Gender Norms and Gender Gaps in Political Participation in Unified Germany

(Provisional Working Title)\(^1\)

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Abstract

Over the past two decades, many countries around the globe have made great improvements in eradicating gender gaps in many aspects of public life. Yet, recent data suggests that gender gaps, especially in politics, have stagnated. Academics, policy makers and political pundits suggest the cultural barriers to gender equality based on traditional norms about gender roles might go a long way explaining this stagnation. To empirically examine the complex relationship between policy programmes, gender norms and political gender gaps has proven extremely difficult most likely due to drawbacks associated with the use of typical cross-national data, such as unit heterogeneity or endogeneity. This study exploits the separation and unification of Germany to shed more light on this important relationship. By focussing on the German case and drawing upon data from the German General Social Survey (1990-2012), we can gain causal leverage by comparing differences in citizens’ attitudes towards gender and their impact on political participation across birth cohorts in the two German regions that were socialised in starkly different gender regimes. Two important findings stand out. First, we show that gender policies matter. While birth cohorts in East and West who were socialised before or after the Cold War display similar gender attitudes, we find significant differences between the East and West for birth cohorts socialised during Cold War: those from the West hold conservative gender attitudes compared to those from the East. Second, we demonstrate that these differences in gender attitudes have important effects for gender gaps in political participation. Overall, the political gender gap in the East tends to be smaller compared to the West, and traditional gender attitudes are on average negatively correlated with political participation and that the relative negative effect is greater for women than for men. This finding is robust when we deal with endogeneity concerns. Our evidence lends credence to the claim that an adverse gender culture might indeed by an important impediment to the closing of political gender gaps.

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Introduction

Western democracies have made great strides in eradicating gender gaps in politics in the recent past. Even though women’s overall position has improved significantly compared to the early 20th century, economic, social, and political power is to this day unevenly distributed between the sexes. Considering the trajectory of achievements over past decades, it is likely that realising gender parity is simply a matter of time. Yet, recent data suggests that gender gaps (specifically their economic and political dimensions) are no longer clearly diminishing. Indeed, in some countries, they appear to be widening again. The persistence of gender inequalities in the social, economic and political domain invites a host of questions about the root causes of gender gaps and on the effectiveness of political measures in eradicating these structural inequalities.

Over the years, the investigation of gender gaps in politics has gained a strong foothold in our discipline. This important and growing body of work has demonstrated the importance of favourable party and institutional structures, of female role models, and of women’s positive perceptions about their qualifications to run for office or their fitness for the electoral process, on increasing women’s engagement in politics. What is more, there also appears to be a growing recognition that one of the underlying barriers to closing gender gaps in politics may be the existence of an adverse gender culture, that is to say the persistence of traditional norms, attitudes, beliefs and values about the role of men and women.

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2 We define gender gaps as referring to the difference in the proportions of eligible men and eligible women engaging in a particular type of activity, such as voting or labour force participation.


women within public life. Yet, thorough analyses of gender culture, its determinants and ramifications remain scarce. This might be partly due to drawbacks associated with analysing the roots and effects of gender culture using cross-national data, such as unit heterogeneity or endogeneity for example. This study aims to offer a partial remedy to some of these issues. We examine both the determinants and the consequences of traditional gender attitudes on citizens’ political engagement within unified Germany. The German case allows us to leverage differences in gender attitudes amongst males and females and their impact on political participation across generations that were socialised in very different ‘gender regimes’. Whereas the former German Democratic Republic (GDR, East Germany) actively propagated female participation in the labour force and gender equality norms at least at the workplace, former West Germany (Federal German Republic, FGR) during the same period was characterised by a strong adherence to the male-breadwinner-female-carer model which was a keystone of the conservative welfare state as Esping-Andersen once put it. Contrary to a typical analysis based on cross-national data, the unique German setting allows us to get closer to identifying the effect of very different gender policies pursued in the East and West Germany on gender culture and their subsequent effect on political gender gaps as the gender policies and attitudes in East and West of Germany were very similar before separation. Surely, we cannot claim that we address all problems associated with causal inference here, but our reliance on the German case allows us to make considerable headway in this regard, especially given that gender policies and gender culture cannot be assigned randomly.

We argue and empirically substantiate that socialisation experiences in the starkly different gender regimes in East and West during the Cold War engrained in its citizens vastly different gender perceptions (more progressive in the East and more traditional in the West) and that these different perceptions in turn affected gender gaps in political engagement (these should be more pronounced amongst generations socialized in the West). We analyse the gender attitudes and differences in political engagement between men and women within different birth cohorts using the German General Social Survey data (1991-2012). In line

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with our expectations, our findings indicate that while we find no differences in gender attitudes between birth cohorts from the East and West who were socialised before or after the Cold War, a significant difference in gender attitudes exist for the Cold War generation. Specifically, when we compare the gender attitudes for birth cohorts socialised during the Cold War within the old federal states and the new federal states, we find that those from the West hold much more traditional gender attitudes compared to those from the East. Echoing the insights of previous studies on the possible effects of German separation\textsuperscript{10}, we argue that these findings can be attributed to gender regime type differences in the former West Germany and the GDR. What is more, our results show that these gender attitudinal difference have important consequences for our understanding of gender gaps in political participation. The political gender gap in the East tends to be smaller compared to the West, and traditional gender attitudes are on average negatively correlated with political participation, especially women’s. Finally, while dealing with the possible endogenity between reported gender attitudes and political behavioural intentions, we highlight that traditional gender attitudes have a negative causal effect on political engagement.

Our findings have important implications for the study of political gender gaps as well as the role of institutions in shaping citizens’ perceptions. Our study highlights the often neglected adverse role of traditional gender norms on citizens’ participation, especially among women. Our evidence from Germany seems to suggest that political programmes designed at conserving or indeed alleviating societal gender roles more universally are able to affect the gender culture dominant in a society as well as the size of political gender gaps. Our study outlines the cultural barriers to gender equality and therefore informs the on-going societal debate about the persistence of gender gaps. Finally, our findings also speak to the literature about the way institutions affect political culture. Our findings suggest that gender policies may have a subtle yet important effect on political engagement in that they strengthen cultural norms about who should participate most actively in public life.

We proceed in three steps. We first define the central concepts and review the relevant literature on gender gaps with an emphasis on research about the relationship between gender norms and political participation. We then establish the suitability of our case

Germany for our question before discussing our data and research design, and finally, we present and discuss the results of our statistical analysis.

Institutions, Gender Norms and Political Participation

Causes for the existence and persistence of gender gaps in politics have been variously examined through historical, social, economic, or institutional lenses, or in terms of demand and supply side factors. Some scholars have stressed the role of political and social structures such as, for example, the type of electoral system or the beneficial effects of quotas and other positive discrimination measures in increasing women’s participation in formal politics. Other scholars have focused on resource-based explanations, the socio-economic determinants that usually help predict political engagement such as individual wealth, income, time, or access to networks. Specifically with regards to women’s representation, researchers have highlighted the dynamics of supply, the number of women viewing themselves suited or able for a political career, and and demand, the number of women chosen by parties or the electorate to hold political office. Our focus here is only on the supply side dyad.


15 Cau, "Women's Representation in Parliament: The Role of Political Parties". Kittilson, Challenging Parties, Changing Parliaments: Women and Elected Office in Contemporary Western Europe. There are a number of interesting studies, primarily undertaken in the US, on the relationship between gender stereotypes and demand side factors in politics such as voter support. Interestingly, many recent studies have found little or no evidence that women are disadvantaged in terms of their chances of being elected by voters. For example, see Jordan Brooks, Deborah (2013) He Runs, She Runs: Why Gender Stereotypes Do Not Harm Women Candidates. Princeton: Princeton University Press.
In recent years, scholars have become increasingly interested in the cultural factors that may influence women’s political participation. Seminal among the body of studies on the relationship between women’s political participation and culture is Inglehart and Norris’ *Rising Tide: Gender Equality and Cultural Change around the World*. Using cross-national data from the World Value Surveys, the authors demonstrate that discriminatory attitudes toward women are negatively correlated with women’s representation in national parliaments, even when other structural and institutional factors, such as the type of electoral system, are controlled for.\(^{16}\) Research by Paxton and Kunovich has come to similar conclusions, showing that cultural norms limit women’s opportunities to participate in politics despite the presence of favourable political systems.\(^{17}\) Indeed they demonstrate that the effect of gender ideology is substantially *stronger* than the effects of political variables such proportional representation systems. In a similar vein, many other empirical studies all suggest that cultural attitudes toward women correlate in significant ways with the existence of gender gaps in politics.\(^{18}\)

The idea that cultural norms matter in political life is far from new. Almond and Verba’s classical study the *Civic Culture* was among the first to scientifically investigate the role of political culture for participation in politics.\(^{19}\) We apply the concept of political culture, those ‘attitudes and orientations’, which ‘shape citizens’ political behaviour’ to gender.\(^{20}\) We argue that citizens’ attitudes not only toward the political system, actors or politics themselves, but also toward gender roles are bound to impact their likelihood to become politically active.\(^{21}\)

\(^{16}\) The authors compare cross-country aggregate data of sixty-one nations between 1995 and 2001. Inglehart and Norris, *Rising tide*, 144. See also Norris and Inglehart, "Cultural Obstacles to Equal Representation", 135.

\(^{17}\) Paxton and Kunovich, "The Importance of Ideology", 101.


\(^{21}\) Gender attitudes or gender culture, as such, refer to the ‘norms and values about the desirable “correct” form of gender relations [which form] a main reference point for the behaviour of actors—both at the level of institutions (like the welfare state and firms) and at the level of everyday life.’ Pfau-Effinger, Birgit (1998) "Gender cultures and the gender arrangement—a theoretical framework for cross-national gender research." *Innovation: The European Journal of Social Science Research*. vol. 11(2): 147-66. 150. Research on gender norms operates with a number of different concepts including gender culture, gender ideology, gender stereotypes, gender role attitudes, feminist attitudes or gender egalitarianism. The lack of a common terminology is indicative of both the topic’s conceptual complexity and of its persistent marginal status in the political science discourse.
We are particularly interested in the effect of traditional gender norms on citizens’ participation by which we mean those views and beliefs, which are essentialist in that they assign certain traits, characteristics, or roles of responsibility predominantly to one sex.

Amongst a host set of factors such as female labour market participation for example, government policies can be expected to be crucial for the development of gender norms. Although there is an extensive body of literature on gender and welfare state regimes, the role and the long-term effects of government policies on citizens’ gender ideology have rarely been systematically considered. Indeed, there is a gulf between qualitative studies on gender regimes and political structures on the one hand, and quantitative studies on social, socio-economic, and demographic gender attitude determinants on the other. This may be due to the fact that the relationship between institutions and norms is far from linear or straightforward. Indeed, it is highly endogenous. Institutions usually mirror and ‘reinforce the societal norms ... that led to their establishment’ and they are adjusted and re-negotiated to respond to the needs and priorities of states and their citizens at particular points in time. We argue that the German case can shed more light on the complex relationship between institutions and gender norms beyond existing cross-national studies as it allows us at least partially isolate very different type of gender policies on citizens’ gender norms, but also the effect of these norms on gender gaps in political participation. Let us explain the German case more in-depth.

The Case of Germany

Before the Cold War the role of women was marginalised in German political life. Though women gained the right to vote and to stand for election in the Weimar Republic, they remained starkly underrepresented in the formal spheres of politics. Throughout the 1920s and early 1930s, women constituted an average of little more than 7% of members of the Reichstag and no woman was represented in the upper house, the Reichsrat, or in the cabinet. Nevertheless, the ‘Golden Twenties’ also marked the cultural emergence of a ‘new type of woman’, which was characterised by a more confident, intellectual, and ambitious

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22 Banaszak, "Citizens' Attitudes toward Women's Roles in Germany", 30, 34.


disposition - women were becoming increasingly defiant of conservative gender roles. However, things took a dramatic turn with the Nazi’s coming to power in 1933. According to Evans, it marked the beginning of ‘one of the most violently antifeminist regimes of modern times.’ The radical redefinition of gender roles, womanhood, and sexuality in accordance with the fascist ideology played a crucial part in Hitler’s plan to establish a pan-German racial empire. Both Nazi policies and Nazi propaganda forcefully promoted a conservative ideal throughout the country in which women were defined primarily in terms of their fertility and motherhood. Loroff notes that, ‘Nazi ideals on the role of women in society’ were directly opposed to the ‘cultural decays’ of the Weimar republic, which had granted women new political and social freedoms. After the abolition of female suffrage in 1933, women were swiftly excluded from all aspects of political life. Nazi gender norms and their political significance and motivations are well documented in the literature.

In the aftermath of the Second World War, Germany infamously split into two opposed political, economic, and ideological regimes, the socialist, Soviet controlled German Democratic Republic and the social welfare democracy under the auspices of the Western allies, the Federal Republic of Germany. The formal establishment of the two countries, as Rohrschneider observes, marked ‘the beginning of a monumental social experiment; for in both systems, the political culture had to be reconstructed to conform to the new regimes.’ Although the starting point of both regimes after the war when it comes to gender policies was equal, the two political regimes’ stances on gender relations were as divergent as their approaches to regulating the economy. The dominant strategy of the conservative post-war West-German government was to propagate a gender regime that idealised women as

30 As Kolinsky points out, the Nazis categorically “objected to women holding electoral political and parliamentary office.” Kolinsky, Women in West Germany, 11.
mothers and housewives devoted to their ‘natural’ calling of home and family life. Employment, education, and childcare policies explicitly promoted a traditional gender hierarchy positioning men as the breadwinners and women as housewives and mothers.

Even though some changes were implemented to strengthen women’s position throughout the 1970s and 80s (largely as a result of the second feminist movement), West German political structures continued to produce patterns of exclusion that reinforced women’s underrepresentation and marginalisation in all areas of public life, the labour market, and politics.

The GDR, by contrast, depended on women’s participation in the labour market. Female emancipation was engineered from above and partly accomplished through women’s integration into the workforce and through the socialisation of child-care. As a result, over 90% of East German women worked outside the home, compared to only 55% of West German women. Though far from democratic, the proportion of women in the East German Volkskammer too was on average more than three times higher than in the West German Bundestag throughout the 40-year Cold War period. Even though women’s roles in the private sphere may have been similar across the two Germanys, the political doctrines on women’s role in public life were starkly different. By drawing on the notions of institutional learning, the idea that ‘that an individual absorbs those values and norms that a


34 Until the late 1950s, for example, women were only allowed to take up paid work with their husband’s expressed permission. Even if women did work, the Civil Code maintained that their principal contribution to the support of their families consisted of ‘reproductive’ (domestic) work, and that they should seek paid employment only if this decision did not interfere with their duties as mothers and wives. Schissler, Hanna (1993). "Women in West Germany from 1945 to the Present." In: Huelshoff, Michael G., et al. From Bundesrepublik to Deutschland: German Politics After Unification. Ann Arbor: University of Michigan Press. 117-36. 122.

35 Examples include the coming into force of the equality principle in civil law (Gleichberechtigungsgesetz auf dem Gebiet des Bürgerlichen Rechts, 1958) and the reform of marriage- and family law (Reform des Ehe- und Familienrechts, 1977).


38 The political framework of the SED state legally secured women's equality to men (Article 7 of the GDR constitution), women's right to abortion, equal pay for equal work, and free choice of profession (Article 18). The introduction of the mother- and child act (Mütter- und Kinderschutzgesetz, 1950), an independent family law (Familiengesetzbuch, 1966), and other advances in family support policies (Familienförderungspolitik) further strengthened women’s rights as mothers and workers.

39 Einhorn, Barbara (1995) "Feminism in crisis or an opportunity for renewal? The east German women’s movement and difficulties in east-west German communications." East German Papers (University of Reading, Centre for East German Studies) vol. 1. 55.

40 However, both the political regime and the political elites of the German Democratic were still deeply paternalistic. Montgomery, Kathleen A. (2003). "Introduction." In: Matland, Richard E. and Montgomery, Kathleen A. IIWomen's Access to Political Power in Post-Communist Europe. Oxford: Oxford University Press. 1-18. 6. The East German politburo, the executive committee of the ruling SED, did not have a single female voting member throughout its existence.
political system instils in citizens’, we develop the following hypotheses that are derived from the assumption that the socialisation in the former GDR, with its strong institutional emphasis on female labour market participation, engrained a gender culture different to that in West Germany. Our second and third hypotheses concern the effect of traditional gender attitudes on political participation among citizens in unified Germany. Overall, we test three hypotheses:

**Gender Regime Socialization Hypothesis (H1):**

Citizens in East Germany hold less traditional gender role attitudes than citizens in West Germany, and the difference in gender attitudes is greatest among birth cohorts socialised within the Cold War period compared to those socialised before or after.

**Gender Gap in Political Participation Hypothesis (H2):**

The gender gap in political participation is smaller in East Germany compared to West Germany, and this difference is most pronounced among citizens who were socialised during the Cold War respectively.

**Traditional Gender Attitudes Effect Hypothesis (H3):**

Those who hold traditional views on gender roles are less likely to participate politically than those who hold liberal views on gender roles, and this negative effect is longer amongst women.

**Data and Operationalisation**

In order to test our hypotheses, we rely on the biennial accumulative data from the German General Social Survey (ALLBUS, 1980-2012, we focus on 1990-2012 data that includes respondents from both the East and West). Our empirical analysis consists of two parts. We first test the differences in gender attitudes in the new and old federal states and across generations. Subsequently, we examine the relationship between gender attitudes and political participation.

How can we capture citizens’ gender norms? We rely responses to six statements included in the ALLBUS survey that relate to citizens’ views about gender roles:

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I. 'A working mother can establish just as loving and secure a relationship with her children as a mother who doesn't work'

II. 'It is more important for a wife to help her husband's career than to have one herself'

III. 'A pre-school child is likely to suffer if his or her mother works'

IV. 'It is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family'

V. 'A child actually benefits from his or her mother having a job rather than just concentrating on the home'

VI. 'A married woman should not work if there is a limited number of jobs and her husband is able to support the family'

For each statement, there are 4 possible responses ranging from 1 (strongly agree) to 4 (strongly disagree). Each variable was recoded in such a way that 1 corresponds to egalitarian and 4 to traditional attitudes toward gender roles. Traditional attitudes are understood to be those, which view women’s responsibilities to be primarily in the private sphere, i.e. agreement with statements II to IV, and VI, and disagreement with statements I and V. Mokken Scale analysis demonstrated to us that responses for these statements could be grouped on a scale. A single variable for traditional gender attitudes was therefore generated, taking values from 1 (most egalitarian outlook) to 19 (most traditional outlook).

In the second stage of the empirical analysis we explore the effect of gender norms on political participation and differences among men and women. Due to space constraints we only present results for party membership, but our Supporting Information provides similar results for political interest, union membership, and voter turnout which support the party membership findings (see Table SI.2 in the Supporting Information). Why party membership? In Germany the role of parties as the state’s principal political actors is constitutionally enshrined.\(^42\) In effect, this means that individuals wishing to influence political life at the local, regional, and national level will almost necessarily have to join a political party. The same applies to citizens aspiring to hold political office. In Germany, party membership among men has been almost twice as common as party membership among women throughout the past twenty years (see Figure 1).\(^43\)

\(^{42}\) Article 21 of the Basic Law states that, ‘Political parties shall participate in the formation of the political will of the people. They may be freely established. Their internal organization must conform to democratic principles…’

\(^{43}\) As of 2011, the three parties with the highest percentages of female members in Germany are Die Linke, the Greens, and the SPD. In both parts of the country, parties on the left of the political spectrum do better in terms of female membership than parties on the right. In addition to ideological differences between them, one of the often-cited reasons for this has been the comparatively more rigorous implementation of internal gender quotas among parties on the left. Die Linke and the Greens operate with strict quotas of 50 per cent while the SPD and the CDU operate with
gatekeepers to political power in Germany, low membership of women also translates into their underrepresentation as candidates in German national and regional elections. According to a report by the European Academy for Women in Politics and Business published in the wake of the 2013 German national elections, only a rough quarter (25.8 per cent) of all candidates were female. As such, any scholarly analysis of women’s underrepresentation in parliaments should consider women’s participation in political parties.

Figure 1 Party Membership in East and West Germany by Sex

![Graph showing party membership in East and West Germany by sex](image)

Notes: Percentage of respondents who stated to be members of a party. Source: ALLBUS 1980–2012.

There are considerable variations between German parties in terms of female membership rates. As of 2011, the three parties with the highest percentages of female members in Germany were Die Linke, the Greens, and the SPD (see Figure SI.2 in the Supporting Information). One of the often-cited reasons for these variations is believed to be the comparatively more rigorous implementation of internal gender quotas among parties on the left. Die Linke and the Greens operate with strict quotas for women of 50 per cent. The SPD has a near-parity quota (according to which no less than 40 per cent and no more than 60 per cent of party candidates should be of a single sex). It would seem reasonable to assume that women are more likely to join a political party where gender issues are taken into

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soft (voluntary) quotas of between 33 and 50 per cent. Yet, even among the left-leaning SPD, only little more than 30 per cent of its members are women.

44 Chojecka, Julia and Lukoschat, Helga (2013) "Deutschlandreport. Eine Analyse der Aufstellung von Kandidatinnen und Kandidaten für die Bundestagswahl 2013 unter Gleichstellungaspekten." Berlin: Europäische Akademie für Frauen. Among the 5 major parties, 29.7 per cent of contenders for direct district mandates and 37.8 per cent of state party lists candidates were women. Despite this, women made up 36.5 per cent of the final number of national MPs. Indeed, this shows that women in Germany are not discriminated against at the ballot box, but rather earlier, at the party selection stages.

45 Such gender quotas usually operate by means of reserving places for female candidates on state party lists, irrespective of the proportion of female party members.
consideration and where they have better chances to progress through party ranks. However, Davidson-Schmich finds that German party quotas have in fact not had this anticipated symbolic effect and have largely failed to entice women to join in greater numbers.\(^{46}\) Indeed, Davidson-Schmich points out that ‘German parties now contain fewer women than they did in the 1980s when quotas were first introduced.’\(^{47}\) Therefore, it appears that the existence or non-existence of positive discrimination measures alone cannot explain the overall gender gap in party membership.

This study considers in what ways traditional gender attitudes may contribute to this situation in which fewer women than men join political parties in Germany (Hypotheses 2-3). In addition, we also consider the effect of sex and being from the new or old federal states (Hypothesis 1).\(^ {48}\) With regards to the East-West predictor variable, we are particularly interested in the differences in attitudes and participation between cohorts socialised during the Cold War and Germany’s separation as well as those socialised before or after. We therefore also include birth cohort dummies based on respondents’ year of birth. When aiming to study the effects of socialisation in very different gender regimes on gender attitudes by means of birth cohorts is not straightforward.

For one in order to attribute any differences in gender attitudes among birth cohorts in East and West Germany to the imposition of two different political systems after World War II and during the Cold War, we need to be able to demonstrate that citizens in both parts of the


\(^{47}\) Loc. cit. See also McKay who argues that while quotas ‘have increased the number of female politicians’ in Germany, they ‘do not automatically guarantee equal access to positions of power for both sexes.’ Mckay, Joanna (2006) "Women in German Politics: Still Jobs for the Boys?" *German Politics.* vol. 31(1): 56-80. 57.

\(^{48}\) We use dummy variables for sex, as well as for East Germany. The place of birth of respondents has not been documented in the ALLBUS survey for each survey year. To retain the largest possible sample size in each model, the explanatory variables East and West therefore refer to the territory in which the interview was conducted rather than the place of birth of the respondent. This operationalisation creates concerns over the robustness of the findings as it fails to control for East-West migration. ALLBUS also contains a variable for the state in which the respondent grew up for a number of survey years. Pairing this variable with information on where the respondent was born and the state in which the interview took place, we were able to identify those respondents who moved from East to West after birth or after their childhood for all survey years in which information on gender attitude is available, with the only exception of survey year 1994. The data for survey years 1991-1994 and 2000-2012 include 310 respondents who were born or grew up in West Germany but who lived in the East at the time of the interview, and 1,115 respondents who were born or grew up in an East Germany and were interviewed in the West. Considering the disproportionate number of citizens moving from the new to the old federal states after unification, these figures are not surprising. In effect, the numbers of observations for regional migrants included in the dataset are too small to make a significant difference to the below results. While the regression tables in the main text therefore use the explanatory variable East (place of interview), we re-ran all regressions excluding East-West and West-East migrants from the sample which did not change the results (see Table SI.1 Supporting Information). In addition, all regressions in the main text were also run with federal state dummies to account for potential regional variation between federal states. Figure in the appendix displays mean gender role attitude scores for each federal state by female employment rate (including women’s self-reported full-time and part-time employment) from 1991 until 2012. Due to the fact that the effects of federal states in East and West Germany respectively are so similar in size they are not included in this paper.
country were in fact alike before the country’s separation. Ideally, we would have relied on quantitative data on citizens’ gender attitudes before 1949, but these are non-existent. Yet, as we will show in the subsequent empirical analysis the gap in gender attitudes between East and West among birth cohorts born in 1918, that is to say citizens who were in their early thirties or older at the time of German separation, are statistically indistinguishable from each other which seems to indicate that birth cohorts from both parts of the country who we socialised largely before the Cold War were in fact very alike when it comes to their attitudes about gender. A number of qualitative and quantitative historical sources on gender and family norms in 19th and early 20th century Germany supports this idea. The fact that historical sources do not identify differences between Eastern and Western parts of the German territory prior to the Cold War is an indicator for the lack of significant disparities in the two regions at that time. This is in line with the view that during the Second World War the Nazi regime tried to impose a uniform policy program across the program. Moreover, studies examining fertility, marriage- and female employment rates from the first half of the twentieth century show no divergence across the two German regions. In addition, women’s representation in state parliaments throughout the Weimar Republic is also similar in Eastern and Western states. This would suggest that we can expect policies and gender role perceptions prior to the Cold War to have been quite similar across the Eastern and Western parts of Germany.

In addition, we need to distinguish birth cohorts from age effects based on respondents being at the same point of their life cycle and period effects based on respondents being exposed to the same contemporaneous events. The starting point for such estimation is typically the Age– Period–Cohort (APC) model. The well-documented problem with these models is that only two of these effects can be identified as Age (years since birth), period (year), and cohort (year of birth) are exact linear functions of each other. Traditionally, researchers aimed to overcome this problem by grouping individuals born across adjacent

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51 Boak, "Women in Weimar Politics", 377.


years into cohorts, yet this approach demands researchers to make quite strong assumptions about which birth years to group together and which cohorts to include. As such this approach has been criticized recently in statistics\(^{54}\), sociology\(^{55}\), in economics\(^{56}\), and in political science\(^{57}\). An alternative approach to solving the APC identification problem imposing no assumptions about the correct grouping across adjacent birth years or the functional forms of effects is to use annual birth cohorts and a control group to aid in the identification of cohort effects while also accounting for age and period effects.\(^{58}\) Like Pischke in his analysis regarding the impact of the policy change on school performance,\(^{59}\) we estimate the impact of gender policies on gender attitudes by within-cohort comparison between West and East Germany before, during and after the Cold War. If the GDR gender policy regime of the Cold War caused an increase in progressive gender attitudes compared to the FGR in the same period, this gap should be larger than the comparable gaps formed for cohorts from the pre-or post-Cold War era. Crucially, period effects are controlled in our analysis to the extent that they operate on citizens in each region to the same extent.\(^{60}\)

In the first part of the empirical analysis, we report results from an OLS regression with the gender attitudinal scale as the dependent variable, annual birth year cohorts and interactions with region. Finally, we add age and period controls as well as a set of socio-economic controls (see description below). In the second part of the empirical analysis where we examine the extent of the gender gap in party membership in East and West and the consequences of gender attitudes we report results from a logistic regression as well as an instrumental variable regression. Models in both parts of the empirical analysis include a set of socio-economic controls that capture important factors identified in the literature on gender attitudes and political participation. These include education, employment, income, occupation, marital status, religiosity as well as religious denomination and religious denomination.


\(^{58}\) See Pischke, "The impact of length of the school year on student performance and earnings: evidence from the german short school years". Dinas and Stoker, "Age-Period-Cohort analysis: A design-based approach".

\(^{59}\) Rather than comparing the affected cohorts to those who entered the same schools earlier or later, Pischke compares the affected cohorts with their same-school-year counterparts in schools where no policy change occurred. Pischke, "The impact of length of the school year on student performance and earnings: evidence from the german short school years".

\(^{60}\) Loc. cit. Dinas and Stoker, "Age-Period-Cohort analysis: A design-based approach".
interactions. In the party membership regressions we include three additional controls: household size, party preference, and democratic satisfaction.

**Empirical Results**

*Exploring Differences in Gender Attitudes across East and West*

We begin by exploring differences in traditional gender attitudes across birth cohorts in East and West Germany. Figure 2 displays the predicted traditional gender attitudes in East and West Germany by birth cohort with 95 % confidence intervals based on a fully-specified OLS regression model controlling for socio-economic background factors, specifically secondary education levels, employment status, occupation status, personal income, religious denomination, regular church attendance, interactions between religious denomination and regular church attendance, and marital status, and period and age effects. The results from the fully specified model are reported in Table SI.3 of the Supporting Information. In line with models of institutional learning and political socialisation and our first hypothesis, we would expect to see significant differences in gender attitudes between birth cohorts based not only on whether they are from East or West Germany, but also on how long they were subject to Cold War socialisation in the former East and West German regimes. We anticipate the difference between East and West Germans to be smallest among individuals socialised before German separation, older birth cohorts, and the largest for individuals socialised in the peak of the Cold War. The gender attitudinal gap among younger birth cohorts, those socialised at the end of the Cold War or after German unification, on the other hand, should be comparatively smaller or even non-existent.
Figure 2 Traditional Gender Attitudes by Birth Cohort

Notes: The figure displays the predicted traditional gender attitudes in East and West Germany by birth cohort based on a fully-specified OLS regression model controlling for socio-economic background factors (secondary education levels, employment status, occupation status, personal income, religious denomination, regular church attendance, interactions between religious denomination and regular church attendance, and marital status) as well as period and age effects. The analysis is weighted to adjust for regional oversampling; non-weighting yields identical results. For full results see Table SI.3 in the Supporting Information.


Figure 2 shows that the difference in gender attitudes between East and West is statistically significant only for the 1918 to 1970 annual birth cohorts. This is in line with the intuition guiding our first hypothesis that on average citizens in East Germany should hold less traditional gender role attitudes than citizens in West Germany, but that this difference stems primarily from birth cohorts socialised during the Cold War. Indeed the evidence reported in Figure 2 suggests that birth cohorts in East and West socialised before or after German separation do not significantly differ in terms gender attitudes. While for the West we can witness an overall steady decline in traditional gender attitudes from the 1910 to the 1990 birth cohort, which reflects the gradual introduction of more progressive gender legislation since the end of the Second World War, for the East we witness a big drop in traditional gender attitudes between roughly the 1905 and 1918 birth cohorts which then stabilises for birth cohorts after. This seems to indicate that the radical break with past gender conservative policies, especially during the time of the Nazi regime, affected citizens within the GDR. The evidence presented in Figure 2 suggests that the length of socialisation with
the GDR as such does not seem crucial as the gender attitudes of birth cohorts from 1918-
1938 are for example not significantly different compared to those from 1938 to 1958
socialised within the East for example. Interestingly, for the birth cohorts that socialised after
the end of the Cold War, we witness even a slight increase in traditional gender attitudes
compared to the West which might indicate the breakaway from comparatively more
progressive gender policies in the GDR after unification.

Overall, our results show that even after controlling for a number of compositional
explanations, we can reject the null hypothesis that there is no statistically significant
difference in the traditional gender attitudes between birth cohort socialised in East and West
Germany. Whilst the oldest and youngest birth cohorts that were socialised in pre- and post-
Cold War period display no significant difference between East and West, the birth cohorts
that were socialised during the Cold War do: birth cohorts who were socialised the longest
within the former GDR (East) hold on average much more liberal or egalitarian gender
attitudes compared to those socialised within the former FGR (West). This evidence
suggest that Cold War regime socialisation indeed mattered in shaping gender culture in East
and West Germany. What is more, our results suggest that the age at which individuals are
socialised matters, those that were in their late twenties at the start of the GDR have
developed more progressive gender attitudes compared to those that were older. Yet,
although some have argued that older birth cohorts were exposed to socialist policies for the
longest time, received the full brunt of the re-socialisation and de-nazification efforts under
the newly instated communist regime, and thus should hold most progressive gender
attitudes, a careful empirical examination of differences between older and younger birth
cohort socialised with the GDR does not support this intuition.

Exploring the Effects of Gender Attitudes on Political Participation

We now turn to the analysis of gender gaps in party membership in unified Germany. The
sex dummy coefficient in Model 1 of Table 1 shows that women are statistically significantly
less likely to be members of a political party than men. Considering the low baseline numbers
of overall party membership in Germany (see Figure 1), the negative effect of being a woman
is not only statistically but also substantially significant, with men being twice as likely to be
members of a party compared to women.

61 These results are robust when we relax either the parallel period assumption, see Figures SI.2 in the Supporting
Information.

62 Bauernschuster and Rainer, "How Sex Role Attitudes Keep on Diverging in Reunified Germany", 10-11.
Table 1 Determinants of Party Membership

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
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<td>-0.031***</td>
<td>-0.019***</td>
<td>-0.023***</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.01)</td>
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<tr>
<td>East (Place of Interview)</td>
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<td>-0.007</td>
<td>-0.009</td>
<td>-0.010</td>
</tr>
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<td>(0.00)</td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Traditional Gender Attitudes (1-19)</td>
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<td>-0.001</td>
<td>0.000</td>
<td>-0.003***</td>
</tr>
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<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
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<td>(0.03)</td>
</tr>
<tr>
<td>Women*Traditional Gender Attitudes (1-19)</td>
<td>-0.003***</td>
<td>-0.001</td>
<td>0.000</td>
<td>-0.003***</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Socio-Economic Controls</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Survey Year Fixed Effects</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Pseudo R-squared</td>
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<td>0.104</td>
<td>0.108</td>
</tr>
<tr>
<td>Observations</td>
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<td>12568</td>
<td>7934</td>
<td>7934</td>
</tr>
</tbody>
</table>

Notes: The table reports conditional marginal effects from logistic regression for discrete changes of the dummy variables from 0 to 1. All models are weighted to adjust for regional and household oversampling. Robust standard errors are given in parentheses.

The results in Model 1 also show that party membership rates are statistically significantly lower in the East. Controlling for sex and survey year effects, being from East Germany decreases the probability for party membership by almost 2 per cent. This finding is largely echoed in the literature on party membership and political participation in unified Germany. Throughout the post-unification period, political parties in the new federal states, which had been modelled according to the established West German sister organisations, struggled to generate large-scale support. A number of scholars have attributed this and the comparatively lower levels of other forms of political engagement (such as voting) in the new federal states to the phenomenon of political disillusionment among citizens in the East, following the perceived setbacks of the unification process. In order to rule out that the East-West gap is mainly driven by this disillusionment factor, we introduced a control for democratic satisfaction (as well as an interaction term for democratic satisfaction and being from the East) to the regression models. Doing so, the East dummy ceases to be statistically significant. This suggests that the socio-economic differences between East and West

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63 The latter have historically been characterised by, a ‘relatively high member/electorate ratio (membership density), (...) permanent active and organisationally strong local branches, (...) a bureaucratic but increasingly electoral-professionalised apparatus, and finally by a relatively high influence of the extra parliamentary organisation (e.g. members, party conventions, the program) in internal decision-making.’ (Grabow 2001: 25)

64 However, we would like to point out that this is by far not the only possible reason for eastern Germans’ lower levels of political participation.

65 Respondents were asked to assess (on a scale from 1 to 6) how happy they were with democracy in the Federal Republic of Germany.

66 The reader is advised to note that while there are strong theoretical reasons for including democratic satisfaction as a control variable, this is done at the expense of a significant drop in the number of observations. The inclusion of the proxy for democratic satisfaction has almost halved the number of observations in each model.
Germans as well as people’s attitudes toward the political system do a good job in explaining the lower baseline levels of party membership in the East.67

The rather more interesting question for the purpose of this analysis however is whether being from the new or old federal states affects the size of the gender gaps in the dependent variables. To test this, we interact the East German and female sex dummies and graph the effects on party membership for both sex and region in Figure 3. The results show that the political gender gap in East Germany is indeed smaller which is in line with our second hypothesis. However, the explanation for this is not to be found in Eastern women’s heightened effect on participation (as we might have expected) but in Eastern men’s lower levels of participation.

**Figure 3 Predicted Probabilities of Party Membership by Sex and Region**

![Figure 3 Predicted Probabilities of Party Membership by Sex and Region](image)

There are several lines of interpretation for the observed variation in gender gaps in East and West Germany. On the one hand, it is possible that the reduced gender gap in Eastern Germany is not due to cultural socialisation of the role of women, but due the role of men. For example, a more egalitarian gender culture could depress participation among men in

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67 Though the effects of the various control variables will not be discussed in greater detail here, it is worth highlighting that the level of education appears to have a particularly strong impact on the dependent variables, with high secondary education (compared to no secondary education) tripling the odds of being a party member.
East Germany. However, there is little evidence in any existing theoretical or empirical work for why this should be the case. A second interpretation is that there is a higher baseline rate of political engagement in the old federal states and that several factors reduce Western women’s participation from this naturally higher rate. The comparatively more prominent socio-economic differences between women and men in West Germany such as in employment, occupation, or income, might be contributing factors to a more pronounced political gender gap in the region. However, including socio-economic controls decreases the gender gap in West Germany only slightly and a significant difference remains. Thirdly, we may want to take into consideration the gender patterns of East-West migration in the post-unification period. In 2007, the Berlin Institute for Population and Development found that a significantly greater number of women than men have moved from the new to the old federal states since unification and that this has led to a ‘female deficit’ in the East German region which is unmatched in Europe. In many rural East German regions, this has resulted in a surplus of men among citizens aged 18 to 29 of up to 25 per cent. Effectively, there are simply fewer young and highly qualified women than men in the new federal states.

Yet, looking at the size of political gender gaps in East and West Germany alone tells us little about the causal process linking egalitarian attitudes to participation. There are too many unknown factors (not captured by the ALLBUS dataset) that could drive the observed result particularly in East Germany. It is more useful therefore, to introduce a separate proxy for traditional gender attitudes to the regression models and to test how its inclusion affects the observed differences between men and women in the dependent variables. By way of reiterating the rationale behind this exercise, we wish to test the assumption that citizens’ norms and value orientations toward gender roles might influence their political behaviour and the likelihood that they should join a political party. Specifically, we suppose traditional attitudes toward women to be an impediment to women’s political participation.

Model 2 in Table 1 displays the conditional marginal effects from logistic regressions for our traditional gender attitude proxy, coded from 1 (for most liberal) to 19 (for most conservative). Ceteris paribus, there is a statistically significant negative correlation between traditional gender attitudes and party membership. Holding all other variables at their mean,

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70 See Kenworthy and Malami, "Gender Inequality in Political Representation", Paxton, Pamela Marie and Kunovich, Sheri (2003) "Women's Political Representation: The Importance of Ideology." Ibid. vol. 82: 87-114.; Norris and Inglehart, "Cultural Obstacles to Equal Representation".
women’s predicted probability of party membership decreases from 4.4 per cent to 1.7 per cent along the gender attitude spectrum. As such, we can reject the null hypothesis that there is no relationship between traditional gender attitudes and political participation. Those who are less egalitarian in their views on gender roles are also less likely to join a political party.

Yet, at the crux of arguments about the negative effects of gender culture is the claim that traditional gender role attitudes affect women differently from men. The expectation is that conservative attitudes towards gender roles correlate negatively with women’s political participation, but not necessarily with men’s, thus exacerbating the persistence of gender gaps in politics. Women who believe that their main responsibilities lie at home and with their families, could arguably be expected to be less likely to engage in what is traditionally regarded a male sphere of activity. To test our third hypothesis, we introduce an interaction term for traditional gender attitudes and women to the logistic regression models (see Model 3 in Table 2). The interaction term is highly statistically significant.

Figure 4 Marginal Effect of Gender Attitudes and Sex on Party Membership

Figure 4 displays the predicted margins. As we can see, moving from egalitarian to traditional gender attitudes decreases the predicted probability of participation among women while it has a slightly positive effect on men. Moreover, the confidence intervals of the slopes show that there is no statistically significant difference in the predicted probability of participation between those men and women with the most egalitarian gender attitude score.71

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71 Once we control for socio-economic characteristics, there is a slight negative effect of traditional attitudes even among men (though the curve for women is significantly steeper). One possible explanation for this is that traditional
Robustness Check: Instrumental Variables

A potential concern regarding the results of the above binary response models is the problem of endogeneity. We assume that traditional gender attitudes have an effect on political participation, but it is also plausible that engaging in political activities affects participants’ views on gender roles. Moreover, since many of the predictors in the models are themselves correlated with gender attitudes, it is likely that the error terms are biased. In this section, we therefore attempt to isolate the effect of traditional gender attitudes on political participation by running instrumental variable regressions (IV). IV allows us to isolate the causal effect of a regressor on the dependent variable by including an instrument variable that affects the outcome variable endogenously through this regressor. The instrumental variable procedure operates in two stages. First we run a regression on the exogenous regressor(s), and then on the predicted values of this first regression. The causal estimate is the second-stage regression coefficient. Key to generating a reliable IV model is the existence of one or more appropriate instruments. Instrumental variables must fulfil two conditions: they must not be directly correlated with the error term of the regression and they must be correlated with the predictor. We identified two instruments for testing the causal effect of traditional gender attitudes on political participation. The first is the sex of the interviewer. Respondents’ combined gender attitude scores are lower (i.e. more egalitarian) when a woman interviewed them, yet the sex of the interviewer was randomly assigned. This creates exogenous variation in gender attitude scores. The second instrument for isolating the causal effect of traditional gender attitudes is the presence of the respondents’ partner during the interview. After the two-stage least squares instrumental variable regression, we ran the Sargan-Hansen test of over-identifying restrictions on unweighted data to test the null hypothesis that the instruments are valid. In addition, we looked at the Wald test statistic to reject the null-hypothesis of exogeneity. Both tests showed that instrumenting gender attitudes was possible (see Table 2).

values in general are negatively correlated with political participation. However, looking at overall membership numbers of the main German parties suggests that this is not the case. Both SPD and CDU (the main parties left and right of centre) have a membership of around 450.00 and membership numbers of the remaining parties are equally largely similar in size. It seems more plausible, therefore, to attribute this discovery to the particular kinds of attitudes recorded by the German Social Survey. That is to say, to the fact that they are only weak proxies because the survey questions are not strictly related to women in politics. Whatever the explanation, even if men’s levels of participation and engagement in politics are negatively linked with traditional views on gender roles, we would still expect the negative effect to be greater for women than for men and this is indeed the case.

Moreover, the coefficients for traditional gender attitudes are negative and highly statistically significant. The IV regression therefore shows that, ceteris paribus, traditional gender attitudes exert a negative and statistically significant causal effect on the outcome variable. As such, the instrumental variable approach lends support for the claim, that there is a causal link between traditional gender attitudes and women’s political participation.

**Conclusion**

The purpose of this study was to shed more light on the complex relationship between institutions, gender norms and political gender gaps. Specifically, it aimed to address the gap in the literature with regards to the effect of gender policies (or regimes) on citizens’ gender role attitudes as well as more crucially, the impact of traditional gender attitudes on gender gaps in political participation. We argued that divided and unified Germany presents a unique case study to disentangle this relationship.

Our findings demonstrate that while no differences in gender attitudes exist among birth cohorts in the East and West who were socialised before or after the Cold War, significant differences exist between East and West among birth cohorts socialised during the Cold War. Specifically, we find that birth cohorts from the West hold much more traditional gender attitudes compared to those from the East. Echoing the insights of previous studies.

**Table 2 Instrumental Variable Regression (2nd stage): Traditional Gender Attitudes and Women’s Political Participation**

<table>
<thead>
<tr>
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<th>Party Membership</th>
</tr>
</thead>
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<tr>
<td>Traditional Gender Attitudes</td>
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<tr>
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<tr>
<td>Female</td>
<td>-0.498***</td>
</tr>
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<td></td>
<td>(0.04)</td>
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<td>East (Place of Interview)</td>
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<tr>
<td></td>
<td>(0.06)</td>
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<tr>
<td>Year Fixed Effects</td>
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</tr>
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<td>Controls</td>
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</tr>
<tr>
<td>Wald Test</td>
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<tr>
<td>Test of overidentifying restrictions</td>
<td>0.995</td>
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<tr>
<td>Observations</td>
<td>13034</td>
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</table>

Notes: The table reports iv-probit coefficients. Models are weighted to adjust for regional oversampling. Standard errors are given in parentheses. Additional controls are age, age², secondary education status, employment status, occupation, income, religious affiliation, regular church attendance, party preference, satisfaction with democracy (and its interaction with the East), marital status, and household size. **1% level of significance, **5% level of significance, * 10% level of significance. Source: ALLBUS-Cumulation 1980-2012.
on the possible effects of German separation and paying particular attention to causal identification issues, we are able to show that these differences can be attributed to starkly contrasting gender regime from the former West Germany and the GDR. What is more, our results shows that these gender attitudinal difference have important consequences for gender gaps in political participation. The political gender gap in the East tends to be smaller compared to the West and traditional gender attitudes are on average negatively correlated with political participation, but the relative negative effect is greater for women than for men. Finally, we address issues of endogenity between reported gender attitudes and political behavioural intentions using an instrumental variable approach and show that traditional gender attitudes have a negative causal effect on political engagement and that this effect is stronger from women vis-a-vis men.

These results provide important insights into the development and stability of political gender gaps in unified Germany, but their relevance stretches beyond the German context. Our analysis uncovers an often neglected aspect of political gender gaps, namely how traditional cultural norms about gender adversely affect citizens' participation, especially women. Surely, some cross-national studies highlight differences, but our case selection allows us to study the effect of different gender regimes more rigorously through comparing birth cohorts that were socialised under two institutional configurations during the Cold War, yet are exposed to the same institutions prior the start and after the end of the Cold War. Hence, our findings are directly relevant to the vast literature on how institutions affect political participation. This study suggests that in terms of gender, welfare state institutions may have a subtle yet crucially important effect on participation, because they strengthen cultural norms about who ought to be most active in public life. Moreover, this study provides evidence to the claim that an adverse gender culture is a considerable impediment to the closing of political gender gaps in advanced industrial democracies today. Finally, these results should be of interest to scholars interested in post-communist regimes specifically. Our results demonstrate the legacy of these regimes in terms of the gender policies they promoted and the effect these had on the attitudes of ordinary citizens. What is more, our results speak to scholars examining the drastic decrease in women’s employment across East Central Europe in the 1990s as they provide evidence against the hypothesis that the majority of women exited the labour market by choice and that they experienced their working lives under socialism as a state-imposed obligation.

73 See Banaszak and Plutzer, ”Contextual Determinants of Feminist Attitudes”. Rohrschneider, ”The Influence of Institutions on Democratic Values”. Neundorf, ”Growing up on Different Sides of the Wall”. Bauernschuster and Rainer, ”How sex-role attitudes continue to differ in reunified Germany”.
References


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Lewis, Jane and Ostner, Ilona (1994) "Gender and the evolution of European social policy." University of Bremen. Available from.


Supporting Information

Figure SI.1 Gender Attitudes and Female Employment Rate Scatterplot

Notes: The scatterplot displays mean gender role attitude scores (1 = most liberal, 19 = most conservative gender attitude score) for each federal state by female employment (based on women’s self-reported full-time and part time employment) across the period from 1991 to 2012. Source: ALLBUS 1980-2012.
Figure SI.2 Proportion of Female Members in Main German Political Parties

![Graph showing proportion of female members in main German political parties from 1991 to 2011.]


Table SI.1 Party Membership: East*Female Interaction

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<thead>
<tr>
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<tbody>
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<td>Female</td>
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<td>-0.021***</td>
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<td></td>
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<td>(0.00)</td>
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<td>(0.00)</td>
<td>(0.00)</td>
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Notes: The table reports conditional marginal effects from logistic regression for discrete changes of the dummy variables from 0 to 1. All models are weighted to adjust for regional oversampling. Additional controls are age, age², secondary education status, employment status, occupation, income, religious affiliation, regular church attendance, party preference, satisfaction with democracy (and its interaction with the East), marital status, and household size. Robust standard errors are given in parentheses. ***1% level of significance, **5% level of significance, * 10% level of significance. Source: ALLBUS 1980-2012.
## Table SI.2: Determinants of Other Forms of Political Participation

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</tr>
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<td>Female</td>
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</tr>
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<td>East (Place of Interview)</td>
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<td>-0.042***</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Traditional Gender Attitudes (1-19)</td>
<td>-0.009***</td>
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<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Women*Trad. Gender Attitudes</td>
<td>-0.003*</td>
<td>-0.010***</td>
</tr>
<tr>
<td>Socio-Economic Controls: Year Fixed Effects</td>
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<td>Yes</td>
</tr>
<tr>
<td>Observations</td>
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<td>25483</td>
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<tr>
<td>Pseudo R-squared</td>
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<td>0.132</td>
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Notes: The table reports conditional marginal effects from logistic regression for discrete changes of the dummy variables from 0 to 1. All models control for survey year effects (reference category is 1991) and are weighted to adjust for regional oversampling. Robust standard errors are given in parentheses. A: Education dummies: reference category is no secondary education. B: Occupation dummies: reference category is ‘not applicable.’ C: Income dummies: reference category is monthly income of 900€ or less. D: Religion: reference category is non-religious. E: Party Preference: reference category is CDU. F: Marital Status: reference category is ‘single.’ G: Household Size: reference category is 1 person household. ***1% level of significance, ** 5% level of significance, * 10% level of significance. Source: ALLBUS-Cumulation 1980-2012.
Figure SI.3 Relaxing the Parallel Period Assumption
Figure SI.4  Number of Migrants from the new to the old federal states among 18-25 year olds by sex

Notes: The graph reports the number of migrants from the new to the old federal states among those aged 18-25, excluding data for Berlin. Source: German Federal Statistical Office 2014.