

ARTICLE

Modern Family? The Gendered Effects of Marriage and Childbearing on Voter Turnout

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(Received 18 January 2022; revised 13 October 2022; accepted 11 November 2022; first published online 26 January 2023)

Abstract

In many democracies, gender differences in voter turnout have narrowed or even reversed. Yet, it appears that women participate more in some circumstances and men in others. Here we study how life trajectories – specifically, marriage and having children – will impact male and female turnout differently, depending on household-level context. To this end, we leverage a unique administrative panel dataset from Italy, an established democracy where traditional family structures remain important. Our within-individual estimates show that marriage increases men’s participation to women’s higher pre-marital levels, particularly so in low-income families. We also find that infants depress maternal turnout, especially among more traditional families, whereas primary school children stimulate paternal turnout. Exploring aggregate-level consequences, we show that demographic trends in marriage and fertility have contributed to recent shifts in the gender composition of the electorate. Together, our results highlight the importance of the family as a variable in political analyses.

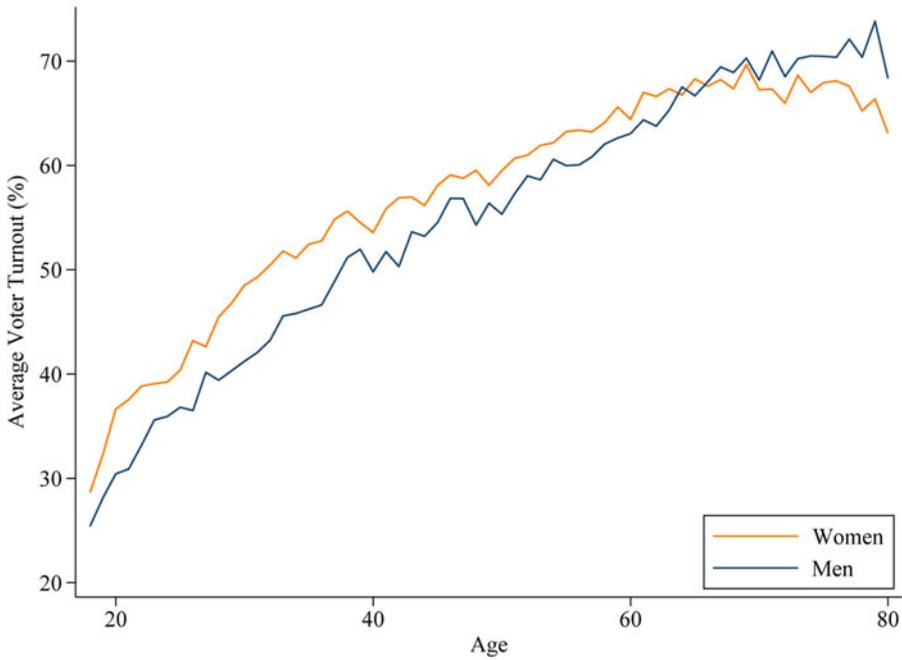
Keywords: voter turnout; gender; household; family

In the decades following the extension of suffrage, women were initially less willing to participate in elections than men (Teale 2018). Though in recent years, female turnout has increased on average and is now higher than male turnout in several established democracies, including Norway and the US (Kittilson 2016). These trends carry important implications for the political representation of women, who hold policy preferences that often diverge from men’s, and who are more likely to elect female politicians (Miller 2008; Teele, Kalla, and Rosenbluth 2018).

Yet, women remain less likely to vote than men in many political and social contexts (for example, see Dassonneville and Kostelka 2021; Inglehart and Norris 2003). While recent work documents the persistence of a traditional gender turnout gap in many developing countries (for example, Cheema et al. 2020), Fig. 1 shows that, in the US and (Northern) Italy, the association between gender and turnout depends on age: Whereas young women tend to vote at higher rates than men of the same age, this difference narrows among middle-aged voters, and reverses among the elderly. Similar patterns hold in other advanced industrial societies such as Sweden (Dehdari et al. 2022) and Norway (Bratsberg et al. 2019).¹

¹We note that the very low levels turnout among 18–25 year-olds in the US may be driven by voting registration costs and/or by the high share of US college students who are away from home at the first election in which they are eligible to vote (Leighley and Nagler 2013), whereas turnout patterns among 18–25 year-olds in northern Italy resemble those observed in Scandinavia (Bratsberg et al. 2019; Dehdari et al. 2022). However, our study focuses on events that usually affect voters later in the life cycle.

(a) U.S. – Current Population Survey (CPS) Self-Reported Turnout



(b) Bologna, Italy – Turnout Based on Administrative Data

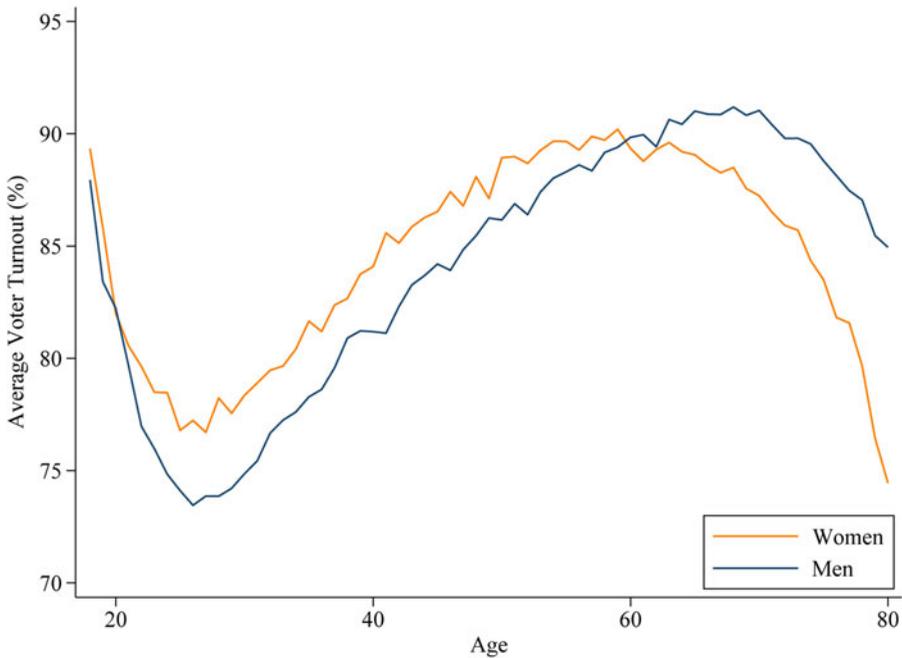


Figure 1. Voter turnout by age and gender in the US and Bologna, Italy: (a) US – Current Population Survey (CPS) Self-reported turnout, (b) Bologna, Italy – turnout based on administrative data.

Notes: (a) Shows self-reported voter turnout by age and gender based on CPS data for the 2008–2018 US general elections; (b) Shows average voter turnout by age and gender based on our administrative data from Bologna, Italy, covering the 2004 and 2009 European and municipal elections and the 2008 and 2013 national parliamentary elections.

To explain this gender-by-age variation, prior work focuses mostly on cross-national comparisons and within-country generational differences (Inglehart and Norris 2003). The first strand of work suggests that the gender gaps in employment and pay have been ‘sticky’, which may affect participation even though gender differences in education have diminished (Leighley and Nagler 2013; Lindgren, Oskarsson, and Persson 2019). The second strand of work contends that women’s political engagement is higher when there are more female candidates and political figures, and shows that the socializing effects of political context are strongest among young women (Dassonneville and McAllister 2018; Wolbrecht and Campbell 2007). The third strand of work emphasizes the role of social context or ‘culture’ (Dassonneville and Kostelka 2021; Inglehart and Norris 2003). For example, gender turnout differences tend to be greater in countries where gender norms are more unequal, as evidenced by the math achievement gap between boys and girls (Dassonneville and Kostelka 2021). The fourth strand of work focuses on institutions. For instance, female voters are more likely to participate under proportional representation than under plurality voting, as the former gives greater incentives to party elites to mobilize women in competitive districts (Skorge 2021). Thus, prior literature shows that gender differences in voter turnout are highly contextual and highlight how different cohorts of female and male voters have been influenced by very different circumstances.

We contribute by studying how ‘within-individual’ changes affect female and male voters differently depending on what circumstances they find themselves in. To this end, we focus on family transitions – specifically, marriage and having children. A large literature shows that changes in family composition are major breakpoints in life that can significantly impact political participation (Wolfinger and Rosenstone 1980). Yet, we know little about the gendered effects of these experiences. Although recent work in the gender and politics literature builds on a long tradition in development economics that has thought of households as an important unit of analysis (Brulé and Gaikwad 2021; Cheema *et al.* 2020; Prillaman 2023), and political scientists have acknowledged the important role of the demands of care work on women’s participation (Iversen and Rosenbluth 2006), the type of intra-household studies that are common in developing countries have, with some notable exceptions (Bernhard, Shames, and Teele 2021; Dahlgaard *et al.* 2022; Dehdari *et al.* 2022), not yet taken hold in the study of established democracies. To address this gap, we theorize that women and men have different turnout trajectories over their life cycles, which are heavily influenced by household-level context.

Our theoretical framework explicitly discusses how marriage and parenthood may induce gendered turnout patterns. First, although marriage sometimes coincides with other changes in household composition – for example, moving in together or the arrival of a child – there are strong reasons to expect that marriage, as an institution, will specifically motivate turnout. In particular, the transition to marriage is often associated with greater stability and responsibility. Another consequence of marriage is that it tends to equalize participation between spouses (Stoker and Jennings 1995). These effects should increase men’s turnout, both in absolute terms and relative to women’s, especially in household contexts where pre-marital participation is higher among females than among males. Given that voters tend to mate assortatively within income groups, the mobilizing effects of marriage will likely be moderated by socio-economic status: They should be concentrated among low-income men, who have relatively low pre-marital vote propensities.

Second, raising children has both mobilizing and demobilizing effects but tends to disadvantage women. In particular, young children, who require high levels of parental attention, may decrease participation among mothers without having the same negative effects on fathers, though this asymmetry will depend on institutional parental leave policies and individual parents’ attitudes towards the gendered division of tasks within the household. For example, the negative effect of motherhood on turnout will be stronger in families where one or both parents come from an environment that emphasizes traditional gender attitudes. Yet, this gendered context may evolve when children get older. We suggest that primary school-age children will mobilize

fathers more than mothers, whereas young adults will have a positive effect on both parents' turnout.

In the empirical analysis, we leverage a unique individual-level panel dataset merging three sources of administrative data from Bologna, a large northern Italian municipality, using voter rolls, the civil register, and income tax files. We find that the transition from never-married to married has a persistent positive effect on men's turnout (+2 p.p.), leaving women's unchanged, which closes the pre-marital turnout gap between men and women. Furthermore,²

We also examine the impact of children of different ages on parental voter turnout and uncover important gender differences. Young children (aged 0–5) induce a drop in maternal turnout (–2 p.p.) that lasts for several years, leaving paternal turnout unchanged. This effect is stronger among internal migrants from conservative southern Italy (–4 p.p.), but it is muted among progressive never-married parents. We also find suggestive evidence that this effect is mitigated in families where mothers go back to work after childbirth. In addition, we find that primary school kids (aged 6–11) boost men's turnout somewhat (+1 p.p.), but not women's. This gender asymmetry slowly diminishes among parents of adolescents (aged 12–17) and evanesces when children reach voting age (18), an event that mobilizes both mothers and fathers (+1 p.p.).

Going one step further, we discuss the possible links between these household-level dynamics and aggregate-level changes in voting patterns over time. In many established democracies, marriage rates have recently declined, an evolution that disproportionately affects low-income couples. Moreover, fertility rates tend to be higher among families with more traditional gender attitudes. We argue that these demographic trends pertaining to family and gender contribute to explaining why voting participation has stagnated or diminished in many democracies even though important individual-level predictors of turnout, like education and age, have increased on average (Kostelka and Blais 2021; Leighley and Nagler 2013). By depressing the turnout among unmarried men and young mothers, these evolutions play a significant part in recent trends in the gender-by-age composition of the electorate (Fig. 1).

Tracking every resident of Bologna, Italy, over a period of nine years (2004–2013), our administrative data enabled us to identify within-individual effects in a difference-in-differences (DD) framework. We conducted robustness checks addressing potential time-varying confounds. This research design improves on prior work based on conditional-on-observables approaches and self-reported survey data. It also provides a rare opportunity to study the social dynamics of voter turnout with large-scale register data outside Scandinavia and the US (Dahlgaard 2018; Stauffer and Fraga 2022). While we discuss the generalizability of our findings, our main contribution consists of digging deep into one case, which allows us to shed light on theoretically-important heterogeneity and time patterns.

Theory and Prior Evidence

It is well-documented that marriage and the arrival of children can transform political behaviour (Wolfinger and Rosenstone 1980). Yet surprisingly little is known about the gendered consequences of these life transitions on voting participation. We theorize that marriage and parenthood affect female and male voters differently depending on the household-level context they find themselves in, and will explore the possible implications of these effects for democratic representation.

Family and Comparative Political Behavior

While classic theories point to gender gaps in resources, political engagement, and political networks to explain gender differences in political participation (Schlozman, Burns, and Verba 1994;

²For comparison, the average turnout effect of unemployment is about –3 p.p. in northern Italy (Schafer et al. 2022).

Verba, Burns, and Schlozman 1997), recent studies conducted in developing countries have extended this work, showing the influence of gender norms and intra-household dynamics (Brulé and Gaikwad 2021; Cheema *et al.* 2020; Prillaman 2023). In traditional societies, women are expected to play a greater role in the public sphere when they hold more control over material resources (Brulé and Gaikwad 2021). Successful strategies to empower women include strengthening women's networks (Prillaman 2023) as well as mobilizing male 'gate-keepers' (Cheema *et al.* 2020).

Less is known about the role of household-level context in advanced industrial societies. Prior work shows that gender differences in the stock of participatory resources – that is, money, time, and civic skills – have declined in recent years due to increasing female education and labour force participation and that the possibility of divorce has improved women's bargaining power within families (Iversen and Rosenbluth 2006). Nevertheless, marriage and the presence of children may affect the gender division of household and paid labour to the disadvantage of women (Iversen and Rosenbluth 2006), particularly so in gendered societies like Italy (Alesina and Ichino 2009).

Recent work conducted in Scandinavia and the US has begun studying the interplay between gender attitudes and socio-economic factors within the household. Dehdari *et al.* (2022), for example, show that Swedish men now tend to 'marry up' when it comes to voting participation, potentially due to higher levels of female education, on average, but divorce also has a stronger negative effect on men's turnout than on women's. Bernhard, Shames, and Teele (2021) find that US women who have bread-winning responsibilities are less likely to run for office.

Our study makes two contributions to this emerging literature: First, we examine how the gendered consequences of marriage and childbirth on turnout will vary in different household contexts. Second, we broaden the literature by focusing on Italy, an advanced industrial society where traditional family structures remain important.

The Gendered Consequences of Marriage

The extant literature documents – with few exceptions³ – that turnout tends to be higher among married voters compared to unmarried voters (Cutts and Fieldhouse 2009; Leighley and Nagler 2013; Wolfinger and Wolfinger 2008). Certainly, the transition to marriage will sometimes coincide with other life events such as cohabitation or childbearing, which must be accounted for when estimating the effect of marriage. However, marriage as an institution is in itself associated with greater responsibility and stability. This may differently affect the voter turnout results between women and men, given that the consequences of marriage on other social outcomes are often gendered (Dehdari *et al.* 2022). Yet, there are strong theoretical reasons to expect that the direction and magnitude of these gendered effects will depend on household context.

First, the effect of marriage on female and male turnout will depend on whether one's spouse is the type of person who tends to vote or abstain. In their path-breaking work on the role of life-cycle transitions in political behaviour, Stoker and Jennings (1995) suggest that changing marital status will trigger socialization and peer effects within couples, which should, on average, equalize participation between men and women. For individual voters, the social dynamics of marriage may either increase or decrease turnout. Though in many households compliance with the social norm to vote will likely increase after marriage, especially among men (Dehdari *et al.* 2022).

Second, the gendered effect of marriage on voter turnout should vary by socio-economic context. The transition to marriage tends to dislocate previous modes and styles of living. For

³Using panel survey data from the US, Stoker and Jennings (1995) find that, if anything, marriage depresses voter participation. But, consistent with the equalization hypothesis, they also find that, after marriage, spouses adjust voter turnout to become more like one other.

example, marriage often involves staying in place for a while, increasing the likelihood of owning property. Yet, voters tend to mate assortatively within income groups (Gruneau 2018; Gruneau 2020) – that is, poor voters tend to marry other poor voters and rich voters tend to marry other rich voters. Thus, the turnout effect of marriage will likely be moderated by socioeconomic status (SES). On the one hand, marriage should boost turnout among low-SES men, who often have low pre-marital vote propensities, both relative to their spouses and high-SES voters. On the other hand, the effect of marriage should be either small or zero among high-SES couples, who often have equally high pre-marital turnout propensities.

Studying the intersectionality of gender with other dimensions of participatory inequality is empirically challenging (Stauffer and Fraga 2022). A major limitation of the extant literature is that it relies mostly on self-reported survey data (Smets and van Ham 2013). This may lead to social desirability bias as well as response bias, which is difficult to predict *ex-ante*. For example, validation studies have found that marital status correlates negatively with turnout over-reporting, whereas the correlation between income and turnout over-reporting is positive (Ansolabehere and Hersh 2012). This problem is likely aggravated by gender-specific misreporting in surveys of income. In particular, married women who earn more than their husbands often report incomes just below those of their husbands (Roth and Slotwinski 2019). This highlights the important contribution of administrative records when studying the marriage-turnout relationship.

To our knowledge, only a few prior studies, conducted in the Scandinavian context, leverage register data. Although their paper focuses on the turnout effect of neighbourhood ethnic diversity, Bhatti, Danckert, and Hansen (2017) find that marriage increases voter turnout by about 4.5 p.p., whereas Dahlgaard et al. (2022) show that cohabitation – which sometimes coincides with, but often precedes marriage – has a positive effect on the participation of both women and men (+3.5 p.p.), Dehdari et al. (2022) document a gendered marriage effect, as evidenced by a drop in men's turnout relative to women's by 1.5–2.5 p.p. following divorce. Our administrative panel data from northern Italy provide an excellent opportunity to expand this literature by exploring household-level heterogeneity of the effect of marriage on voter turnout among women and men. While the level of socio-economic diversity is high in our setting (Belletini, Berti Ceroni, and Monfardini 2016), the cost of voting is low⁴ and there is a strong social norm prescribing voting as an act of civic duty (Putnam, Leonardi, and Nanetti 1993), thus making it plausibly hard to find any effects of voter turnout.

Furthermore, our longitudinal analysis allows us to explore the consequences of changing marital patterns for the composition of the electorate. Recent work suggests that generational replacement – particularly, the emergence of cohorts that grew up in relative affluence – has contributed to the long-term decline of voting participation in established democracies (Kostelka and Blais 2021). Yet, little is known about the role of demographic change pertaining to gender and family. Mirroring recent trends in advanced industrialized societies (Schneider, Harknett, and Stimpson 2018), marriage rates have decreased in northern Italy over the period of study, and particularly so among low-income groups; an evolution that accelerated during the Great Recession. We hypothesize that if low-income men find it increasingly difficult to marry, then declining marriage rates should lead to increasing turnout inequality.

The Asymmetric Effects of Parenthood

Prior work indicates that having kids can have both demobilizing and mobilizing effects on parents' turnout and that these effects often differ between men and women (Bhatti et al. 2018). Yet, in a meta-analysis, Smets and van Ham (2013) warn that the relationship between parenthood and turnout is rarely studied systematically. Here we discuss theoretically-important sources of household-level heterogeneity.

⁴For example, voter registration is automatic, making it easy to vote if individuals move after getting married.

The gendered effect of parenthood on voting participation should depend, first, on whether and when women go back to work after childbirth. The late stages of pregnancy and the early stages of parenthood create considerable physiological and psychological challenges that may reduce turnout for both parents, but particularly so for mothers. Giving birth will restrict the participatory resources – especially time – available to women, though motherhood does not necessarily reduce the willingness to engage in politics (Jennings 1983; Schlozman, Burns, and Verba 1994). When kids get older, the maternal time constraint becomes less binding but going back to work may impose new restrictions on the amount of time that mothers can devote to politics (Bernhard, Shames, and Teele 2021). However, returning to the labour force may also increase mothers' control over participatory resources (Iversen and Rosenbluth 2006) and foster the development of networks and civic skills closer to the world of politics (Schlozman, Burns, and Verba 1994). Thus, the negative effect of motherhood on voter turnout will likely be mitigated when mothers go back to work.

In their recent work, Dahlgard and Hansen (2021) leverage a twin-study design to show that, in the Danish context, having an additional child depresses turnout among both parents, but more so among mothers (−3 p.p.) than among fathers (−1 p.p.). Using register data from Denmark and Finland, Bhatti *et al.* (2018) show that parenthood has similar negative turnout effects among mothers (−4 p.p.) and fathers (−3.5 p.p.) in the weeks before and after the birth of a child, although the participation of fathers tends to recover more quickly. Yet, this small gender difference and quick temporal recovery may reflect the particular context of Scandinavian welfare states, which provide generous paid leave for both mothers and fathers, thus making it easier for mothers to go back to work (Cascio, Haider, and Nielsen 2015).

Our northern Italian setting allows us to broaden the literature by studying the impact of parenthood on voter turnout in a well-developed welfare state where traditional forms of gender-appropriate behaviour remain important. Unlike Scandinavian countries, southern European welfare states have historically promoted the gendered division of tasks within households (Morgan 2006). For example, parental leave is relatively short in Italy and mostly reserved for mothers. As we further elaborate below, northern Italian regions have more recently adopted progressive policies that strongly encourage mothers to remain in the labour force, though Italian family norms continue to prescribe strong gender imbalance in household chores (Alesina and Ichino 2009), which may further reduce mothers' participatory resources. Thus, we expect that, in our context, parenthood should generally disadvantage females compared to males, though the magnitude and persistence of this effect are difficult to predict *ex-ante*.

Second, it is important to consider that the gendered context that influences parents' voting participation will evolve when children get older. With growing parental responsibility, the sense of civic duty to vote may increase (Bhatti *et al.* 2018). Thus, motherhood may generate mobilizing effects when kids get older and women are less constrained by household responsibilities, whereas fatherhood should generally have a positive impact on voter turnout among men, especially when they have school-age kids. By the time children reach voting age, both parents may receive positive turnout spillovers from their children's voting eligibility; for example, because parents accompany their children to vote for the first time (Dahlgard 2018). This provides theoretical reasons to expect that, while the asymmetric effects of having children on turnout should generally disadvantage women compared to men, gender differences in the impact of parenthood should diminish as children get older. To our knowledge, no prior empirical work has attempted to systematically study the effects of children of various ages on fathers' and mothers' voting participation.

The third source of contextual heterogeneity is parents' gender attitudes. Our northern Italian setting offers an opportunity to compare the gendered impact of parenthood between families who hold very different values. In particular, the gender asymmetry affecting parenthood on turnout should be stronger among internal migrants from conservative southern Italy, who often hold traditional gender attitudes (Alesina and Ichino 2009), and weaker among never-married parents who tend to be more progressive.

We also explore the consequences of aggregate-level demographic patterns on the composition of the electorate. As we document below, the proportion of births outside marriage has increased during our sample years; yet, internal migrants from the South were much more likely to have kids. This suggests that, if anything, recent trends in fertility may perpetuate established patterns of turnout inequality between women and men.

Background

Our study focuses on the city of Bologna, a municipality of about 370,000 inhabitants in northern Italy. The period of study spans the 2004 and 2009 same-day municipal and European elections, as well as the 2008 and 2013 national parliamentary elections. Voter turnout, though declining over time, has been historically very high in Bologna (Putnam, Leonardi, and Nanetti 1993). It was above 79 per cent in the four elections we considered and was even slightly higher in the national parliamentary elections, though the difference with same-day municipal/European elections was small (see Table 1).

Appendix A.1 shows that, like in most other democracies, voter turnout in Italy has been declining steadily in the past decades. For example, men's turnout was greater than 90 per cent nationwide in the 1994 national parliamentary elections but declined to about 85 per cent in the 2006 national elections. While remaining consistently lower than men's turnout, 1994–2006, women's turnout also experienced a similar decline.

In the two national elections in our sample, members of the Italian parliament were elected using a closed-list proportional system with a majority premium.⁵ In the two municipal elections in our data, voters elected both the mayor and members of the city council. Specifically, in Italian mayoral elections, voters cast a ballot for a mayoral candidate, with the candidate receiving the largest number of votes getting elected.⁶ In cities with at least 15,000 residents, like Bologna, voters can also vote for one of the lists competing for at-large seats in the city council. Each list receives a number of seats proportional to its vote share, with a minimum of 60 per cent of the seats allocated to the party lists supporting the winning mayoral candidate. Finally, the European elections held concurrently with the 2004 and 2009 municipal elections featured an open-list proportional system. That is, the country is split into five districts and, within each district, the European Parliament seats are awarded to the parties on a proportional basis to the votes cast.

Voter registration is automatic for Italian citizens. While there was no absentee or early voting in our setting, Bologna residents were allowed to vote on Sunday and the following Monday. In Table A6 in the Online Appendix, we show that there is no effect heterogeneity by distance to the polls, thus corroborating that barriers to voting are low.

Bologna and the region of Emilia-Romagna are known for their strong civic traditions and high levels of social capital – as evidenced by a large number of local clubs and associations (Putnam, Leonardi, and Nanetti 1993) – and for being among the most progressive and modern regions of northern Italy – in contrast to the considerably more conservative and traditional regions of southern Italy. Accordingly, the proportion of female city councillors (36 per cent in Bologna as of 2012, before the enforcement of law-mandated country-wide gender quotas) is among the highest in the country. Moreover, levels of labour force participation among working-age women (69.1 per cent; ISTAT) in 2013 were above the average of Organization for Economic Co-operation and Development (OECD) countries (62.5 per cent; OECD). The coverage of public or publicly-funded pre-kindergarten schools is also high by national and

⁵Italy features a perfectly bicameral legislature; that is, the two Houses of Parliament share identical powers and functions. For a review of the minor differences between the two Houses of Parliament, see Cantoni, Gazzè, and Schafer (2021).

⁶In Italian cities with 15,000 residents or more, like Bologna, if no candidate receives the absolute majority of the valid mayoral ballots cast in the first round, the two candidates with the highest vote share compete in a runoff.

Table 1. Average turnout by year and by voter demographic characteristics

	All voters 1	Women 2	Men 3
Election year:			
2004	0.843	0.831	0.856
2008	0.852	0.846	0.860
2009	0.791	0.783	0.800
2013	0.808	0.794	0.823
Age:			
18–25	0.800	0.811	0.790
26–45	0.805	0.820	0.790
46–65	0.885	0.889	0.879
66 +	0.787	0.745	0.852
Marital status:			
Never married	0.791	0.806	0.778
Married	0.872	0.866	0.877
Divorced	0.816	0.824	0.802
Widowed	0.701	0.687	0.774
Have any cohabiting kids aged:			
0–5	0.848	0.834	0.863
6–11	0.876	0.868	0.887
12–17	0.895	0.886	0.907
18 +	0.867	0.844	0.899
<i>N</i>	1,163,355	628,043	535,312
<i>N</i> voters	381,257	202,345	178,912

Notes: Each cell reports average turnout by voter gender (columns) and election year/voter characteristics (rows) using administrative data covering all voting-eligible Italian residents of Bologna. Each observation/data point used to compute these statistics refers to a voter observed in a given election (that is, a voter-year).

international standards. However, Italian parental leave policies continue to reflect the ‘southern European welfare state’ model (Morgan 2006), encouraging mothers, but not fathers, to take time off work.⁷

Italy is a predominantly Catholic country. While the Church’s opinion on marriage and fertility remains important, its influence has significantly declined in recent years. For example, the nationwide percentage of marriages conducted in church (as opposed to city hall) was 68.1 per cent (resp. 31.9 per cent; ISTAT) in 2004, but dropped to 57.5 per cent (resp. 42.5 per cent) in 2013. In the province of Bologna, the percentage of church (vs. city hall) marriages dropped from 49.8 per cent (resp. 50.2 per cent) in 2004 to 35.1 per cent (resp. 64.9 per cent) in 2013, thus reflecting both national trends and Bologna’s relatively lower levels of religiosity.

More importantly, the total number of marriages dropped throughout the study, an evolution that disproportionately affected low-income voters, which accelerated following the Great Recession (see Table A1 in the Online Appendix). While 29.6 per cent of Bologna’s registered voters had never been married in 2004, this share increased to 33.5 per cent in 2013. This trend was significantly more pronounced among voters with below-median income (28.5 per cent never-married in 2004, compared to 39.7 per cent in 2013), whereas the share of never-married remained relatively stable among above-median income voters (26.5 per cent in 2004 and 28.3 per cent in 2013). This decline in marriage rates reflects broader trends in advanced industrialized societies (Schneider, Harknett, and Stimpson 2018) but it has been particularly strong in Italy. Whereas Italian marriage rates were above the average of OECD countries in 1995, they were among the lowest in the OECD by 2017.⁸

Although average birth rates in Bologna remained stable throughout the study, two patterns pertaining to parenthood are of interest here (see Table A2 in the Online Appendix). First, in

⁷As of 2021, women must take up to two months off from work before and three months off after a child’s birth, whereas fathers are obligated to take a ten-day paid leave of absence from work within five months after a child’s birth.

⁸Source: OECD (https://www.oecd.org/els/family/SF_3_1_Marriage_and_divorce_rates.pdf) Accessed 21 July 2021.

never-married households, the average number of cohabiting kids increased from 0.07 in 2004 to 0.1 in 2013. Second, in married households, the average number of kids was consistently higher if one or both parents were internal migrants from the centre-south of Italy (about 0.4) than if both parents were born in the North (about 0.25).⁹ This suggests that the demographic impact of the increasing number of never-married parents may be limited, given that fertility rates were much higher among families with plausibly more traditional values.

Studying the effects of family status on voter turnout in this context is interesting on its own, as it provides longitudinal evidence from an established democracy where traditional family structures remain important but are rapidly changing. However, there are reasons to believe that many of our insights travel to other democracies. Given that civic traditions are strong in Bologna (Putnam, Leonardi, and Nanetti 1993), on average it may be harder to find any effects on voter turnout than in other parts of Italy or in other OECD countries, thus enhancing the generalizability of our findings.

Data

This project relies on administrative socio-demographic and voter turnout records from the city of Bologna. To construct our panel dataset including turnout and socio-demographic information, we first digitized all of Bologna's voter attendance sheets from the 2004, 2008, 2009, and 2013 elections. We then sent the turnout data to the municipal statistical office, which matched them against the administrative socio-demographic records of the resident population. After anonymizing and de-identifying the data, the municipality of Bologna returned to us the matched turnout and socio-demographic information.

The resulting voter-level turnout register covers the universe of the voting-eligible population in Bologna. The data contain an anonymous, time-invariant voter identifier, which effectively gives us an unbalanced individual-level panel with up to four observations per voter. The retention rate is 84.2 per cent – with deceased voters and out-of-town movers dropping out – over the nine years of our study. The data also features a household identifier, which may vary if individuals change households.

The turnout data are complemented by detailed administrative socio-demographic information covering every resident of Bologna (that is, including non-voting eligible residents) updated as of, approximately, the four election days in the sample. Among others, these data contain: age in years, gender, marital status (that is, never-married, married, divorced, or widowed), neighbourhood, immigration status, position within the household¹⁰, as well as individual-level income and income taxes paid in the year of the election. Online Appendix Figure A3 reports a few rows of data.

The demographic data also contains a variable for counts of household members. In some cases, such as inmates or seniors living in retirement communities, that variable differs from the number of family members imputable by counting individuals with the same household identifier. We excluded these cases from all samples. We also excluded 4,999 observations matched to no demographic data,¹¹ twenty-five individuals who appear to have changed gender across

⁹Focusing on the numerous internal migrants in Bologna allows us to study the consequences of fertility differences among voting-eligible citizens. However, we note that most immigrant groups in OECD countries tend to display higher levels of childbearing after relocating (Andersson, 2004).

¹⁰The variable position within the household specifies each individual's relationship to the head of the household, for example: Head of household (exactly one individual per household-year), spouse of the head of the household, child of the head of household, stepchild of the head of household, cousin, parent, etc. The head of the household is self-selected by household members – and this choice is recorded on the civil register – when a new family is constituted (for example, through marriage).

¹¹The majority of these 4,999 voter-years (out of almost 1.2 million observations/voter-years) are Italians living abroad who elected to vote in person at the polling site associated to their last residential address in Bologna, instead of voting

elections, and six individuals with unknown marital status. Finally, we dropped those individuals who were not Italian citizens.

Although the data does not say explicitly if an individual has children, we impute this information based on the household structure. Specifically, one of the possible categories of the variable ‘position within household’ is ‘the son/daughter of the head of household’. Because the demographic data cover the universe of the resident population (that is, including children of any age), counting the number of individuals in that position gives the head of household’s exact number of cohabiting children. Notice, however, that this imputation only makes sense for heads of households and their spouses because, while the variable ‘position within household’ is specified relatively to heads of households, it is complicated and even impossible to accurately determine whether individuals in other positions have children.¹² For this reason, when we examine the effect of children on turnout, we limit the sample to heads of households and their spouses (or unmarried cohabiting partners).

Estimation

To paraphrase Wolfinger and Wolfinger (2008), the most important methodological question when studying voters who are married and have kids is: ‘compared to whom?’ That is, individuals with different family statuses often differ on many other dimensions. To reduce confounding bias, our main estimates leverage within-individual comparisons over time. Specifically, we employ two different estimation strategies. We begin by reporting difference-in-difference (DD) estimates using our administrative panel data. We then conduct an event-study analysis with these data.

Difference-in-Differences

The goal of the main analysis is to distinguish the gendered effects of family transitions from other correlated factors like individual attitudes and socio-economic backgrounds. Conditional-on-observables impact estimates are indeed subject to several confounding factors. For example, voter-specific pro-social attitudes are likely correlated with turnout, child-rearing, and marital status, making it hard to identify the causal effect of family structure on turnout with simple cross-sectional Ordinary Least Squares (OLS) regressions. Similarly, both turnout and family structure likely correlate with education (Leighley and Nagler 2013), which is not directly observable in our administrative data.¹³ To address these concerns, we exploit the longitudinal dimension of our data in a DD framework. Specifically, our identification strategy accounts for all (observable or unobservable) time-invariant voter characteristics, thus strongly reducing the risk of omitted variable bias.

We begin the analysis by estimating DD regressions of the following form:

$$\begin{aligned} \text{voted}_{it} = & \text{female}_i \times (\beta^{m,\text{female}} \text{married}_{it}) + \text{male}_i \times (\beta^{m,\text{male}} \text{married}_{it}) \\ & + \alpha_i + \delta_t + \text{age}_{it}^{\text{sex}} + X'_{it} \gamma + \varepsilon_{it}, \end{aligned} \quad (1)$$

by mail from abroad. The residual unmatched records originate from small differences (that is, days) between the four election days in our sample and when the corresponding civil register data were drawn.

¹²Reassuringly, of the 1,163,355 records from our main analysis dataset, about 97 per cent of them are either household heads (60.08 per cent), their spouses or cohabiting partners (24.11 per cent), or their children (12.87 per cent). Only 3 per cent are individuals in other positions within the household (for example, parents or grandchildren of the head of the household).

¹³In our DD models controlling for voter fixed-effects, education is accounted for because it plausibly varies little over time when individuals transition to marriage and parenthood. In addition, our DD analysis controls for income.

where vote_{it} is a dummy for whether voter i turned out to vote in election t ; married_{it} are gender-specific dummies for whether voter i 's was married as of Election Day t ; α_i , δ_t , and $\text{age}_{it}^{\text{sex}}$ denote full sets of voter, election, and age in years-by-gender fixed-effects, respectively; X_{it} is a set of controlling covariates. Standard errors are two-way clustered by voter and household. Voter-level clustering accounts for the potential serial correlation of regression residuals within voters while household-level clustering accounts for the marriage treatment simultaneously affecting couples of voters within the same household.

We also estimate the within-individual effect of children on maternal vs. paternal turnout with the following DD specification:

$$\begin{aligned} \text{voted}_{it} = & \text{female}_i \times (\beta^{0\text{to}5} \text{kids0to5}_{it} + \beta^{6\text{to}11} \text{kids6to11}_{it} + \beta^{12\text{to}17} \text{kids12to17}_{it} \\ & + \beta^{18+} \text{kids18}_{it}) + \text{male}_i \times (\beta^{0\text{to}5} \text{kids0to5}_{it} + \beta^{6\text{to}11} \text{kids6to11}_{it} \\ & + \beta^{12\text{to}17} \text{kids12to17}_{it} + \beta^{18+} \text{kids18}_{it}) + \alpha_i + \delta_t + \text{age}_{it}^{\text{sex}} + X'_{it} \gamma + \varepsilon_{it}, \end{aligned} \quad (2)$$

which, relative to Equation 1, replaces dummies for marital status with controls for the presence of kids aged 0–5, 6–11, 12–17, and 18 or more. To isolate the turnout effect of kids from (possibly concurrent) effects of changes in marital status, all but the most parsimonious versions of Equation 2 include gender-specific dummies for marital status.

Remember that we can accurately determine whether a voter has children only if that person is the head of household or her/his spouse or unmarried cohabiting partner. Thus, while the marriage estimation sample includes all eligible voters, the sample for children regressions is limited to the subset of voters whose position within the household is 'head of household' or 'spouse/partner of the head of household'.

Our DD identification strategy relies on a parallel-trend assumption. That is, voters who get married/have children in the sample period (that is, treated voters) would absent these changes, experience identical over-time changes in turnout as voters who do not change marital status/have kids (that is, control voters). To check the robustness of our results to potentially time-varying confounders over the nine years of study, and (indirectly) test the validity of the parallel-trend assumption, we report three different model specifications. First, the baseline model includes individual voter fixed effects, year fixed effects that absorb average differences between the elections included in our data, as well as age-by-gender fixed effects.¹⁵ Second, we augment our model with a rich set of neighbourhood, household, and voter controls to compute counterfactual trends among voters sharing similar characteristics and living in comparable households and areas.¹⁶ In our third and preferred specification, we add gender-specific dummies for the number of cohabiting children of various ages in the marriage models and gender-specific marital status dummies in the children models. We also use this specification to examine theoretically important heterogeneity, comparing results in different subsamples of our data; that is, above vs. below the median income in our marriage model, and never-married vs. internal migrants from the south of Italy in our parenthood model. By combining our DD identification strategy

¹⁴All marital status regressions control for gender-specific dummies identifying divorced and widowed voters. Thus, the omitted category of marital status is 'never married'.

¹⁵We interact gender with age (in years) fixed-effects for two reasons. First, transitions in marital status and birth of children typically occur at different ages for men and women. For example, female (resp. male) voters in our sample who have just switched from 'never married' to 'married' are 36.5 (resp. 38.5) years old, on average. Second, women and men of the same age may have different turnout rates, even in the absence of treatment. For example, women may be in better health than men of the same age; if better health translates to higher turnout, we may expect women to turn out at higher rates than same-aged men.

¹⁶Neighbourhood controls are precinct-year average age and household income, shares of female and Italian residents, and city neighbourhood-by-year fixed effects. Household controls are the share of household members who are Italian citizens and the OECD-modified gross household income. Voter controls are own income and taxes paid.

with a large set of available controls, we can be rather certain that our estimates are not biased by unobservables – with some possible exceptions such as sex-selective abortion and family planning, which is, however, very rare among Italians (Ambrosetti *et al.* 2015).

Event Study

In addition, we employ an event-study approach, which allows us to visualize the timing and duration of our effects and to indirectly test the assumption for causal identification. As the parallel-trend assumption is a statement on counterfactual outcomes – that is, unobservable changes in treated voters' turnout in absence of treatment – it cannot be tested directly. Yet, it can be tested indirectly in the spirit of Granger (1969). The idea is to check that, consistent with marriage causally affecting turnout, changes in marital status happen *before* changes in turnout and not vice versa. To this end, we estimate the following event study specification:

$$\text{voted}_{it} = \sum_{\tau} \text{married}_{it\tau} \times (\beta_{\tau}^{m,\text{female}} \text{female}_i + \beta_{\tau}^{m,\text{male}} \text{male}_i) + \alpha_i + \delta_t + \text{age}_{it}^{\text{sex}} + X'_{it} \gamma + \varepsilon_{it}, \quad (3)$$

Where $\text{married}_{it\tau}$ is a dummy equal to 1 if election t occurs τ elections since the first election voter i 's marital status was 'married'.¹⁷ Because our data spans four elections, τ ranges between -3 and $+2$. The coefficients of interest are the $\beta_{\tau}^{m,\text{sex}}$'s, measuring the turnout difference, conditional on controls, between married and control voters τ elections before ($\tau < 0$) or after ($\tau \geq 0$) marriage. All coefficients are normalized relative to $\tau = -1$; that is, the last election before marriage. The vector X_{it} contains all covariates from our most demanding DD specification, including gender-specific controls for counts of kids in different age bins.

Plotting estimated effects from Equation 3, it would be reassuring to see that marriage affects turnout only in post-marriage elections (that is, $\tau \geq 0$). By contrast, patterns of significant pre-marriage coefficients (that is, $\tau < 0$) may hint at possible violations of the identification assumption. For example, a pattern of increasing and possibly significant pre-marriage effects (that is, a 'pre-trend') may suggest that voters getting married started voting more before marriage (for example, because of job or residential stability predating marriage), thus casting doubts on the notion that marriage itself affected turnout.

We also estimate an event study for the gender-specific effects of children on voter turnout. To this end, we replace the treatment variable in Equation 3 with an indicator for the arrival of the first cohabiting child within the household. Again, the vector X_{it} contains the same set of covariates used in our most demanding DD specification, including gender-specific controls for marital status.

Results

We begin the analysis by examining descriptive patterns in our administrative data. Table 1 shows average levels of turnout in Bologna among male and female voters. The first rows indicate that levels of participation were high in both national elections (2008 and 2013) and same-day municipal and European elections (2004 and 2009), but declined over the period of study, mirroring trends in other parts of Italy.¹⁸ European elections are often less salient than municipal and national elections, which could have gendered consequences since, in many democracies, women are less likely to turn out in second-order elections (Dassonneville and Kostelka 2021). However, the average turnout difference between election types is small in our setting (1–2 p.p.), possibly due to the high salience of municipal elections (which were held concurrently

¹⁷Recall that we observe voters' marital status as of election day but we do not observe the exact date of marriage.

¹⁸Nationwide turnout in Italy declined from 87.35 per cent in 1992 to 72.93 per cent in 2018.

with European elections). Importantly, male turnout was about 2 p.p. higher, on average, than female turnout in each election included in our data.¹⁹ Yet, the next rows show that young and middle-aged women are more likely to vote than men of the same age. This difference is larger among voters aged 26–45, though it narrows over their life course and flips among the elderly in line with patterns observed in other established democracies (Bratsberg et al. 2019; Dehdari et al. 2022; Leighley and Nagler 2013).

The bottom half of Table 1 provides descriptive evidence suggesting that family context might play a role in explaining these patterns. (In this table, an observation consists of a voter in a given election; that is, a voter-year.) Whereas never-married women are about 3 p.p. more likely to vote than never-married men, married women are about 1 p.p. less likely to vote than married men. We also find gendered patterns among couples who have kids. In particular, women with infant children are 3 p.p. less likely to vote than men who have kids of that age. This gender difference is smaller among parents of primary and secondary school kids (2 p.p.). It is larger among parents who have cohabiting adult children, which is consistent with the patterns we observe among the elderly but is likely driven by factors other than the transitions to marriage and parenthood that we focus on in this study.

We next begin exploring how gender differences in voter turnout intersect with other dimensions of participatory inequality. Figure 2 provides descriptive evidence that the income–turnout relationship is gendered and varies between never-married and married voters. Whereas single women are significantly more likely to vote than men with similar levels of income (Fig. 2a), this difference is small among married voters, with perhaps a slight advantage for men (Fig. 2b). Comparing the two panels, Fig. 2 also reveals large turnout differences between never-married and married men in low-income groups. For example, among men who have zero taxable household income (for example, if all cohabiting family members are unemployed), the average level of turnout was 62 per cent of the voters who were never married, compared to 70 per cent of the voters who were married.

These preliminary findings corroborate the theory that life transitions affect women and men's turnout differently depending on the household context they find themselves in. They also suggest there might be a link between the demographic trends in marriage and fertility we describe in the background section and the recent decline in voter turnout. However, they do not provide any causal evidence. For this reason, in the next step of the analysis, we turn to our DD models.²⁰

Effects of Marriage

Table 2 reports the estimated effects of transitioning from never-married to married among female and male voters, as well as female-minus-male differences in impact estimates. We find that the positive effect of marriage on turnout is concentrated entirely among male voters (about 2 p.p.), while estimated effects on women are tightly centred around zero and are statistically insignificant across all specifications. Gender differences in impact estimates (that is, $\beta^{m, \text{female}} - \beta^{m, \text{male}}$) are discernible from zero and indicate that the never-married to married transition boosts men's turnout by about 2 p.p. relative to women undergoing the same change in marital status. Thus, gender heterogeneity in marriage effects appears to offset differences in turnout between never-married men and women. Although not definitive, this evidence is consistent with the theory that marriage equalizes voter participation across spouses by lifting men's turnout to the higher pre-marriage levels of their wives.²¹

¹⁹In our DD models, we absorb average differences between types of elections with election year fixed-effects. However, our results are robust when we estimate separate models for national and same-day European/municipal elections (see Appendix Tables A3 and A7).

²⁰Reinforcing the intuition that life transitions affect women and men differently, Appendix A.4 shows that gender heterogeneity in the income–turnout relationship varies by voter age.

²¹In the Online Appendix, we examine the effects of moving in together. In Figure A9a, we find that cohabitation increases both men and women's turnout—unlike marriage, which increases only men's turnout. However, we also find suggestive

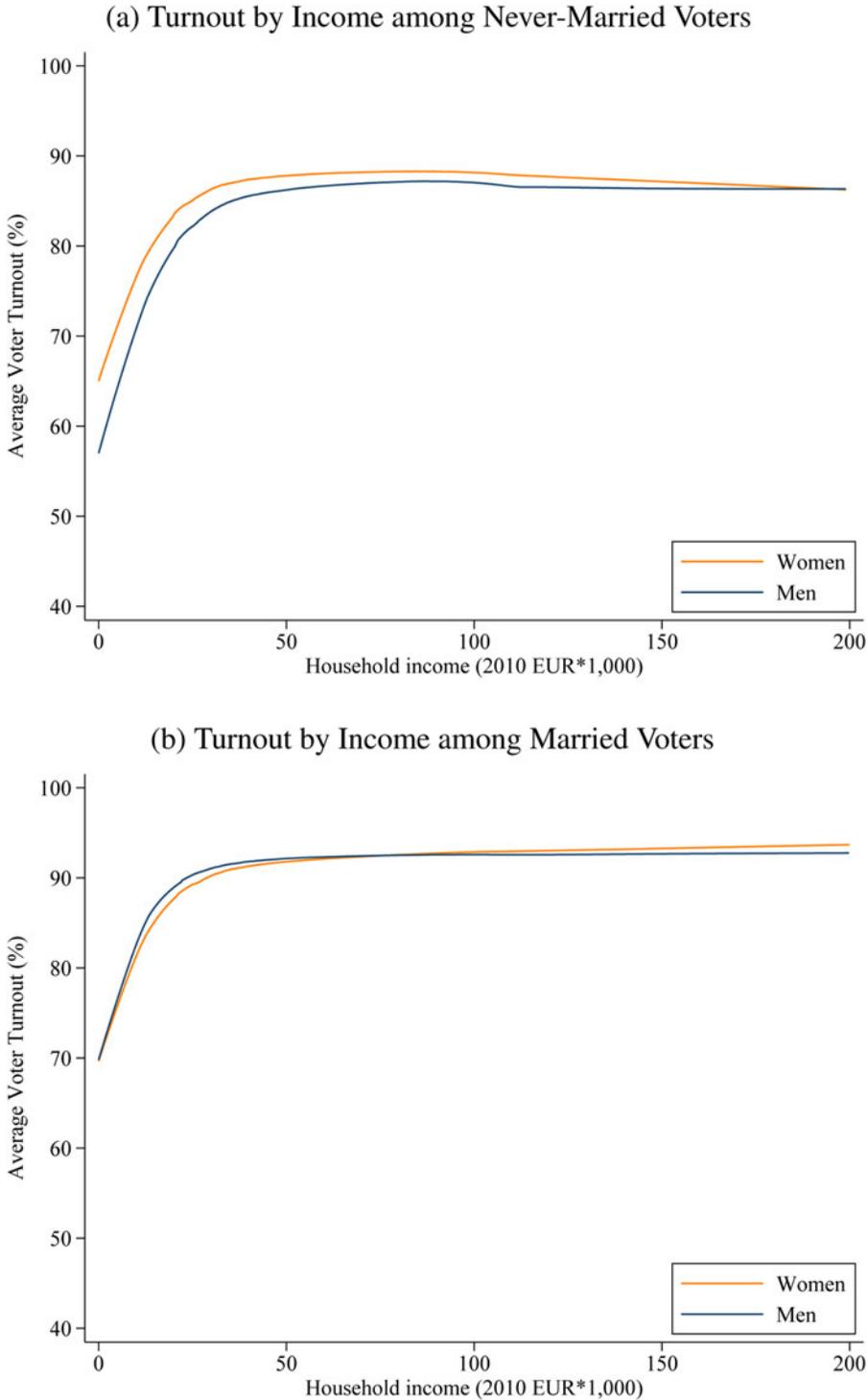


Figure 2. Turnout by income, gender, and marital status: (a) Turnout by income among never-married voters, (b) turnout among married voters.

Notes: The figure plots the lowest fit of voter turnout on OECD-modified household income, in 2010 k€, among female (in orange) and male voters (in blue), pooling administrative data from four election years (2004–2013) in Bologna, Italy. The top and bottom panels plot the gender-specific income-turnout relationship among never-married and married voters, respectively. The mean and standard deviation of income in (a) are, respectively, 23.18 and 20.24. Corresponding figures for (b) are, respectively, 28.95 and 23.45. The first, second, and third quartiles of income in (a) are, respectively, 11.32, 20.29, and 29.75 (15.40, 23.72, and 35.24, in (b)).

Table 2. Turnout effect of marital status by voter’s gender

	Outcome: Voter-level turnout				
	Full sample			Below-median income voters	Above-median income voters
	1	2	3	4	5
Married female	−0.001 (0.005)	−0.001 (0.005)	0.004 (0.005)	0.008 (0.010)	0.009 (0.007)
Married male	0.020** (0.004)	0.019** (0.004)	0.019** (0.004)	0.046** (0.011)	0.0001 (0.0065)
$\beta^{\text{married female}} - \beta^{\text{married male}}$	−0.021** (0.006)	−0.020** (0.006)	−0.015* (0.006)	−0.037** (0.014)	0.009 (0.009)
Voter FEs	✓	✓	✓		
Age × Gender FEs	✓	✓	✓		
Election FEs	✓	✓	✓		
Neighbourhood controls		✓	✓		
Voter controls		✓	✓		
Children × Gender FEs			✓		
Never-married female Y	0.813	0.813	0.813		
Never-married male Y	0.787	0.787	0.787		
N	1,084,202	1,084,202	1,084,202		

Notes: The table reports gender-specific estimates of the effect of marriage on turnout using Bologna’s administrative turnout and demographic data (that is, estimates of the β coefficients from Equation 1). All columns control for gender-specific dummies identifying divorced and widowed voters; consequently, marriage effects are relative to never-married voters. Neighbourhood controls are precinct-year average age and household income, as well as shares of female and Italian residents, and city neighbourhood-by-year FEs. Voter controls are the share of household members who are Italian citizens, OECD-modified gross household income, as well as own income and taxes paid. Children FEs are four dummies indicating the presence of one or more children of the following ages: 0–5, 6–11, 12, –17, and 18+. The sample in column 4 (resp. column 5) is restricted to voters whose household income is, in every election, below (resp. above) the election-specific median household income. Standard errors are two-way clustered by voter and household. **p < 0.01, *p < 0.05.

Figure 3a shows the event-study results for the effects of marriage. Reassuringly for our DD identification assumption, treated and control men share statistically indistinguishable voter turnout in pre-marriage elections (that is, $\tau < 0$). In contrast, married men’s turnout increases after marriage (that is, $\tau \geq 0$) by a significant 2 p.p., a magnitude that is consistent with the findings from Table 2. Similarly, there are no obvious pre-trends in married women’s voter turnout. At the same time, there is no noticeable change in turnout after marriage. Again, this finding supports the zero effect of marriage on women’s turnout shown in Table 2. Importantly, the regression underlying Fig. 2 controls for gender-specific dummies for the presence of cohabiting kids of different age ranges. Thus, childbirth after marriage does not drive the effects reported in the graph.²²

Figure 3b plots female-minus-male differences in marriage-induced turnout effects (that is, $\beta_{\tau}^{m,\text{female}} - \beta_{\tau}^{m,\text{male}}$), along with corresponding 95 per cent confidence intervals. Upholding the validity of the parallel-trends assumption, pre-marriage gender differences are centred around zero and insignificant. By contrast, in post-marriage elections, married women’s turnout decreases by 1–2 p.p. relative to married men’s, which, again, is in line with estimates of gender differences in Table 2. In Appendix A.5 we show graphically that the gender-heterogeneous effect of marriage on turnout exactly offsets the (positive) pre-marriage difference between female and male voter participation. That is, marriage equalizes voter participation across spouses.²³

evidence that men’s turnout (and not women’s) increases even further in the third election following cohabitation, which is consistent with our marriage estimates (as a large share of cohabiting voters may eventually get married).

²²Remember that we do not observe the year of marriage, but only marital status as of each election. It is thus impossible to precisely measure when childbirths happen relative to marriage.

²³Unfortunately, we cannot estimate equation 3 separately by national parliamentary and municipal/European elections because we have only two elections of each type (and we need at least three to run event-study regressions). However, we

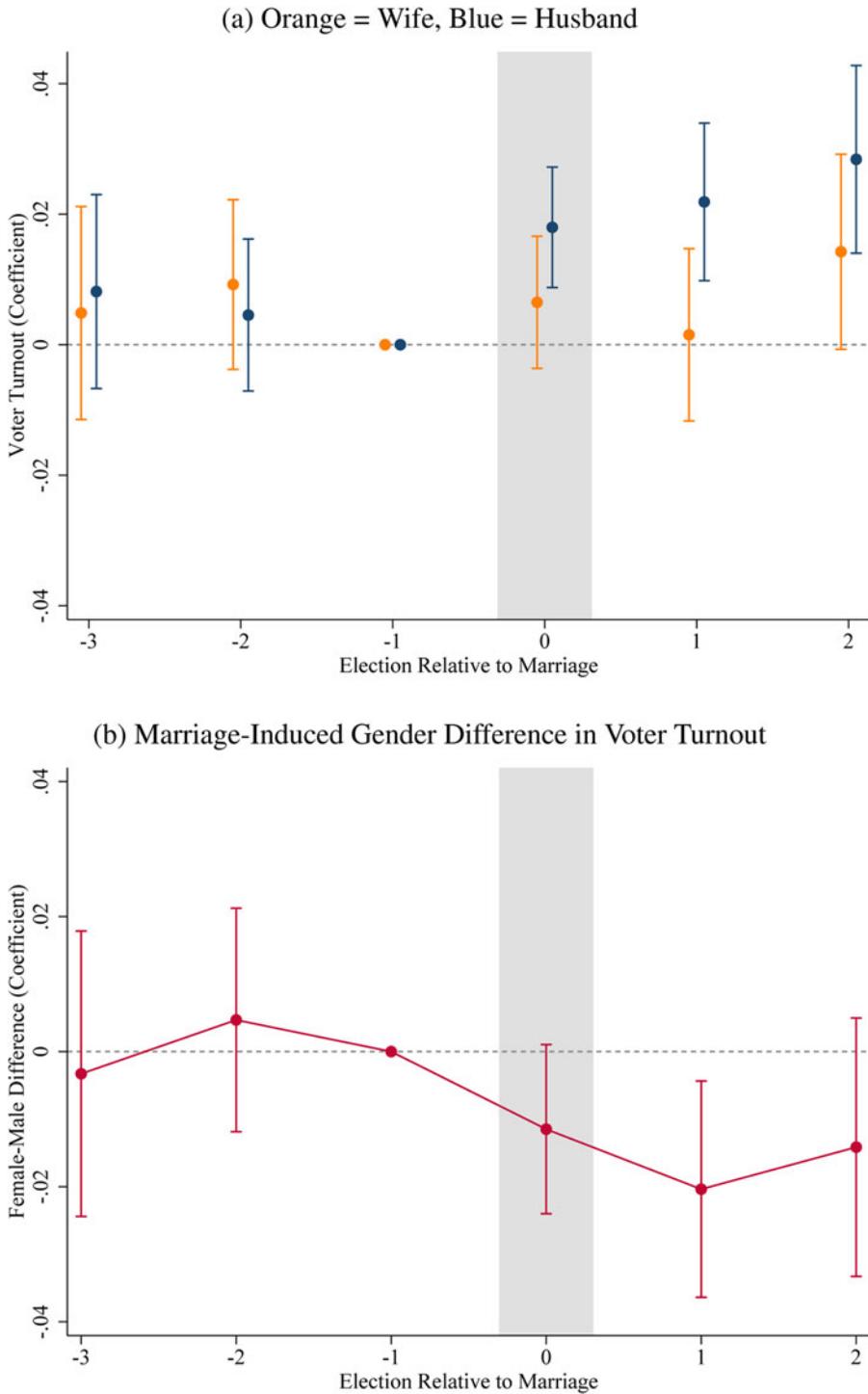


Figure 3. An event study of the impact of marriage on turnout.

Notes: (a) Plots event-study estimates of the effect of marriage on women's (orange) v. men's (blue) turnout, along with 95 per cent confidence intervals. All estimates are from a unique regression controlling for the same covariates included in Table 2, column 3. The x-axis denotes the election relative to the first election in which a voter's marital status is married. (b) Plots the differences between female- and male-specific effects.

Columns 4 and 5 of Table 2 report the results of separate DD models among families with household income below the median and above the median.²⁴ This allows us to examine theoretically-important heterogeneity. Like in our main estimates (column 3), marriage increases turnout among men in relatively poor families (column 4), leaving women's turnout unchanged, and this effect appears to equalize husbands' turnout to the higher pre-marital levels of their wives. Note that the effect size is about 4 p.p. among low-income male voters – that is, double the magnitude of our impact estimate among men. We also show that marriage has no statistically significant turnout effect in high-income families (column 5), perhaps as a result of assortative mating among rich voters (Gruneau 2020).

We have now established that marriage can set female and male voters on a different turnout trajectory than they would otherwise have been, and that the equalizing effect of marriage is most consequential among low-income men. Note that in Table 2, the gender difference in the effect of marriage on voting participation shrinks from column 2 ($\beta^{m,female} - \beta^{m,male} = -0.020$) to column 3 ($\beta^{m,female} - \beta^{m,male} = -0.015$). Unlike the former, the latter controls interactions between gender and dummies for the presence of kids in the household, thus suggesting that children affect at least one of their parents' turnout. We take a closer look at the turnout effects of children in the following section.

Effects of Parenthood

Table 3 reports estimates of the effect of children on maternal v. paternal turnout. We find that the presence of children aged 0 to 5 significantly reduces women's turnout, leaving men's participation unaffected. The difference between the negative effect on women and the zero effect on men is around 2 p.p. and is statistically significant. While primary school-age children (aged 6 to 11) do not depress maternal turnout, they do increase paternal participation by approximately 1 p.p. Secondary school-age kids (12–17) appear to increase women's participation as well – possibly because mothers of adolescent children are less constrained by household responsibilities – though this mobilizing effect is significantly stronger among men ($\beta^{12-17,female} - \beta^{12-17,male} = -0.7$ p.p.). It is only when children reach voting age (18 years) that this heterogeneity dissipates and both men's and women's turnout increases by around 1 p.p. relative to childless voters, perhaps because parents receive positive turnout spillovers from their children's voting eligibility (for example, as parents accompany their children to vote for the first time [Dahlgard 2018]).

To further investigate and visualize the pattern of children's effects, Fig. 4a plots estimates of the turnout effects of children of specific ages. That is, the underlying regression controls for the same independent variables as Table 3, column 3, but uses dummies based on 1-year age intervals for the children's age (that is, 0-year-olds, 1-year-olds, etc.) instead of four broader intervals (that is, 0–5, 6–11, 12–17, and 18+). While these estimates are noisier due to the larger number of age bins, they provide a more fine-grained picture. The plot reveals that while the negative effect of children on maternal turnout is strongest in the months following childbirth, it persists for several years, and then vanishes when children turn four. By contrast, 0-to-5-year-olds do not affect paternal turnout (with the possible exception of 2-year-olds). The duration of this asymmetry in the Italian context is remarkable, as it contrasts with prior work showing that, in Nordic countries, the turnout of mothers recovers within weeks after giving birth (Bhatti et al. 2018). We also find that older kids increase men's turnout relative to women's. The ensuing gender difference is sizable (about 1 p.p.) and stable for children aged 5 through 15 (Fig. 4b). When kids turn 16, this heterogeneity disappears.

can still investigate heterogeneity by election type using our DD regressions, which we do in Online Appendix Tables A3 and A7.

²⁴We adjust our income measure to family size. We apply the OECD modified scale, dividing the sum of household income by 1 for the household head, an additional 0.5 for each additional adult household member (aged 14 or older), and 0.3 for each child (younger than 14).

Table 3. Effect of children on parents' turnout by children's age and voter's gender

Outcome: Voter-level turnout					
	1	Full sample 2	3	Never-married voters 4	Ever-married couples both born south 5
Female w/children aged 0–5	−0.017** (0.003)	−0.016** (0.003)	−0.017** (0.003)	−0.009 (0.009)	−0.040** (0.010)
Male w/children aged 0–5	0.004 (0.003)	0.004 (0.003)	0.001 (0.003)	0.021* (0.010)	0.008 (0.009)
Female w/children aged 6–11	0.004 (0.003)	0.004 (0.003)	0.004 (0.003)	0.018 (0.011)	0.010 (0.009)
Male w/children aged 6–11	0.011** (0.003)	0.011** (0.003)	0.010** (0.003)	0.015 (0.015)	0.030** (0.009)
Female w/children aged 12–17	0.006* (0.003)	0.006* (0.003)	0.006* (0.003)	0.020 (0.013)	0.015 (0.008)
Male w/children aged 12–17	0.013** (0.003)	0.013** (0.003)	0.013** (0.003)	0.015 (0.020)	0.020* (0.008)
Female w/children aged 18+	0.013** (0.002)	0.013** (0.002)	0.013** (0.002)	0.034* (0.015)	0.023** (0.007)
Male w/children aged 18+	0.011** (0.002)	0.012** (0.002)	0.011** (0.002)	0.022 (0.030)	0.019** (0.007)
$\beta^{0-5} \text{ female} - \beta^{0-5} \text{ male}$	−0.021** (0.004)	−0.020** (0.004)	−0.018** (0.004)	−0.029* (0.013)	−0.048** (0.011)
$\beta^{6-11} \text{ female} - \beta^{6-11} \text{ male}$	−0.007* (0.004)	−0.007* (0.004)	−0.006 (0.004)	0.004 (0.019)	−0.020 (0.010)
$\beta^{12-17} \text{ female} - \beta^{12-17} \text{ male}$	−0.008* (0.003)	−0.007* (0.003)	−0.007* (0.003)	0.005 (0.024)	−0.005 (0.010)
18 + female – 18 + male	0.002 (0.003)	0.001 (0.003)	0.002 (0.003)	0.012 (0.033)	0.004 (0.008)
Voter FEs	✓	✓	✓	✓	✓
Age × Gender FEs	✓	✓	✓	✓	✓
Election FEs	✓	✓	✓	✓	✓
Neighbourhood controls		✓	✓	✓	✓
Voter controls		✓	✓	✓	✓
Marital status × Gender FEs			✓	✓	✓
Female w/o kids Y	0.809	0.809	0.809	0.797	0.750
Male w/o kids Y	0.833	0.833	0.833	0.762	0.777
N	902,103	902,103	902,103	166,737	99,648

Notes: The table reports gender-specific estimates of the turnout effect of cohabiting children of different ages using Bologna's administrative turnout and demographic data (that is, estimates of the β coefficients from Equation 2). All samples are restricted to heads of households and their spouses or unmarried cohabiting partner. The sample in column 4 (resp. column 5) is further restricted to never-married voters (resp. ever-married couples with both spouses born in Centre-South regions). Neighbourhood controls are precinct-year average age and household income, shares of female and Italian residents, and city neighbourhood-by-year FEs. Voter controls are the share of household members who are Italian citizens, OECD-modified household income, as well as own income and taxes paid. Marital status FEs are three dummies indicating married, divorced, and widowed voters. Standard errors are two-way clustered by voter and household. **p < 0.01, *p < 0.05.

Figure 5a plots event-study coefficients of the effect of children on maternal (in orange) and paternal (in blue) turnout, which provides additional evidence about the credibility and persistence of our impact estimates. Like in prior event-study plots, $\tau = 0$ denotes the first election a treated voter (that is, a voter who switches from having no kids to having kids) is observed having at least one child. Analogously, $\tau = -1$ denotes the last election without kids, $\tau = +1$ is the second election with kids, etc. We find no pre-trends in voter turnout; that is, treated and control voters have identical (conditional) turnout in pre-children elections. Corroborating the gender heterogeneity documented in Table 3, treated women's turnout falls sharply in the first election with children ($\tau = 0$), while treated men witness no drop in turnout. By the third election, with children ($\tau = 2$) women's turnout recovers to pre-treatment levels while men's increases by approximately 2 p.p. Figure 5b plots female-minus-male differences in event-study coefficients (that is,

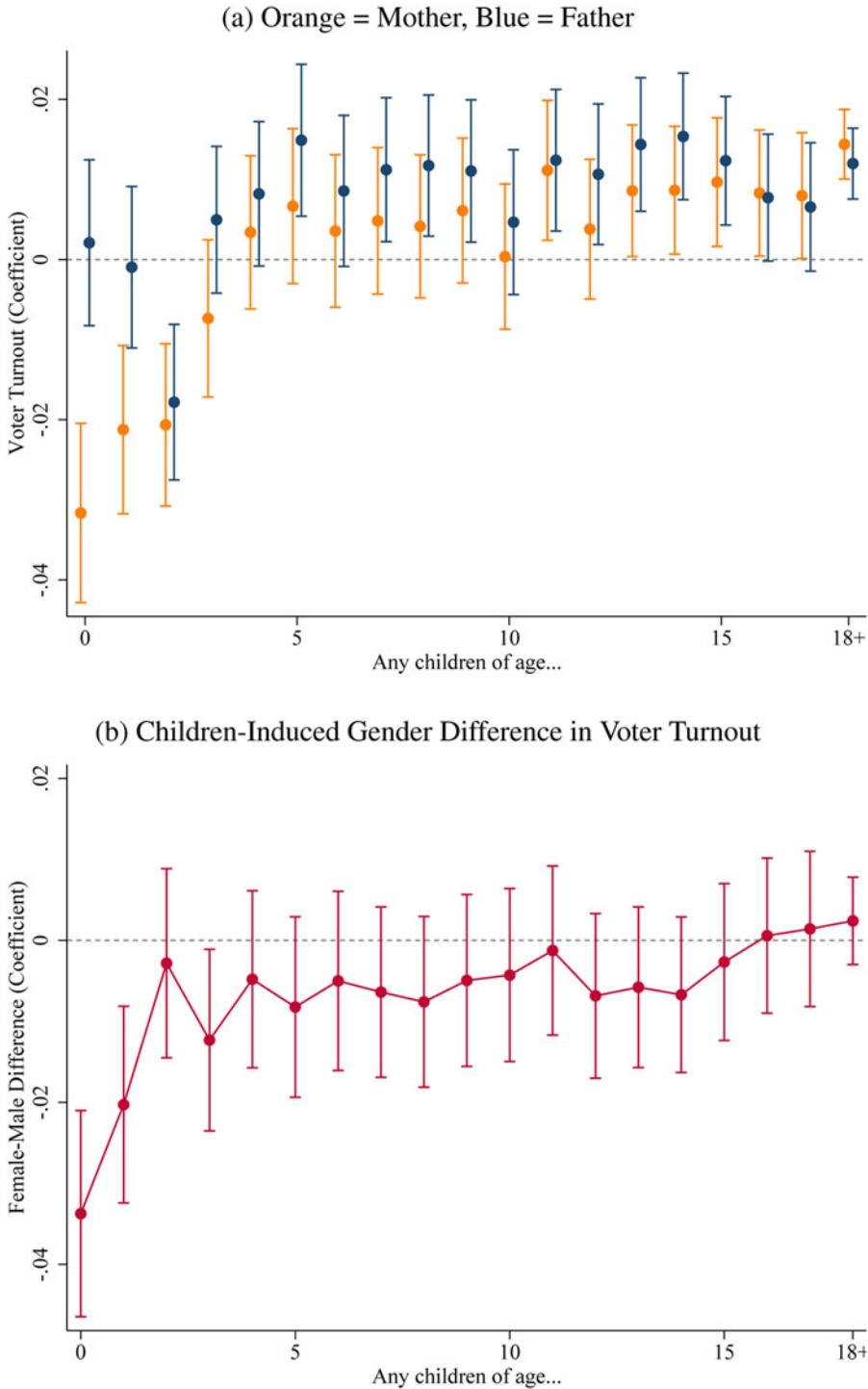


Figure 4. Effects of children on parents' turnout by children's age.

Notes: (a) Plots estimates of the effect of children of different ages on maternal (orange) v. paternal (blue) turnout, along with 95-per cent confidence intervals. All estimates are from a unique regression controlling for the same covariates included in Table 3, column 3. (b) Plots differences between female- and male-specific effects.

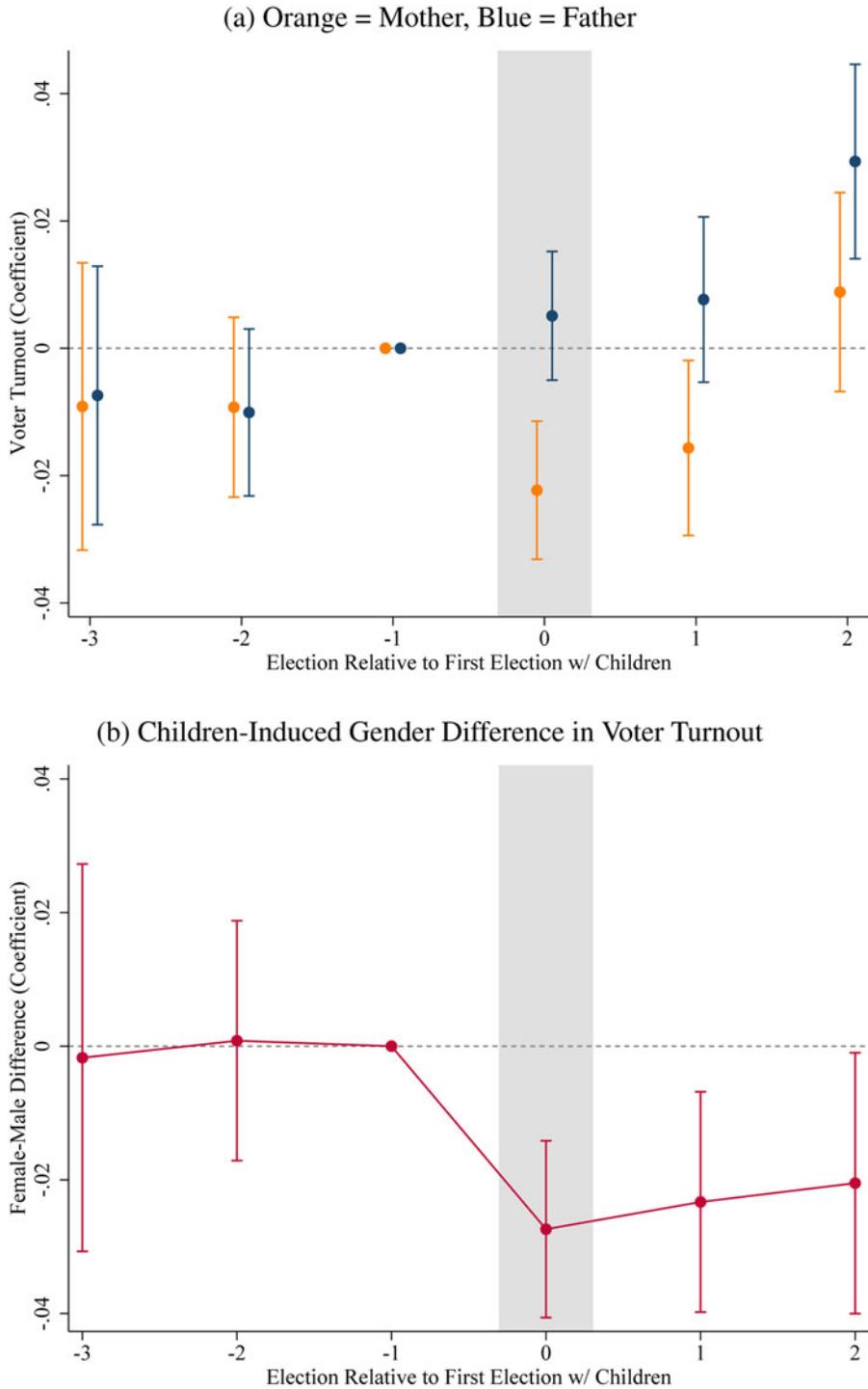


Figure 5. An event study of the impact of parenthood on turnout.

Notes: (a) Plots event-study estimates of the effect of children on maternal (orange) v. paternal (blue) turnout, along with 95 per cent confidence intervals. All estimates are from a unique regression controlling for the same covariates included in Table 3, column 3. The x-axis denotes the election relative to the first election in which a voter is first observed having children. (b) Plots the differences between female- and male-specific effects.

$\beta_{\tau}^{m,\text{female}} - \beta_{\tau}^{m,\text{male}}$). Bolstering the causal interpretation of our findings, treated men and women share identical (conditional) turnout in pre-children years; that is, there is no pre-trend in the gendered turnout effects of parenthood, and all variation in the said gap materializes suddenly and persistently in post-children elections. Appendix A.5 shows levels of parental turnout in elections around childbirth. While future fathers and mothers share similar participation rates just before parenthood (that is, $\tau < 0$), in later elections paternal turnout exceeds maternal turnout by around 2 p.p.

In columns 4 and 5 of Table 3, we examine whether the effects of child-rearing vary along proxies for the parents' gender attitudes. Our results show that the demobilizing effects of young children on mothers are stronger in families where both parents originally come from the (more conservative) south of Italy (Alesina and Ichino 2009).²⁵ We also find that the negative effects of having young kids on maternal turnout are muted among unmarried parents, who likely hold relatively progressive gender attitudes. Interestingly, the arrival of children also appears to boost the political participation of unmarried males to the level of unmarried females, a process that mirrors the equalizing effects of marriage. However, our results indicate that parenthood tends to veer women and men towards different turnout trajectories.²⁶ Despite the growing number of never-married parents, more traditional families remain the norm in northern Italy (see Background section).

Conclusion

We offer new theories and evidence to explain why women vote more in some circumstances than men in others. The longitudinal analysis of large-scale administrative data from northern Italy reveals that women's and men's turnout trajectories over the life course depend on the household-level context they find themselves in. We find, first, that marriage increases men's turnout to the higher pre-marital levels of their wives. Our results shed light on the important role played by mobilization within the family in the political integration of low-income men, which raises concerns about the consequences of rapidly declining marriage rates on participatory inequality. Second, we find that parenthood has both mobilizing and demobilizing effects, but tends to disadvantage mothers, particularly so when kids are young. Importantly, we find that this asymmetry is stronger among more traditional families, particularly so among internal migrants from the south of Italy, though it is weaker among the growing number of never-married parents. In addition, we provide suggestive evidence that the negative effect of motherhood on turnout is mitigated if women go back to work after childbirth.

Our data offer theoretically important scope for generalization. First, much recent work focuses on Scandinavia because of the availability of high-quality register data. We broaden the literature by providing comparable evidence from another established democracy, where female levels of education and labour force participation have also increased, but where traditional family structures are more important, and where parental leave is relatively short and mostly restricted to mothers. Second, civic traditions are strong in our setting (Putnam, Leonardi, and Nanetti 1993), thus making it plausibly harder to find any effects on voter turnout. Third, by analyzing one case in depth over time, our study sheds light on the intersectionality of gender with economic stratification and migration, on the link between demographic patterns in

²⁵These effects are slightly weaker if only one parent was born in the south, but they are relatively stronger if the migrant parent is the father rather than the mother (see Online Appendix Table A5).

²⁶In Appendix A.7, we explore whether the gendered effects of children on turnout are more or less pronounced when voters stop working (or start working part-time) after having children. To proxy for changes in occupational status, which we do not observe in our data, we look separately at voters who, in the first election with children, earn less than 70 per cent v. 70 per cent or more of their income in the last election without children. Despite being far from conclusive, our evidence is suggestive of the disproportionate negative effect of children on maternal turnout being stronger for voters who, after giving birth, earn less than 70 per cent of their income in the last election without children.

marriage and fertility, and on trends towards lower and more unequal participation in established democracies.

Policy-wise, we find that the presence of young children (0–5 years old) has a negative effect on maternal turnout that lasts over several years. This may be surprising given that northern Italian regions have adopted progressive welfare state policies including easy access to pre-kindergarten childcare, and that prior work in the Scandinavian context finds that mothers' participation recovers quickly after giving birth (Bhatti *et al.* 2018). The considerable heterogeneity we find in our data-comparing never-married parents with internal migrants from the south of Italy points to gender attitudes as an important moderator of the contextual effects of parenthood. However, our results also suggest that policy interventions that facilitate Italian mothers' return to the labour force after childbirth – such as publicly-funded pre-kindergarten childcare (Cascio, Haider, and Nielsen 2015) – have positive effects on democratic participation. Another policy implication of our study is that recent demographic trends – particularly, secular declines in marriage rates – make it even more difficult to encourage low-income men to vote.

Finally, our results highlight the need for more studies focusing on the family as a unit of analysis. First, although we estimate separate models for marriage, cohabitation, and parenthood, including a host of controls, our longitudinal research design cannot always sharply distinguish between coincidental events, leaving a more precise examination of different changes in household composition open to future research. Second, marriage and parenthood primarily affect young and middle-aged adults. Further work may investigate the possibly gendered effects of life cycle transitions among the elderly, including retirement and moving to a nursing home. Third, our suggestive evidence that voter turnout increases among mothers who return to work after childbirth seems to contrast with recent work showing that the ambition to run for office decreases among working mothers with breadwinning responsibilities (Bernhard, Shames, and Teele 2021). This calls for more household-level research to study the consequences of the long-awaited economic parity between women and men on various forms of political behaviour.

Supplementary material. Online appendices are available at <https://doi.org/10.1017/S0007123422000680>.

Data Availability Statement. Replication Data for this article can be found in Harvard Dataverse at: <https://doi.org/10.7910/DVN/BMJDOG>.

Acknowledgements. Marco Bertoni, Andrea Mattozzi, as well as conference and seminar participants at SEHO 2018, EEA-ESEM Cologne 2018, APSA 2019, EUI, IEB, the University of Montreal, and Harvard University, gave excellent feedback about the study – and we are grateful to them.

Financial Support. None.

Conflict of interest. None.

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