summary statistics for House of Representatives members by gender

	Female politicians			Male politicians			Difference
	N	Mean	S.D.	N	Mean	S.D.	p-value
Individual characteristics:							
Age	1,021	45.230	10.030	4,614	49.530	9.840	0.000
College degree	1,021	0.650	0.480	4,614	0.620	0.480	0.150
Freshman	1,021	0.610	0.490	4,614	0.500	0.500	0.000
Tenure	1,021	2.290	1.490	4,614	2.790	1.840	0.000
Party affiliation							
Left-wing	1,021	0.500	0.500	4,614	0.370	0.480	0.000
Centrist	1,021	0.230	0.420	4,614	0.280	0.450	0.000
Right-wing	1,021	0.280	0.450	4,614	0.350	0.480	0.000
District of election (macro-area)							
North	1,021	0.490	0.500	4,614	0.440	0.500	0.000
Center	1,021	0.220	0.410	4,614	0.190	0.390	0.020
South	1,021	0.290	0.450	4,614	0.370	0.480	0.000
Municipality of birth (macro-area)							
North	1,021	0.460	0.500	4,614	0.410	0.490	0.000
Center	1,021	0.250	0.430	4,614	0.190	0.390	0.000
South	1,021	0.290	0.460	4,614	0.410	0.490	0.000
GNI	1,021	-0.200	0.800	4,614	-0.040	0.880	0.000
Legislative activity:							
N. bills	1,021	84.710	72.900	4,614	69.010	56.940	0.000
N. gender-related bills	1,021	6.550	5.910	4,614	2.380	2.670	0.000

Notes: This table presents summary statistics for politicians elected to the Italian House of Representatives between 1987 and 2022, corresponding to the Legislatures X to XVIII, separately by gender. All variables are indicator variables, with the exception of *Age* (in years), *Tenure* (in legislative terms), *GNI*, *N. bills*, and *N. gender-related bills*. *Freshman* is a dummy indicating that the politician's previous parliamentary tenure is zero.*GNI* refers to the Facebook-based *Gender Norms Index* in the politician's municipality of birth. Low values of the *GNI* indicate more progressive municipalities, while high values of the *GNI* correspond to more conservative ones.

Table B5: Examples of region-level interest ratios (IR)

	Bottom region			Top region		
	s_i	$\sum_i s_i$	IR_i (1)/(2)	s_i	$\sum_i s_i$	IR_i (3)/(4)
Interest i	(1)	(2)	(3)	(4)	(5)	(6)
Marriage	160,950	7,585,700	2.12%	1,100,000	38,860,248	2.83%
Divorce	1,600	1,114,500	0.14%	77,450	35,012,248	0.22%
Pregnancy	291,200	78,616,896	0.37%	249,650	48,615,848	0.51%
Adoption	75,200	5,061,500	1.49%	282,050	14,606,650	1.93%
Breastfeeding	3,050	1,114,500	0.27%	274,450	61,825,600	0.44%
Childcare	111,100	5,061,500	2.20%	2,200,000	78,616,896	2.80%
Femininity	6,100	7,585,700	0.08%	13,850	12,087,450	0.11%
Feminism	96,850	48,615,848	0.20%	39,000	14,606,650	0.27%

Notes: This Table presents numerical examples for the considered interests, along with their corresponding interest ratios (defined in equation 1) in the regions with the lowest and highest ratio values (displayed in columns 3 and 6, respectively). Additionally, we report the audience size of the interest (columns 1 and 4) and total number of interest signals expressed in the region (columns 2 and 5), corresponding to the numerator and denominator of the ratio, respectively.

Table B6: Gender norms and bill sponsorship—Above median *GNI*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dep. Var.:	*Number of bills sponsored on gender issues*						
Female	4.168***	4.513***	4.413***	6.634***	6.331***	6.799***	7.149***
	(0.197)	(0.253)	(0.253)	(1.813)	(1.670)	(1.849)	(1.763)
Female × *HighGNI*		-0.907**	-0.811**	-1.119**	-1.076**	-0.868*	-0.989**
		(0.385)	(0.374)	(0.462)	(0.462)	(0.483)	(0.480)
HighGNI		0.127	0.082	0.077	0.142	0.051	0.073
		(0.097)	(0.095)	(0.097)	(0.095)	(0.150)	(0.141)
Age			0.010**	0.009**	-0.002	0.005	-0.004
			(0.004)	(0.005)	(0.005)	(0.005)	(0.005)
College degree			-1.380	-1.429	-3.381***	-2.769***	-3.716***
			(1.132)	(1.078)	(0.706)	(0.780)	(0.770)
Freshman			-0.422***	-0.449***	-0.407***	-0.334***	-0.463***
			(0.107)	(0.108)	(0.094)	(0.108)	(0.101)
Tenure			-0.197***	-0.202***	-0.171***	-0.160***	-0.182***
			(0.031)	(0.031)	(0.031)	(0.032)	(0.031)
Center coalition			-0.956***	-0.947***		-0.320***	
			(0.125)	(0.123)		(0.123)	
Right coalition			-0.142	-0.142		-0.113	
			(0.129)	(0.132)		(0.142)	
Individual Controls			Yes	Yes	Yes	Yes	Yes
Female × Birth town controls				Yes	Yes	Yes	Yes
Party-by-legislature fixed effect					Yes		Yes
District-by-legislature fixed effect						Yes	Yes
Observations	5,635	5,635	5,634	5,498	5,498	5,482	5,482
Clusters	1,220	1,220	1,220	1,170	1,170	1,168	1,168
Adj. R-squared	0.17	0.18	0.21	0.20	0.32	0.29	0.33
Mean Outcome	3.140	3.140	3.140	3.148	3.148	3.150	3.150

Notes: This table reports the results of OLS regressions where the dependent variable measures the number of bills sponsored on gender-related issues by a politician in a given legislature. *Female* is a dummy equal to 1 if the politician is a woman. *HighGNI* is a dummy equal to 1 if the politician is born in a municipality ranking above the median in terms of conservativeness of gender norms, as measured by the birth town *GNI* (unlike our main analysis which uses the top tercile). Individual controls include the politician's age and parliamentary tenure (in terms of legislative terms), as well as indicators for freshman status, education level, previous occupation, and affiliation with left, center or right political coalitions. Birth town controls are all interacted with the *female* dummy and include the municipality's population, per-capita income, the share of college graduates, and a dummy for province capitals. The sample includes all members of the Italian House of Representative elected between 1987 and 2022, corresponding to Legislatures X to XVIII. Robust standard errors clustered at the birth town level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B7: Survey-based gender norms indices over time—Attitude questions

Survey waves	Questions
(1) EVS 1990–1993	Men have more right to a job than women Pre-school child suffers with working mother
(2) EVS 1999–2001	Men have more right to a job than women Pre-school child suffers with working mother
(3) EVS 2008–2010	Men have more right to a job than women Pre-school child suffers with working mother
(4) EVS 2017–2020	Men have more right to a job than women Pre-school child suffers with working mother University is more important for boys Men make better political leaders Men make better business executives

Notes: This table lists attitude questions used to construct gender norms indices based on survey data across multiple waves from the European Values Survey (EVS). Answers to the question "Men have more right to a job than women" are coded: 1: Disagree; 2: Neither agree nor disagree; 3: Agree. Answers to the other questions are coded: 1: Strongly disagree; 2: Disagree; 3: Agree; 4: Agree strongly.

Table B8: Correlation matrix for survey-based gender norms indices over time

	(1)	(2)	(3)	(4)
(1) EVS 1990–1993 Index	1.000			
(2) EVS 1999–2001 Index	**0.811** (0.000)	1.000		
(3) EVS 2008–2010 Index	**0.574** (0.010)	**0.670** (0.002)	1.000	
(4) EVS 2017–2020 Index	**0.711** (0.001)	**0.642** (0.003)	**0.663** (0.002)	1.000

Notes: This table presents region-level correlations for gender norms indices based on survey data across multiple waves. The indices are generated by performing Principal Component Analysis applied to gender role attitude questions from the European Values Survey (EVS). Pairwise Spearman's rank correlation coefficients are displayed, together with the corresponding p-value (in parentheses). Coefficients in bold are statistically significant at conventional levels. Four EVS waves are considered: (1) 1990–1993; (2) 1999–2001; (3) 2008–2010; and (4) 2017–2020. Attitude questions used in each wave are listed in Appendix Table B7.

Table B9: Gender norms and bill sponsorship—Younger politicians

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.:	*Number of bills sponsored on gender issues*					
Female	6.257***	7.105***	6.322***	7.236***	6.655***	7.817***
	(1.573)	(1.723)	(1.641)	(1.739)	(1.817)	(1.959)
Female × *HighGNI*	-0.998**	-0.844*	-1.060**	-0.894*	-1.141**	-0.906
	(0.456)	(0.475)	(0.486)	(0.513)	(0.568)	(0.611)
HighGNI	0.033	-0.106	0.047	-0.161	0.063	-0.219
	(0.103)	(0.169)	(0.111)	(0.186)	(0.141)	(0.250)
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
Female × Birth town controls	Yes	Yes	Yes	Yes	Yes	Yes
Party-by-legislature fixed effect	Yes		Yes		Yes	
District-by-legislature fixed effect		Yes		Yes		Yes
Age range	Age < 60	Age < 60	Age < 55	Age < 55	Age < 50	Age < 50
Observations	4,688	4,672	3,904	3,889	2,949	2,932
Clusters	1,058	1,056	934	931	752	747
Adj. R-squared	0.32	0.28	0.32	0.28	0.30	0.27
Mean Outcome	3.207	3.209	3.207	3.211	3.166	3.171

Notes: This table reports the results of OLS regressions analyzing the number of bills sponsored on gender-related issues by politicians in the Italian House of Representatives (1987 to 2022), considering different age groups. *Female* is a dummy variable equal to 1 if the politician is a woman, while *HighGNI* is a dummy equal to 1 if the politician is born in a gender-conservative municipality, namely in a municipality in the top tercile in terms of conservativeness of gender norms, as measured by the birth town *GNI*. In Columns (1) and (2), the sample is restricted to politicians younger than 60 years old. Columns (3) and (4) include only politicians younger than 55 years old. Lastly, Columns (5) and (6) include only those younger than 50 years old. All specifications include individual controls, birth town controls interacted with the *female* dummy, and either party-by-legislature (odd-numbered columns) or district-by-legislature fixed effects (even-numbered columns). Robust standard errors clustered at the birth town level are displayed in parentheses.

Table B10: Gender norms and bill sponsorship—Gender gap in LFP as gender norm proxy

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.:	*Number of bills sponsored on gender issues*					
Female	4.168***	4.433***	4.324***	5.670***	5.426***	6.154***
	(0.197)	(0.233)	(0.233)	(1.730)	(1.541)	(1.723)
Female × *HighLFPgap*		-0.982**	-0.809**	-1.126**	-1.069**	-0.943**
		(0.401)	(0.391)	(0.461)	(0.452)	(0.477)
HighLFPgap		0.176*	0.132	0.118	0.185*	0.206
		(0.104)	(0.102)	(0.104)	(0.099)	(0.144)
Age			0.010**	0.009**	-0.002	0.005
			(0.004)	(0.005)	(0.005)	(0.005)
College degree			-1.411	-1.400	-3.348***	-2.760***
			(1.145)	(1.071)	(0.701)	(0.763)
Freshman			-0.421***	-0.446***	-0.404***	-0.330***
			(0.107)	(0.108)	(0.094)	(0.108)
Tenure			-0.197***	-0.202***	-0.170***	-0.160***
			(0.031)	(0.031)	(0.031)	(0.032)
Center coalition			-0.958***	-0.946***		-0.320***
			(0.125)	(0.125)		(0.123)
Right coalition			-0.138	-0.138		-0.114
			(0.129)	(0.132)		(0.141)
Individual Controls			Yes	Yes	Yes	Yes
Female × Birth town controls				Yes	Yes	Yes
Party-by-legislature fixed effect					Yes	
District-by-legislature fixed effect						Yes
Observations	5,635	5,631	5,630	5,498	5,498	5,471
Clusters	1,220	1,217	1,217	1,170	1,170	1,168
Adj. R-squared	0.17	0.18	0.56	0.56	0.61	0.59
Mean Outcome	3.140	3.142	3.142	3.148	3.148	3.144

Notes: This table reports the results of OLS regressions where the dependent variable measures the number of bills sponsored on gender-related issues by a politician in a given legislature. *Female* is a dummy equal to 1 if the politician is a woman. *HighLFPgap* is a dummy equal to 1 if the politician is born in a gender-conservative municipality. In particular, a municipality is classified as gender conservative if it falls within the top tercile of gender gap in labor force participation, which serves as an alternative proxy for measuring the conservativeness of gender norms. Individual controls include the politician's age and parliamentary tenure (in terms of legislative terms), as well as indicators for freshman status, education level, previous occupation, and affiliation with left, center or right political coalitions. Birth town controls are all interacted with the *female* dummy and include the municipality's population, per-capita income, the share of college graduates, and a dummy for province capitals. The sample includes all members of the Italian House of Representative elected between 1987 and 2022, corresponding to Legislatures X to XVIII. Robust standard errors clustered at the birth town level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B11: Gender norms and bill sponsorship—Adding interactions with other birth town characteristics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Dep. Var.:	*Number of bills sponsored on gender issues*									
Female × HighGNI	-0.829**	-0.638*	-0.830**	-0.607	-0.918**	-0.825*	-1.222***	-1.052**	-1.010***	-0.855**
	(0.355)	(0.380)	(0.369)	(0.394)	(0.407)	(0.427)	(0.416)	(0.439)	(0.380)	(0.399)
Female × Capital city	0.066	-0.170								
	(0.366)	(0.374)								
Female × Population			-0.003	-0.007						
			(0.013)	(0.015)						
Female × GDP per capita					-0.003	-0.006				
					(0.004)	(0.004)				
Female × Less than High School							5.203*	5.953**		
							(2.872)	(2.941)		
Female × Share College									-3.602	-4.959*
									(2.457)	(2.564)
Ind. char.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Party-by-legislature fixed effect	Yes		Yes		Yes		Yes		Yes	
District-by-legislature fixed effect		Yes		Yes		Yes		Yes		Yes
Observations	5,634	5,618	5,596	5,580	5,534	5,518	5,634	5,618	5,634	5,618
Clusters	1,220	1,218	1,207	1,205	1,181	1,179	1,220	1,218	1,220	1,218
Adj. R-squared	0.32	0.29	0.32	0.29	0.32	0.29	0.32	0.29	0.32	0.29
Mean Outcome	3.140	3.142	3.142	3.144	3.146	3.148	3.140	3.142	3.140	3.142

Notes: This table displays estimates obtained from regressing a politician's number of bills sponsored on gender-related issues on a female dummy interacted with an indicator for being born in a conservative town, together with individual- and municipal-level controls and fixed effects. Every two columns we add a birth town variable, all interacted with the *female* dummy (as well as with the other individual characteristics), namely: an indicator for capital cities (Columns 1-2), the municipality's population (Columns 3-4), per-capita income (Columns 5-6), the share of low-educated individuals (Columns 7-8), and the share of college graduates (Columns 10-11). All regressions control for other individual characteristics, including the politician's age and parliamentary tenure (in terms of legislative terms), as well as indicators for freshman status, education level, previous occupation, and affiliation with left, center or right political coalitions. Odd-numbered columns include party-by-legislature fixed effects. Even-numbered columns include district-by-legislature fixed effects. The dependent variable measures the number of bills sponsored on gender-related issues by a politician in a given legislature. *HighGNI* is a dummy equal to 1 if the politician is born in a gender-conservative municipality, namely in a municipality in the top tercile in terms of conservativeness of gender norms, as measured by the birth town *GNI*. The sample includes all members of the Italian House of Representative elected between 1987 and 2022, corresponding to Legislatures X to XVIII. Robust standard errors clustered at the birth town level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B12: Gender norms and bill sponsorship—Alternative clustering

Dep. Var.:	*Number of bills sponsored on gender issues*		
Coeff. *Female* × *HighGNI*	-1.097	-0.962	-1.008
Cluster at town level	(0.420)	(0.439)	(0.440)
	[0.009]	[0.029]	[0.022]
Cluster at legislator level	(0.446)	(0.472)	(0.462)
	[0.014]	[0.042]	[0.029]
Two-way clustering (town×legislator)	(0.420)	(0.439)	(0.440)
	[0.009]	[0.029]	[0.022]
Cluster at district level	(0.517)	(0.540)	(0.544)
	[0.042]	[0.078]	[0.067]
Individual Controls	Yes	Yes	Yes
Female × Birth town controls	Yes	Yes	Yes
Party-by-legislature fixed effect	Yes		Yes
District-by-legislature fixed effect		Yes	Yes

Notes: This table presents standard errors (in brackets) and p-values (in square brackets) from OLS regressions shown in Table 2 (Columns 5, 6, and 7), where the dependent variable measures the number of bills sponsored on gender-related issues by a politician in a given legislature. The coefficient of interest is the interaction between the *Female* and *HighGNI* dummies, displayed in the first row. Robust standard errors are clustered at various levels: birth town (as in the main analysis), individual legislator, town × legislator, and electoral district. All specifications include individual controls, birth town controls interacted with the *Female* dummy, and the specified fixed effects. The sample includes all members of the Italian House of Representatives elected between 1987 and 2022, corresponding to Legislatures X to XVIII.

Table B13: Gender norms and voting behavior

Dep. Var.:	*Vote in favor of gender-equality*					
	(1)	(2)	(3)	(4)	(5)	(6)
Female	0.027	0.158	0.158	0.158	0.281	0.281
	(0.026)	(0.194)	(0.194)	(0.194)	(0.211)	(0.211)
Female × *HighGNI*	-0.127	-0.144**	-0.144**	-0.144**	-0.152**	-0.152**
	(0.090)	(0.073)	(0.073)	(0.073)	(0.064)	(0.064)
HighGNI	0.029	0.036	0.036	0.036	0.058	0.058
	(0.028)	(0.028)	(0.028)	(0.028)	(0.040)	(0.040)
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
Female × Birth town controls		Yes	Yes	Yes	Yes	Yes
Bill fixed effect			Yes	Yes	Yes	Yes
Party fixed effect				Yes		Yes
District fixed effect					Yes	Yes
Observations	8,065	7,883	7,883	7,883	7,883	7,883
Adj. R-squared	0.45	0.46	0.46	0.46	0.48	0.48
Mean outcome	0.425	0.427	0.427	0.427	0.427	0.427

Notes: This table reports the results of OLS regressions obtained from regressing legislators' voting behavior on gender-related bills. The dependent variable is an indicator for expressing a vote in favor of gender equality policies. Specifically, the dependent variable is re-coded such that it takes value 1 when the vote is in favor of a pro-gender bill or against a gender-ambiguous bill, and 0 otherwise. *Female* is a dummy equal to 1 if the politician is a woman. *HighGNI* is a dummy equal to 1 if the politician is born in a gender-conservative municipality, namely in a municipality in the top tercile in terms of conservativeness of gender norms, as measured by the birth town *GNI*. Individual controls include the politician's age and parliamentary tenure (in terms of legislative terms), as well as indicators for freshman status, education level, previous occupation, and affiliation with left, center or right political coalitions. Birth town controls are all interacted with the *female* dummy and include the municipality's population, per-capita income, the share of college graduates, and a dummy for province capitals. The sample includes contested voting sessions—those in which the margin of votes by which the law is passed is less than 20 percentage points—of both final passage votes and votes on individual articles. Robust standard errors clustered at the birth town level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B14: Gender norms and bill sponsorship on non-gender topics—Party fixed effects

Dep. Var.:	*Number of bills sponsored on considered topic*									
	Civil rights		Labor		Family		Education		Health	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Female	2.041***	1.160	1.642***	5.028*	2.050***	2.212**	1.075***	1.012	2.450***	5.080***
	(0.190)	(0.957)	(0.386)	(2.581)	(0.156)	(1.004)	(0.283)	(1.160)	(0.313)	(1.856)
Female × *HighGNI*	-0.212	-0.264	-0.632	-1.037*	-0.118	-0.213	0.131	0.262	0.093	-0.395
	(0.292)	(0.238)	(0.699)	(0.595)	(0.252)	(0.262)	(0.437)	(0.444)	(0.504)	(0.462)
HighGNI	0.111	0.056	0.343*	0.233	0.128	0.081	0.532***	0.353***	0.465***	0.392***
	(0.110)	(0.082)	(0.202)	(0.203)	(0.096)	(0.086)	(0.135)	(0.136)	(0.161)	(0.143)
Individual Controls		Yes		Yes		Yes		Yes		Yes
Female × Birth town controls		Yes		Yes		Yes		Yes		Yes
Party-by-legislature fixed effect		Yes		Yes		Yes		Yes		Yes
Observations	5,635	5,498	5,635	5,498	5,635	5,498	5,635	5,498	5,635	5,498
Clusters	1,220	1,170	1,220	1,170	1,220	1,170	1,220	1,170	1,220	1,170
Adj. R-squared	0.50	0.66	0.71	0.78	0.59	0.68	0.52	0.60	0.69	0.75
Mean Outcome	3.840	3.853	11.444	11.442	3.681	3.679	4.598	4.606	7.820	7.818

Notes: This table reports the results of OLS regressions where the dependent variable measures a politician's number of bills sponsored on a specific topic, as indicated in each respective column. *Female* is a dummy equal to 1 if the politician is a woman. *HighGNI* is a dummy equal to 1 if the politician is born in a gender-conservative municipality, namely in a municipality in the top tercile in terms of conservativeness of gender norms, as measured by the birth town *GNI*. Individual controls include the politician's age and parliamentary tenure (in terms of legislative terms), as well as indicators for freshman status, education level, previous occupation, and affiliation with left, center or right political coalitions. Birth town controls are all interacted with the *female* dummy and include the municipality's population, per-capita income, the share of college graduates, and a dummy for province capitals. All regressions also control for the total number of bills sponsored. The sample includes all members of the Italian House of Representative elected between 1987 and 2022, corresponding to Legislatures X to XVIII. Robust standard errors clustered at the birth town level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B15: Gender norms and bill sponsorship—Excluding top conservative districts

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.:	*Number of bills sponsored on gender issues*					
Female	4.200***	4.414***	4.318***	6.683***	6.165***	6.915***
	(0.219)	(0.246)	(0.245)	(1.813)	(1.650)	(1.809)
Female × *HighGNI*		-1.056**	-1.035**	-1.348***	-1.220***	-1.024*
		(0.472)	(0.439)	(0.499)	(0.472)	(0.522)
HighGNI		-0.001	-0.042	-0.061	0.038	-0.099
		(0.113)	(0.108)	(0.110)	(0.111)	(0.161)
Individual Controls			Yes	Yes	Yes	Yes
Female × Birth town controls				Yes	Yes	Yes
Party-by-legislature fixed effect					Yes	
District-by-legislature fixed effect						Yes
Observations	4,882	4,882	4,881	4,756	4,756	4,740
Clusters	1,082	1,082	1,082	1,036	1,036	1,034
Adj. R-squared	0.17	0.18	0.21	0.20	0.32	0.29
Mean Outcome	3.147	3.147	3.147	3.154	3.154	3.156

Notes: This table reports the results of OLS regressions where the dependent variable measures the number of bills sponsored on gender-related issues by a politician in a given legislature. *Female* is a dummy equal to 1 if the politician is a woman. *HighGNI* is a dummy equal to 1 if the politician is born in a gender-conservative municipality, namely in a municipality in the top tercile in terms of conservativeness of gender norms, as measured by the birth town *GNI*. Politicians elected in districts ranking in the 10th decile of the district-level *GNI* distribution (most conservative districts) are dropped from the sample. Individual controls include the politician's age and parliamentary tenure (in terms of legislative terms), as well as indicators for freshman status, education level, previous occupation, and affiliation with left, center or right political coalitions. Birth town controls are all interacted with the *female* dummy and include the municipality's population, per-capita income, the share of college graduates, and a dummy for province capitals. The sample includes all members of the Italian House of Representative elected between 1987 and 2022, corresponding to Legislatures X to XVIII. Robust standard errors clustered at the birth town level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B16: Gender norms and bill sponsorship—Excluding top conservative towns

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.:	*Number of bills sponsored on gender issues*					
Female	4.200***	4.444***	4.357***	6.511***	6.091***	6.722***
	(0.204)	(0.240)	(0.240)	(1.761)	(1.611)	(1.750)
Female × *HighGNI*		-1.055***	-0.989***	-1.236***	-1.141***	-0.879*
		(0.400)	(0.382)	(0.441)	(0.437)	(0.463)
HighGNI		0.008	0.024	0.005	0.062	-0.032
		(0.104)	(0.102)	(0.104)	(0.102)	(0.161)
Individual Controls			Yes	Yes	Yes	Yes
Female × Birth town controls				Yes	Yes	Yes
Party-by-legislature fixed effect					Yes	
District-by-legislature fixed effect						Yes
Observations	5,266	5,266	5,265	5,138	5,138	5,122
Clusters	1,084	1,084	1,084	1,037	1,037	1,035
Adj. R-squared	0.18	0.18	0.21	0.21	0.32	0.29
Mean Outcome	3.150	3.150	3.150	3.160	3.160	3.162

Notes: This table reports the results of OLS regressions where the dependent variable measures the number of bills sponsored on gender-related issues by a politician in a given legislature. *Female* is a dummy equal to 1 if the politician is a woman. *HighGNI* is a dummy equal to 1 if the politician is born in a gender-conservative municipality, namely in a municipality in the top tercile in terms of conservativeness of gender norms, as measured by the birth town *GNI*. Politicians born in municipalities ranking in the 10th decile of the *GNI* distribution (most conservative towns) are dropped from the sample. Individual controls include the politician's age and parliamentary tenure (in terms of legislative terms), as well as indicators for freshman status, education level, previous occupation, and affiliation with left, center or right political coalitions. Birth town controls are all interacted with the *female* dummy and include the municipality's population, per-capita income, the share of college graduates, and a dummy for province capitals. The sample includes all members of the Italian House of Representative elected between 1987 and 2022, corresponding to Legislatures X to XVIII. Robust standard errors clustered at the birth town level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B17: Gender norms and bill sponsorship—Within birth region variation

	(1)	(2)	(3)	(4)	(5)
Dep. Var.:	*Number of bills sponsored on gender issues*				
Female	4.168***	4.444***	6.576***	7.081***	5.820***
	(0.197)	(0.240)	(1.697)	(1.770)	(1.682)
Female × *HighGNI*		-1.022***	-1.221***	-1.230***	-1.013**
		(0.377)	(0.418)	(0.474)	(0.430)
HighGNI		0.038	0.105	0.122	0.097
		(0.097)	(0.220)	(0.246)	(0.209)
Individual Controls			Yes	Yes	Yes
Female × Birth town controls			Yes	Yes	Yes
Region-by-party fixed effect			Yes		
Region-by-district fixed effect				Yes	
Region-by-legislature fixed effect					Yes
Observations	5,635	5,635	5,497	5,237	5,492
Clusters	1,220	1,220	1,170	1,135	1,170
Adj. R-squared	0.17	0.18	0.20	0.24	0.29
Mean Outcome	3.140	3.140	3.148	3.174	3.147

Notes: This table reports the results of OLS regressions where the dependent variable measures the number of bills sponsored on gender-related issues by a politician in a given legislature. *Female* is a dummy equal to 1 if the politician is a woman. *HighGNI* is a dummy equal to 1 if the politician is born in a gender-conservative municipality, namely in a municipality in the top tercile in terms of conservativeness of gender norms, as measured by the birth town *GNI*. Individual controls include the politician's age and parliamentary tenure (in terms of legislative terms), as well as indicators for freshman status, education level, previous occupation, and affiliation with left, center or right political coalitions. Birth town controls are all interacted with the *female* dummy and include the municipality's population, per-capita income, the share of college graduates, and a dummy for province capitals. Region of birth fixed effects are interacted with party, electoral district, and legislative term fixed effects in Columns (3), (4), and (5), respectively. The sample includes all members of the Italian House of Representative elected between 1987 and 2022, corresponding to Legislatures X to XVIII. Robust standard errors clustered at the birth town level are displayed in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B18: Individual characteristics by *GNI* tercile—Male legislators

		Relative to low *GNI*:		
	All males (1)	Medium *GNI* (2)	High *GNI* (3)	Difference: (3)-(2) (4)
Age	49.526	0.804	1.618***	0.814
	[9.839]	(0.527)	(0.458)	(0.498)
Freshman	0.504	0.008	0.007	-0.001
	[0.500]	(0.018)	(0.017)	(0.020)
Tenure	2.791	-0.249**	0.014	0.263**
	[1.843]	(0.107)	(0.113)	(0.119)
Education level				
High school diploma	0.209	-0.020	-0.084***	-0.064***
	[0.407]	(0.023)	(0.019)	(0.024)
College degree	0.675	-0.008	0.126***	0.134***
	[0.469]	(0.028)	(0.022)	(0.027)
Previous occupation				
Teacher/Professor	0.137	0.000	0.030**	0.030
	[0.343]	(0.018)	(0.015)	(0.019)
Self-employed	0.137	0.004	-0.039**	-0.043**
	[0.344]	(0.022)	(0.018)	(0.022)
Lawyer	0.121	0.007	0.083***	0.075***
	[0.326]	(0.019)	(0.018)	(0.022)
Journalist	0.094	-0.046	-0.057*	-0.011
	[0.292]	(0.031)	(0.030)	(0.016)
White-collar worker	0.079	-0.013	-0.026**	-0.013
	[0.270]	(0.014)	(0.012)	(0.013)
Bureaucrat	0.077	0.024	0.019	-0.005
	[0.267]	(0.016)	(0.012)	(0.017)
Manager	0.086	-0.031*	-0.025	0.006
	[0.281]	(0.017)	(0.015)	(0.016)
Entrepreneur	0.078	0.007	-0.027**	-0.034**
	[0.268]	(0.017)	(0.013)	(0.015)
Physician	0.068	0.040***	0.051***	0.011
	[0.252]	(0.015)	(0.011)	(0.017)
Professional politician	0.041	-0.014	-0.022**	-0.009
	[0.198]	(0.011)	(0.009)	(0.010)
Party affiliation				
Left-wing	0.370	0.047	-0.014	-0.061**
	[0.483]	(0.030)	(0.023)	(0.030)
Centrist	0.276	-0.002	-0.031*	-0.028
	[0.447]	(0.021)	(0.017)	(0.021)
Right-wing	0.354	-0.044	0.045*	0.090***
	[0.478]	(0.029)	(0.026)	(0.029)
p-value for joint significance of characteristics		0.000	0.000	0.000

Notes: This Table compares individual characteristics of male legislators born in towns at different points of the *GNI* distribution. Column 1 reports the average value of the indicated characteristic for the sample of all male legislators, with the corresponding standard deviation in squared brackets. Columns 2 and 3 report coefficients from a regression of the indicated characteristic on indicators for birth towns in the mid and top *GNI* terciles (the bottom tercile is the omitted category). Column 4 reports the difference between the coefficients in columns 2 and 3. The last row reports the *p*-value for the hypothesis that individual characteristics are jointly equal to zero. Regarding the legislators' previous occupation, we focus on the top ten most common occupations. Robust standard errors clustered at the birth town level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B19: Gender norms and bill sponsorship—Freshmen

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.:	*Number of bills sponsored on gender issues*					
Female	3.425***	3.775***	3.681***	5.136**	4.357***	4.616**
	(0.198)	(0.238)	(0.235)	(2.076)	(1.663)	(1.879)
Female × *HighGNI*		-1.224***	-1.068***	-1.253***	-1.014***	-0.888**
		(0.386)	(0.375)	(0.428)	(0.362)	(0.411)
HighGNI		0.037	-0.050	-0.051	0.054	-0.131
		(0.114)	(0.121)	(0.124)	(0.118)	(0.182)
Individual Controls			Yes	Yes	Yes	Yes
Female × Birth town controls				Yes	Yes	Yes
Party-by-legislature fixed effect					Yes	
District-by-legislature fixed effect						Yes
Observations	2,947	2,947	2,946	2,865	2,865	2,849
Clusters	1,082	1,082	1,082	1,037	1,037	1,035
Adj. R-squared	0.16	0.16	0.19	0.19	0.32	0.30
Mean Outcome	3.221	3.221	3.221	3.221	3.221	3.220

Notes: This table reports the results of OLS regressions where the dependent variable measures the number of bills sponsored on gender-related issues by a politician in a given legislature. The sample is restricted to freshmen legislators, namely legislators who are newly elected and are entering the Parliament for the first time. *Female* is a dummy equal to 1 if the politician is a woman. *HighGNI* is a dummy equal to 1 if the politician is born in a gender-conservative municipality, namely in a municipality in the top tercile in terms of conservativeness of gender norms, as measured by the birth town *GNI*. Individual controls include the politician's age and parliamentary tenure (in terms of legislative terms), as well as indicators for freshman status, education level, previous occupation, and affiliation with left, center or right political coalitions. Birth town controls are all interacted with the *female* dummy and include the municipality's population, per-capita income, the share of college graduates, and a dummy for province capitals. The sample includes all members of the Italian House of Representative elected between 1987 and 2022, corresponding to Legislatures X to XVIII. Robust standard errors clustered at the birth town level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B20: Gender norms and bill sponsorship on gender issues—Controlling for bills sponsored

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Dep. Var.:	*Number of bills sponsored on gender issues*									
Female	4.906***	5.406***	5.147***	5.674***	5.596***	6.025***	5.019***	5.619***	4.810***	5.372***
	(1.152)	(1.257)	(1.210)	(1.322)	(1.229)	(1.310)	(1.176)	(1.254)	(1.140)	(1.239)
Female × *HighGNI*	-0.613*	-0.599*	-0.663*	-0.641*	-0.677**	-0.664*	-0.673**	-0.662*	-0.599*	-0.587*
	(0.328)	(0.336)	(0.342)	(0.351)	(0.332)	(0.347)	(0.338)	(0.350)	(0.327)	(0.333)
HighGNI	0.089	0.036	0.091	0.032	0.060	-0.019	0.047	-0.043	0.074	0.015
	(0.079)	(0.105)	(0.079)	(0.107)	(0.080)	(0.106)	(0.080)	(0.108)	(0.082)	(0.106)
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Female × Birth town controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Party-by-legislature fixed effect	Yes		Yes		Yes		Yes		Yes	
District-by-legislature fixed effect		Yes		Yes		Yes		Yes		Yes
Additional controls	N. bills		N. bills non-gender		Binned n. bills dummies		Decile n. bills dummies		Polyn. controls for n. bills	
Observations	5,498	5,482	5,498	5,482	5,498	5,482	5,498	5,482	5,498	5,482
Clusters	1,170	1,168	1,170	1,168	1,170	1,168	1,170	1,168	1,170	1,168
Adj. R-squared	0.61	0.59	0.58	0.56	0.58	0.56	0.57	0.55	0.61	0.59
Mean Outcome	3.148	3.150	3.148	3.150	3.148	3.150	3.148	3.150	3.148	3.150

Notes: This table reports the results of OLS regressions analyzing the number of bills sponsored on gender-related issues by politicians in the Italian House of Representatives (1987 to 2022). *Female* is a dummy variable equal to 1 if the politician is a woman, while *HighGNI* is a dummy equal to 1 if the politician is born in a gender-conservative municipality, namely in a municipality in the top tercile in terms of conservativeness of gender norms, as measured by the birth town *GNI*. The columns present different sets of controls for the number of bills sponsored. Columns (1) and (2) control for the total number of bills sponsored by the politician. Columns (3) and (4) controls for the politician's number of bills sponsored, excluding those related to gender issues. Columns (5) and (6) incorporate dummies for bins of the number of bills, grouped in intervals of 20 (e.g., 0-20, 20-40, and so on). Columns (7) and (8) use dummies for each bills decile. Lastly, Columns (9) and (10) flexibly control for the number of bills sponsored, including linear, quadratic, cubic, and quartic terms. All specifications include individual controls, birth town controls interacted with the *female* dummy, and either party-by-legislature (in odd-numbered columns) or district-by-legislature fixed effects (even-numbered columns). Robust standard errors clustered at the birth town level are displayed in parentheses.

Table B21: Election in region/district of birth by *GNI* tercile

	All	Relative to low *GNI*: Medium *GNI*	Relative to low *GNI*: High *GNI*	Difference: (3)-(2)
	(1)	(2)	(3)	(4)
	Panel A: Females			
Legislator elected in birth region	0.729	0.106*	0.079	-0.026
	[0.445]	(0.058)	(0.052)	(0.045)
Legislator elected in birth district	0.636	0.101*	0.141***	0.040
	[0.481]	(0.059)	(0.048)	(0.053)
	Panel B: Males			
Legislator elected in birth region	0.785	0.069**	0.032	-0.037*
	[0.411]	(0.033)	(0.032)	(0.021)
Legislator elected in birth district	0.680	0.095***	0.140***	0.045*
	[0.467]	(0.031)	(0.027)	(0.025)

Notes: This table compares the likelihood of being elected in their birth region/district for legislators born in towns at different points of the *GNI* distribution. Panel A focuses on female legislators, and Panel B on males. Column 1 reports the average likelihood for the specified sample, with the corresponding standard deviation in square brackets. Columns 2 and 3 report coefficients from regressions of indicators for being elected in the birth region/district on indicators for birth towns in the mid- and top-*GNI* terciles (the bottom tercile is the omitted category). Column 4 reports the difference between the coefficients in columns 2 and 3. Robust standard errors clustered at the birth town level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B22: Gender norms and bill sponsorship—Place of election and place of birth

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.:	*Number of bills sponsored on gender issues*					
	Panel A: Controlling for election in district of birth					
Female	4.177***	4.443***	4.356***	6.350***	5.908***	6.625***
	(0.196)	(0.240)	(0.241)	(1.751)	(1.593)	(1.729)
Female × *HighGNI*		-0.980***	-0.902**	-1.171***	-1.066**	-0.963**
		(0.375)	(0.361)	(0.425)	(0.421)	(0.439)
HighGNI		0.047	0.017	-0.004	0.063	-0.057
		(0.098)	(0.097)	(0.098)	(0.097)	(0.158)
Observations	5,628	5,628	5,627	5,491	5,491	5,482
Clusters	1,219	1,219	1,219	1,169	1,169	1,168
Adj. R-squared	0.17	0.18	0.21	0.20	0.32	0.29
Mean Outcome	3.139	3.139	3.139	3.147	3.147	3.150
	Panel B: Sample restricted to politicians elected in district of birth					
Female	4.057***	4.332***	4.328***	6.738***	6.057***	5.985***
	(0.235)	(0.302)	(0.292)	(1.880)	(1.738)	(1.913)
Female × *HighGNI*		-0.908*	-0.733	-1.098**	-0.970*	-0.764
		(0.469)	(0.454)	(0.519)	(0.513)	(0.531)
HighGNI		0.043	0.007	-0.020	0.007	0.116
		(0.109)	(0.113)	(0.116)	(0.115)	(0.242)
Observations	3,787	3,787	3,787	3,682	3,682	3,662
Clusters	935	935	935	890	890	887
Adj. R-squared	0.17	0.17	0.21	0.21	0.32	0.29
Mean Outcome	3.072	3.072	3.072	3.075	3.075	3.077
Individual Controls			Yes	Yes	Yes	Yes
Female × Birth town controls				Yes	Yes	Yes
Party-by-legislature fixed effect					Yes	
District-by-legislature fixed effect						Yes

Notes: This table reports the results of OLS regressions where the dependent variable measures the number of bills sponsored on gender-related issues by a politician in a given legislature. Panel A additionally controls for an indicator equal to 1 if the politician is elected in her district of birth, and 0 otherwise. In Panel B the sample is restricted to politicians elected in their district of birth (indicator equal to 1). *Female* is a dummy equal to 1 if the politician is a woman. *HighGNI* is a dummy equal to 1 if the politician is born in a gender-conservative municipality, namely in a municipality in the top tercile in terms of conservativeness of gender norms, as measured by the birth town *GNI*. Individual controls include the politician's age and parliamentary tenure (in terms of legislative terms), as well as indicators for freshman status, education level, previous occupation, and affiliation with left, center or right political coalitions. Birth town controls are all interacted with the *female* dummy and include the municipality's population, per-capita income, the share of college graduates, and a dummy for province capitals. The sample includes all members of the Italian House of Representative elected between 1987 and 2022, corresponding to Legislatures X to XVIII. Robust standard errors clustered at the birth town level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B23: Gender norms and bill sponsorship on gender issues—Large municipalities

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.:	*Number of bills sponsored on gender issues*					
Female	4.225***	4.594***	4.377***	7.746**	6.892**	8.480**
	(0.300)	(0.371)	(0.365)	(3.410)	(3.087)	(3.223)
Female × *HighGNI*		-1.568***	-1.257***	-1.938**	-1.986**	-1.903**
		(0.472)	(0.461)	(0.774)	(0.789)	(0.890)
HighGNI		-0.010	-0.094	-0.097	-0.004	-0.241
		(0.147)	(0.139)	(0.141)	(0.137)	(0.287)
Individual Controls			Yes	Yes	Yes	Yes
Female × Birth town controls				Yes	Yes	Yes
Party-by-legislature fixed effect					Yes	
District-by-legislature fixed effect						Yes
Observations	2,246	2,246	2,245	2,207	2,207	2,194
Clusters	57	57	57	44	44	44
Adj. R-squared	0.17	0.18	0.20	0.20	0.32	0.30
Mean Outcome	3.117	3.117	3.118	3.123	3.123	3.131

Notes: This table reports the results of OLS regressions where the dependent variable measures the number of bills sponsored on gender-related issues by a politician in a given legislature. The sample is restricted to politicians who were born in large municipalities with at least 100,000 inhabitants. *Female* is a dummy equal to 1 if the politician is a woman. *HighGNI* is a dummy equal to 1 if the politician is born in a gender-conservative municipality, namely in a municipality in the top tercile in terms of conservativeness of gender norms, as measured by the birth town *GNI*. Individual controls include the politician's age and parliamentary tenure (in terms of legislative terms), as well as indicators for freshman status, education level, previous occupation, and affiliation with left, center or right political coalitions. Birth town controls are all interacted with the *female* dummy and include the municipality's population, per-capita income, the share of college graduates, and a dummy for province capitals. The sample includes all members of the Italian House of Representative elected between 1987 and 2022, corresponding to Legislatures X to XVIII. Robust standard errors clustered at the birth town level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$