A CENTURY OF THE AMERICAN WOMAN VOTER:
SEX GAPS IN POLITICAL PARTICIPATION, PREFERENCES,
AND PARTISANSHIP SINCE WOMEN'S ENFRANCHISEMENT

Elizabeth U. Cascio
Na'ama Shenhav

A Century of the American Woman Voter: Sex Gaps in Political Participation, Preferences, and Partisanship Since Women's Enfranchisement
Elizabeth U. Cascio and Na'ama Shenhav
NBER Working Paper No. 26709
January 2020
JEL No. I0,J16,K16,N32

ABSTRACT

This year marks the centennial of the Nineteenth Amendment, which provided American women a constitutional guarantee to the franchise. We assemble data from a variety of sources to document and explore trends in women's political participation, issue preferences, and partisanship since that time. We show that in the early years following enfranchisement, women voted at much lower rates than men and held distinct issue preferences, despite splitting their votes across parties similarly to men. But by the dawn of the 21st century, women not only voted more than men, but also voted differently, systematically favoring the Democratic party. We find that the rise in women's relative voter turnout largely reflects cross-cohort changes in voter participation and coincided with increasing rates of high school completion. By contrast, women's relative shift toward the Democratic party permeates all cohorts and appears to owe more to changes in how parties have defined themselves than to changes in issue preferences. The findings suggest that a confluence of factors have led to the unique place women currently occupy in the American electorate, one where they are arguably capable of exerting more political influence than ever before.

Elizabeth U. Cascio
Department of Economics
Dartmouth College
6106 Rockefeller Hall
Hanover, NH 03755
and NBER
elizabeth.u.cascio@dartmouth.edu

Na'ama Shenhav
Department of Economics
Dartmouth College
6106 Rockefeller Hall
Hanover, NH 03755
naama.shenhav@dartmouth.edu

The November 2020 presidential election will be the twenty-sixth in which American women will have been eligible to vote. The Nineteenth Amendment to the US Constitution, adopted a century ago this August, entitled women to cast ballots – for many in their first election – on November 2, 1920. Before 1920, 15 states had granted women equal voting rights, and an additional 24 states had granted partial voting rights (Keyssar 2009; Lott and Kenny 1999). The scope of partial voting rights varied widely across states and municipalities, covering local school board elections to the national presidential election. But a Constitutional guarantee that sex could not be used as a basis of exclusion from the vote represented the crowning achievement – the "sacred right to the elective franchise," as laid out in the Declaration of Sentiments at the celebrated Seneca Falls convention of 1848.

But paradoxically, there was a great deal of speculation back in 1920 that women might not have much political influence even with the right to vote. As the story went, women would be inclined to "duplicate" the male vote, if they turned out at the polls at all. Some argued that any other outcome would be too disruptive to household harmony, and also disrespectful of the "separate spheres" that men and women had historically occupied. As late as 1940, pollster George Gallup mused, "How will [women] vote on election day? Just exactly as they were told the night before" (as quoted in Berinsky 2006, 506). Others believed that other aspects of a woman's identity – her social class, race, or immigrant status – would be more critical than her sex to her political choices. Because women were similarly distributed across these other groups, so too would be women's votes—and public policy would be little affected.

A growing literature looking at a number of outcomes challenges this narrative. A series of studies using area-by-time variation has examined the impacts of women's enfranchisement

on levels of state and municipal spending (Lott and Kenny 1999; Miller 2008), the distribution of spending across priorities, like public health and education (Miller 2008; Moehling and Thomasson 2012; Carruthers and Wanamaker 2015; Kose, Kuka, and Shenhav 2018), electoral outcomes (Morgan-Collins 2019), and downstream impacts on human capital in the short and long-term (Miller 2008; Kose, Kuka, and Shenhav 2018). The findings are consistent with survey, lab, and field evidence from a variety of settings and time periods suggesting women place higher priorities on child welfare and redistribution (for reviews, see Duflo 2012; Croson and Gneezy 2009). Thus, the evidence suggests that the women's vote translated into real impacts on policy and social welfare, even at a time – as we will show – that women participated less in the electoral process relative to the present day.

Our goal in this paper is not to revisit the immediate impacts of the Nineteenth Amendment. Rather, we aim to describe how women as political actors *have evolved* over the past century, a period when women have had *de jure* – even if not always *de facto* – full voting rights. We will focus on three sets of outcomes: *political participation* is involvement in the political process, *issue preferences* are preferences over policy outcomes, and *partisanship* is identification with specific political parties and candidates. We posit that women's potential for political influence is an increasing function of their participation and how much both their issue preferences and partisanship differ from men's. When relatively high political participation intersects with relatively different issue preferences, and there is sufficient party polarization along divisive preferences, the so-called "women's vote" may become truly pivotal to the candidates elected and the policies enacted.

To describe the evolution of the female voter in the United States, we bring together data from a variety of data sources. For the elections immediately after 1920, we do not have survey

data on voting patterns by sex, but we can draw inferences about voting behavior of women from overall changes in voting turnout. We also compile a range of survey data from Gallup polls and other sources on patterns of men and women voting back to 1940. Wolbrecht and Corder (forthcoming) contemporaneously use a similar scope of data to analyze time trends in the sex gap across a wide breadth of voting-related outcomes. To the extent that our analyses overlap, we find consistent results. However, the scale and detail of our data allow us to explore the drivers of change in data-intensive, novel ways. Paralleling analyses of the growth in women's labor force participation over time (for example, in Goldin 1990; Bailey 2006), we bring a new focus on the contributions of cohort- and time-specific factors in shaping voting outcomes.

We arrive at two key sets of findings. First, we show that the female-male sex gap in voter turnout grew substantially over the last 80 years, from a deficit of almost 10 percentage points in 1940 to a surplus of over 4 percentage points in the 2016 election. This shift has been driven primarily by an increase in women's relative turnout across cohorts, which we find is associated with the accompanying rise in education, particularly high school graduation. Second, we show that the sex gap in identification with the Democratic party rose from roughly parity in the late 1940s to almost 12 percentage points in 2017. This shift in partisanship permeated all cohorts but did not coincide with a significant shift in policy preferences. We present survey evidence consistent with observations by political scientists (see, for example, Layman and Carsey 2002; Gillion, Ladd, and Meredith 2018) that party polarization across recent decades has contributed to a widening gulf in party affiliation by sex.

While we will not attempt to provide new estimates of the real policy and economic impacts of the female voter, we provide new descriptive evidence on when and how women's potential for political influence changed since the Nineteenth Amendment. However, we urge

caution in making strong inferences from these descriptive patterns. After all, despite the higher voter turnout rates and greater Democratic partisanship of women as a whole, Republican Donald J. Trump won the 2016 Presidential election – and women are believed to have contributed. Post-election analyses have emphasized the role of divisions within women, particularly by race, which serves as a reminder that the notion of a "woman voter" is a vast simplification, as is the notion of a "man voter."[1] Exploring long-term trends in women's relative political behavior in subpopulations defined by race, education, marital status, geography, and so on is beyond the scope of the present paper but an important area for future research.

Political Participation

We begin with a new investigation of women's relative political participation since 1920. We focus on voter turnout in presidential elections, the measure of turnout that can be most consistently observed over the longest time horizon. Presidential elections also have the highest voter turnout, allowing us to observe the frontier of voter turnout for men and women alike. We consider the extent to which other participation metrics for women moved along with their turnout in a supplemental analysis to follow.

National Trends

There is not any direct data on voter participation patterns of men and women in the 1920 election, or for the several elections that follow. Thus, researchers have sought to infer the voter participation rates of women based on overall voter turnout.

---

[1] See Cassese and Barnes (2018) for analysis of the 2016 election, and broader discussions in Wolbrecht and Corder (forthcoming.)

The bold line in Figure 1 plots national voter turnout in presidential elections based on aggregation of state-level vote counts. We divide the number of votes cast in a presidential election nationally by an estimate of the total voting-age population in states with election returns.[2] We thus allow the denominator to include both men and women, even during the pre-1920 period when women were generally not eligible to vote in presidential elections. We also include non-citizens in the denominator, since a citizenship question was not consistently asked in the Census from 1900 forward.

Some states granted women the right to vote in presidential elections prior to 1920 – six states in 1912, and 12 states in 1916.[3] However, these states were concentrated in the sparsely populated West and therefore comprised a small share of the total population. If women voted at the same rate as men, then women's suffrage should have led to a near-doubling of voter turnout. Measured against this standard, women entered the electorate slowly. Between 1916 and 1920, voter turnout increased by only 35 percent, from 32.7 to 44.3 percent. However, over the next 20 years, voter turnout continued to increase basically unabated, reaching 59.8 percent in 1940.

The descriptive pattern from overall voting totals is consistent with other indirect methods. Using variation in the timing of state suffrage initiatives in addition to ratification of the Nineteenth Amendment, Kose, Kuka, and Shenhav (2019) find that women's suffrage increased voter turnout in the short term by 56 percent. Taking a Bayesian approach to data from

---

[2] The Twenty-Sixth Amendment extended the franchise to 18-20-year-olds in 1971. Thus, the voting-age population consists of persons aged 21 and older in elections through 1968, and persons aged 18 and older in 1972 and later.
[3] These included Washington, California, Idaho, Utah, Wyoming, and Colorado, each of which passed full suffrage by 1912; and Oregon, Arizona, Montana, Nevada, Kansas, and Illinois, which either passed full or presidential suffrage by 1916. See Kleppner (1982) and Corder and Wolbrecht (2016) for discussions of turnout in these early elections. An additional 16, including North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, Minnesota, Iowa, Wisconsin, Michigan, Indiana, Ohio, Tennessee, New York, Rhode Island, and Maine, passed presidential or full suffrage prior to the adoption of the Nineteenth Amendment. See Teele (2018) for a mapping of the timing of these and other voting rights (e.g. primary voting) that were passed during this period.

ten states, Corder and Wolbrecht (2016) also find substantial, and generally shrinking, sex gaps in turnout across the five presidential elections from 1920 to 1936.

To describe the evolution of the female US voter in more detail, we turn to survey data. We provide an overview of the data here, with further details in the Data Appendix. Scholars of American politics interested in long-term trends in political behavior typically rely on data from the American National Election Studies (ANES) or the General Social Survey (GSS). These surveys are detailed – and we will also use them – but have small sample sizes of around several thousand per election and start later than ideal for our purposes (1952 and 1972, respectively). To extend backward in time and obtain more data for the 1950s and 1960s, we turn to historical polling data collected by the Gallup Organization's American Institute of Public Opinion (AIPO). These data have been used on a limited but growing basis by economists (for example, Fogli and Veldcamp 2011; Kuziemko and Washington 2018; Farber et al. 2018). The standard question on voter participation first prompts respondents about whether they are certain they voted (few say no), then asks about candidate chosen. The Gallup data begin in 1936, but we start our series in 1940, the first year in which respondents are asked about their education.

With the addition of data from the November Vote Supplement of the Current Population Survey, starting in 1972, we have microdata on voting in presidential elections that span nearly 80 years: 1940 to 2016.[4] Focusing on Gallup polls conducted within two years after a given presidential election, we obtain sample sizes at least an order of magnitude higher than those available in the American National Election Studies and the General Social Survey. The

---

[4] As we discuss above, contemporaneous work by Wolbrecht and Corder (forthcoming) assembles a similar dataset to ours; however, while we pool together information from overlapping data sources to gain additional precision, Wolbrecht and Corder (forthcoming) analyze each data source separately.

November Current Population Survey similarly offers large samples that allow us to explore the drivers of trends in the sex gap in data-intensive ways.

Figure 1 includes national trends in voter turnout based on these four survey sources: Gallup polls, the American National Election Studies, the General Social Survey, and the November Current Population Survey. We use weights provided in the last three surveys to generate nationally representative statistics. For the Gallup data, we create weights from Census microdata to adjust Gallup demographics to match the distribution of the population across cells defined by year, region, education, sex, and birth cohort. Weighting of the Gallup data is especially important since the sampling approach used by Gallup into the 1950s had a goal of representing the "engaged public," rather than the population at large (Berinsky 2006). Thus, the unweighted Gallup data in early years under-represent those with less education, the South, the non-white population, and women.[5]

Regardless of the survey source or year, self-reported voter turnout is consistently higher than the administrative measure – a well-known feature of self-reports of voting (for example, see Bernstein, Chadha, and Montjoy 2001 and Ansolabehere and Hersh 2012). The administrative and survey series nevertheless move together, suggesting that the survey data capture important margins of change in voter turnout from election to election. There are also less pronounced but still noticeable differences in levels of voter turnout across surveys. American National Election Studies and Gallup data consistently produce higher turnout estimates than the General Social Survey and November Current Population Survey. However, focusing on the *sex gap* in turnout – our measure of interest – will eliminate survey effects that

---

[5] Application of the weights tends to bring these characteristics in line with national averages, as shown in Appendix Figure 1. See Data Appendix for a complete description of the weights and their creation.

are the same across sex. A recent validation study (Ansolabehere and Hersh 2012) suggests that women have similar levels of misreporting as men in the American National Election Studies.

The Sex Gap in Participation

The solid line in Figure 2 plots the difference between female and male turnout combining data from our four survey sources. Overall, the figure shows a stunning story of change. During the 1940s and early 1950s, the sex gap in turnout was roughly constant at about 10 percentage points, while aggregate voter turnout varied from election to election. In other words, women were consistently about 10 percentage points less likely to vote than men. The gap dramatically narrowed thereafter, however, reaching about a 3 percentage point deficit for women in 1964. Though the gap re-expanded somewhat in 1968, women's voter turnout rates fell relatively less over the 1970s than men's, enough that women's and men's turnout basically reached parity by 1980. Women's voter turnout continued to gain in relative terms after 1980. In the last three presidential elections, women have been about 4 to 5 percentage points *more* likely to vote than men. Because women make up more than half of the voting-age population, they became the majority of voters earlier – 1960, according to our data.

American women thus appear to have become increasingly comfortable exercising their right to vote. Is this pattern of convergence and eventual female dominance in political participation apparent in other metrics? Table 1 summarizes a series of political interest and mobilization variables available both in the 1950s and more recently in the American National Election Studies. The sex gap in some – but not all – of these measures shows a similar pattern as for voter turnout. For example, women on average used to care less about which party won an election and were less interested in elections; they also used to be less likely to try to influence

someone's vote or to display campaign paraphernalia. Sex differences in these attitudes and behaviors are now largely gone. However, sex gaps in rarer measures – being "very interested" in elections, making political donations, attending campaign rallies, and working for campaigns – have remained largely unchanged over time.

These findings thus seem to suggest a relatively dramatic narrowing of the sex gap in mass, but not extreme, political participation. At the same time, however, women's participation as elected officials – another extreme participation metric – *has* increased over time, though the sex gap still strongly favors men.[6] For example, nearly a quarter of current members of the Senate and House of Representatives are women, compared to 10 percent following the 1992 election ("the year of the woman") and less than 3 percent in the early 1950s. These statistics closely track the increasing propensity of women to run in a Congressional primary (Lawless and Pearson 2001).

Sex, Race, and Persistence of Limits on the Franchise after 1920

Not all women actually gained the franchise in 1920: in particular, black women in the South were largely excluded. Though black men were granted the right to vote after the Civil War via ratification of the Fifteenth Amendment, southern states subsequently designed a series of electoral devices – poll taxes and literacy tests at voter registration in particular – to disenfranchise them (Keyssar 2009; Valelly 2004). Historical evidence suggests that these devices similarly limited southern black women's entrée into voting booths in 1920; for example, voter turnout estimated as a ratio of votes cast to voting age population shows a weak response to

---

[6] The persistence in this gap could reflect gender differences in preferences or in socialization around political careers. A recent survey of college students suggests that women are less likely to have political ambitions but are also less likely to have received parental encouragement to run for political office (Lawless and Fox, 2013). See also Wasserman (2018), which shows that women are less likely to run again for political office after a loss.

the Nineteenth Amendment in the South, relative to other regions like the Northeast and the Midwest. However, poll taxes were eliminated by a combination of state action and ratification of the Twenty-Fourth Amendment in January 1964, and literacy tests were removed via passage of the Voting Rights Act of 1965. Civil rights activism may have also helped register southern blacks and get them to the polls, even before structural barriers to participation were removed [7]

How might this history have contributed to the evolution of the national sex gap in voter turnout? The answer to this question will depend on whether there were sex differences in the efficacy of both the disenfranchising measures and the remedies. Anti-suffragists in the South worried that it would be more difficult to use the tactics that had been applied to black men to staunch the vote of black women. One Mississippi senator said: "We are not afraid to maul a black man over the head if he dares to vote, but we can't treat women, even black women, that way" (as quoted in Keyssar 2009, p. 169). By this reasoning, southern black women would have been more likely to vote than southern black men, potentially narrowing the sex gap in turnout in the South relative to the rest of the country even early in the period. Contrary to this, Figure 2 shows that the sex gap was actually much larger in 1940 – and male-female convergence in voter turnout thereafter much more dramatic – in the southern Census region. Further exploration of the data shows that the sex gap in voter turnout in the South from the 1940s through the early 1960s was roughly the same for whites and non-whites, suggesting that forces that were unique to the region – but not necessarily to any particular race – contributed to the marked closure in the sex gap over this same period.

---

[7] See Appendix Figure 2 for the time series of turnout by region. Voter turnout in the South did not converge to that in rest of the country until after poll taxes and literacy tests were removed. See Cascio and Washington (2014) and Filer, Kenny, and Morton (1991) for causal evidence on this link using historical voting records and geographic variation in the black share of the population. We see similar patterns in our data, which affords us voting information by race (see Appendix Figure 3).

Preferences over Policies and Parties

Background: Theory and Evidence

Over the past 80 years, women's political mobilization has not only steadily converged with men's, but has overtaken it. Does this mean that women have been increasingly influential for political outcomes over time? Theoretical models suggest that the implications of women's political participation for policy may depend on not just women's turnout and policy preferences relative to men's (Downs 1957; Cox and McCubbins 1986), but also the nature of political competition. If politicians are able to implement their preferred policies (Osborne and Slivinski 1996; Besley and Coate 1997), for example, having an impact on policy would require voting for candidates with shared ideology, which could be captured by party affiliation.

In the years leading up to and following passage of the Nineteenth Amendment, women had different issue preferences than men – valuing policies that benefited children and public health and welfare and more government spending – but not dramatically different party alignment. Studies using variation in the timing of state laws enabling women to vote in state and local elections prior to the Nineteenth Amendment find impacts on policy and real economic outcomes at the federal, state, and local levels that move toward women's preferences (Lott and Kenny 1999; Miller 2008; Moehling and Thomasson 2012; Carruthers and Wanamaker 2015; Kose, Kuka, and Shenhav 2018). However, Corder and Wolbrecht (2016) show that, in the first five presidential elections in which women could vote, their votes went toward parties much the same way as those of the men in their state. This seeming contradiction may be explained by the political environment: historically, the two major parties were not well-sorted on the dimensions of public opinion along which men and women tend to systematically differ (Gillion, Ladd, and

Meredith 2018). While this was particularly the case before the 1930s (Gerring, 1998), our data suggest this pattern held as recently as the 1970s, as argued elsewhere by political scientists.

What has happened over the past 50 to 60 years? Literature from across the social sciences suggests that the sex gap in public opinion on various issues has been fairly stable in the face of dramatic social and cultural change (Shapiro and Mahajan 1986; DiMaggio, Evans, and Bryson 1996; Bolzendahl and Myers 2004; Clark 2017). And yet, the sex gap in party identification has not: there has been a dramatic relative shift of women toward the Democratic party as men have increasingly been drawn toward the Republican party (Kaufmann and Petrocik 1999; Edlund and Pande 2002; Box-Steffensmeier, De Boef, and Lin 2004; Gillion, Ladd, and Meredith 2018). Other advanced industrialized countries also experienced a relative shift of women toward more liberal political parties over the latter half of the 20th century (Inglehart and Norris 2000).

In this section, we consider the evolution of the sex gap in party affiliation and in policy preferences, and then ask: How can the sex gap in party affiliation have widened without a change in the sex gap in preferences?

The Sex Gap in Party Affiliation

Our core analysis of the sex gap in party affiliation is based on polling microdata, primarily from the Gallup Organization, on party identification spanning 1953 to 2012, generously provided by Gillion, Ladd, and Meredith (2018). For consistency with our study of the sex gap in voter turnout and in party of the candidate chosen, we limit attention to polls taken within two years after an election, summarizing these polls with an election-year average.

Applying this constraint, we use Gallup data to extend the series both backward in time to the 1948 election, and forward in time to the 2016 election, as described in the Data Appendix.

Figure 3 shows national trends in the sex gaps in identification with the Democratic Party and, for comparison, in vote share for the Democratic candidate. Estimated population shares voting for the Democratic candidate and identifying with the Democratic party are shown for context (right axis).[8] The voting series is naturally punctuated by election years with Democratic victories, but overall, there is a clear reduction in Democratic party identification between the late 1940s and early 1980s, driven by political realignment in the South (Kuziemko and Washington 2018).

The figure shows that women have been increasingly more likely to affiliate with the Democratic party – or rather, less likely to leave the Democratic party (Kaufmann and Petrocik 1999) – than men. While a divergence in party preferences of American women and men emerged in the 1960s, it took off starting in the 1980s.[9] Following the 2016 election, women were almost 12 percentage points more likely than men to consider themselves Democrats, compared to a sex gap hovering around zero in the late 1940s and 1950s. Past work using the American National Election Studies (Kaufmann and Petrocik 1999), other polling data (Box-Steffensmeier, De Boef, and Lin 2004), or the same polling data used here but with different weighting (Gillion, Ladd, and Meredith 2018) has also documented an increasing partisan sex gap in the United States, though over shorter time horizons. While we focus on average gaps

---

[8] National statistics on Democratic vote share from Gallup, General Social Survey, and American National Election Studies data map fairly well to statistics based on historical voting records, though survey reports tend to favor the winning candidate, as shown in Appendix Figure 4. Again, to the extent that this tendency is the same across sex, survey-based measures of the sex gap in partisanship should be representative.

[9] Appendix Figure 5 shows the parallel series for the Republican party. Men are now more likely to identify as Republicans than women. However, unlike in the Democratic case, the population share identifying as Republicans is not that different today than in 1948. Unlike in the case of voter turnout, moreover, there are no significant regional differences in trends in the sex gap in Democratic party identification. See Appendix Figure 6.

between men and women, recent work has shown that these gaps are often less pronounced among white voters than non-white voters (see, e.g., Cassese and Barnes 2018).

The Sex Gap in Issue Preferences

Political parties and political preferences do not necessarily align. There are no large-scale microdata asking consistent public opinion questions over the same time frame as represented in Figure 3. However, every few years starting in the 1940s, Gallup polls fielded questions concerning traits of hypothetical presidential candidates: for example, whether one would vote for a qualified woman if she were one's party nominee (starting in 1949), or for a qualified black man (starting in 1958). To these data we add responses to a similar set of questions from the General Social Survey in more recent years (until 2010). The answers provide some insight into both the magnitude of social change over the period of interest, and sex differences in reactions to it.

Even if it only represented changes in social desirability bias, the scope of social change represented in Figure 4 is breathtaking: the share of the population stating they are willing to vote for a female president rose from 47 percent in 1949 to 96 percent in 2010. Growth in the share of the population willing to vote for a black president has been even more striking, rising from 38 percent in 1958 to 97 percent in 2010. Yet, the sex gaps in both measures have bounced around zero, showing no clear trend; indeed, men have more often than not exhibited *greater* support for the idea of a female president. This is consistent with existing evidence that suggests that women have historically not used the franchise to advance their own political or economic interests as a sex.

Table 2 presents a mixed pattern of changes in the sex gap in views on various policy topics reported in the GSS between 1977 to 1986 and 2007 to 2016, the earliest and latest 10-year spans with consistent responses to our questions of interest. We summarize responses to 25 preference elicitations with seven indices, which are calculated as the mean of responses in a particular area (coded such that higher values always indicate more progressive views).[10]

In the earliest decade, 70 percent of respondents reported voting in the last election, with an immaterial gap across sexes; and 39 and 42 percent reported identifying with or voting for a Democrat, with a 5 p.p. sex gap favoring women The sex gap in issues preferences varied in size and direction. The largest absolute sex gaps were in sexuality attitudes, where women espoused more conservative views (owing to less approval of pre-marital sex), and in the criminal justice and family gender roles index, where women were more progressive. There were somewhat smaller gaps in abortion attitudes and in the progressive government and race equality indices, and opinions on the women's public roles index.

Over the next four decades of the survey, women's voting rates and propensity to identify or vote for a Democrat increased relative to men's, by 3, 2, and 7 percentage points respectively. In terms of preferences, we find a striking increase in the gap in the sexual attitudes index (9 percentage points), which includes more favorable views towards the gay community (Fernandez, Parsa, and Viarengo 2019) as well as towards premarital sex. But otherwise, the changes are minor, with inconsistent signs. To a limited degree, women have become relatively more supportive of women's public roles and less supportive of reform of the criminal justice

---

[10] These questions and groupings strongly overlap with the questions and categories in DiMaggio, Evans, and Bryson (1996). Not all questions are asked in all years, but all of the questions in the indices appear both in the early and later periods. See Appendix Table 1. Additional survey evidence from the American National Election Studies broadly confirms the patterns discussed here, in some cases with polls reaching back to the 1950s and 1960s. See Appendix Table 2 for results and details.

system. We do not see any meaningful change in relative views towards abortion, racial equality, support for government services (although women's relative support for government services to the sick does rise), or perceptions of the role of women as mothers first. These results align with previous research over somewhat shorter time horizons showing little movement in the sex gap in policy preferences (Clark 2017; DiMaggio, Evans, and Bryson 1996).

Party Polarization as Reconciliation

How can the sex gap in party affiliations have widened without an underlying change in preferences? Gillion, Ladd, and Meredith (2018) posit that the rise in Democratic identification among women since the 1970s represents a change in *sorting* across political parties, influenced by the increasing party polarization, driven by elites, and growing public awareness of that polarization (Carsey and Layman 2006). In support of this hypothesis, they show in the American National Election Studies that the gender partisan gap is larger among those who are college-educated and more aware of the polarization across parties. They also show that the weight placed on social welfare and other preferences in the partisan identification decision has increased. Thus, they argue that (i) more-educated groups would be in the best position to sort into political parties based on current party positions, and (ii) changes in these issue weights would be predicted to induce a larger response by women, given existing gaps in preferences.

In a similar spirit, we turn to the General Social Survey to investigate the scope of changes in polarization over this period and their relevance for the sex gap in partisanship. In particular, we examine the total change in the gap in policy preferences between individuals that identify as Democrats and Republicans ("party gap"), within and across sexes. This reduced-form approach is purely descriptive but provides a transparent look into these patterns over time

in a wide variety of domains. Our calculations exclude independents (which have been increasing over this time period), but we find similar patterns when we include independents who lean towards either Democrats or Republicans.

Table 3 shows that the party gap in attitudes has grown significantly in every domain for both men and women. For example, in the 1970s, the party gap in the abortion attitude index for both sexes hovered around 2 percentage points, while in the 2010s the party gap grew to 21 and 14 percentage points for women and men, respectively. The party gap in attitudes towards sexuality similarly increased more for women. On both of these issues, a substantial 22 percentage point chasm has opened across Democratic and Republican women, compared with a 15 percentage-point gap for men. On other issues, women and men have essentially converged to the same party gap, which now stands at two to three times the level of the 1970s. Particularly striking are the 20 and 30 percentage point party gaps in the criminal justice and progressive government indices, respectively.

It thus appears that the profile of the Democratic and Republican voter, regardless of sex, is quite distinct from the past. This provides suggestive evidence in line with the hypothesis in Gillion, Ladd, and Meredith (2018) that changes in party sorting across sexes can reconcile the trends in the partisan sex gap and preferences that we observe.

Drivers of Sex Gaps and the Growing Political Influence of Women

The findings thus far suggest that women are a much stronger political force today than they were immediately after adoption of the Nineteenth Amendment. Relative to men, women are now more likely to vote and more likely to identify as Democrats. What forces have

generated the large observed changes in relative female mobilization and partisanship? Stronger partisans show up more reliably at the polls (Gerber, Huber, and Washington 2010). But this need not mean that the trends in the sex gaps in voter turnout and party identification shown in Figures 2 and 3 have the same root causes.

Cohort and Time Effects

For an exploratory analysis, we categorize potential forces changing the sex gap into two mutually-exclusive groups – *cohort effects* that are constant across the life span of a given cohort, defined as a group of individuals born at roughly the same time, and *time effects* that affect individuals of all ages observed at the same time in the same way. With regard to cohort effects, experiences in early life may socialize women and men differently into (or away from) voting, and perhaps a later-life experience at the polls (or elsewhere) reinforces this early-life socialization (Gerber, Green, and Shachar 2003; Coppock and Green 2016; Fujiwara, Meng, and Vogl 2016). With regard to time effects, changes in society or in the policy stances that define parties may attract women of all ages.

Figures 5 and 6 show time trends in the sex gap in voter turnout and Democratic party identification, respectively, separately by cohort. We group birth years into nine roughly 16-year cohorts that have a large degree of overlap with generations studied by demographers. These include individuals who would have been children when the Nineteenth Amendment was ratified, born 1901 to 1916 (roughly the first half of the "Greatest Generation"), and individuals who would have been the youngest eligible voters in 1920, born 1885-1900 (the "Lost Generation"). We also include two earlier cohorts comprised of individuals who would have been exposed to the Nineteenth Amendment at mid-life (born 1869 to 1884) or older (born 1860

to 1868). Generations since the Nineteenth Amendment include individuals born 1917 to 1933 (the second half of the Greatest Generation), 1933 to 1948 (the Silent Generation), 1949 to 1964 (Baby Boomers), 1965 to 1980 (Generation X), and 1981 to 1998 (Millennials).

The patterns of Figures 5 and 6 suggest, consistent with our earlier discussion, that cohort effects have been more important for the evolution of the sex gap in voter turnout, and time effects more important for the evolution of the sex gap in party identification. While the cohort-specific time trends shown in Figure 5 are not literally flat (which is what a completely pure cohort effect would look like), younger generations typically show more positive sex gaps in turnout in every year. In addition, differences in the sex gap are on average greater across earlier cohorts than later ones, just like the sex gap in turnout shrinks at a faster pace over earlier years of our sample period. In earlier research, Prior (2010) also shows that political mobilization is remarkably stable over the life cycle, using individual panel data. Also consistent with these findings, Firebaugh and Chen (1995) show that there is an especially large sex gap in voter turnout for the earliest cohort observable in the American National Election Studies data.

In contrast, the pattern in Figure 6 is better interpreted as a time effect pattern, in which the sex gap in Democratic party identification rises over time within each cohort. The result is smaller cross-cohort differences in the sex gap at a given point in time, and a strong common upward trajectory. A regression analysis of data collapsed to the cohort-by-election year-by-state level confirms that cohort effects essentially completely explain the time trend in the sex gap in voter turnout but explain little of the time trend in the sex gap in Democratic party identification.[11]

_____

[11] The geographic unit to which we collapse is actually the single states and groups of states (27 total) identified in the 1976 November CPS. We omit the GSS from this portion of the analysis, due to lack of information on state of residence in the public-use data. We regressed sex-by-cohort-by-state group-by-year outcomes on decade indicators interacted with a female indicator in a model including fixed effects for sex, decade, state group, and sex-by-state

Can the Cohort Effects Be Explained?

The relative contributions of cohort and time effects for these outcomes map to different sets of potential causal mechanisms for the evolution of sex gaps in voting behavior. Above, we presented evidence consistent with the inter-decadal growth in relative Democratic party identification among women that cannot be explained by generational replacement: women of all ages have moved toward the Democrats as the two major parties have become increasingly divided on issues that women tend to care about. On the other hand, the growth in women's turnout appears to be largely explained by generational replacement. In this section, we consider the relevance of several cohort-varying factors for these findings.

Because our data are stratified by state, we can assess the explanatory power of both observed and unobserved factors that vary across cohorts. This is important, because some factors potentially contributing to cohort effects, like the "norms against [women's] political engagement" (Corder and Wolbrecht 2016; p. 14), will be difficult to quantify. On the other hand, other potentially important cohort-specific factors can be measured. We initially focused on educational attainment, employment rates, and divorce because they have been identified as important determinants of political behavior in prior research.[12] But because our central finding was that changes in the sex gap in turnout across cohorts tracked gains in education, we focus on the attainment results here. Even so, our findings should not be interpreted causally. We have

---

group. Appendix Figure 7 shows what happens to the coefficients on the decade-by-female interaction terms with addition of cohort and cohort-by-sex fixed effects to this model. For details and further explication of the regression, see the online Appendix available with this paper at the *JEP* website.

[12] For example, divorce and economic vulnerability have been linked to the rising sex gap in Democratic party identification in the United States (Edlund and Pande 2002; Box-Steffensmeier, De Boef, and Lin 2004).

used the extant variation, not exogenous variation, in educational attainment across cohorts and states, which may be correlated with other, unobserved state-by-cohort factors.

Baseline cohort effects in the sex gap in voter turnout, represented as an across-cohort change relative to the earliest two cohorts combined, are shown with the solid line in the first panel of Figure 7. For all cohorts beyond the first, these changes are significant both statistically and in magnitude. For example, the sex gap in turnout has been about 14 percentage points more favorable to Baby Boomer women than it was to women born roughly a century before.

To examine the role of rising levels of education in these patterns, we begin by introducing state-by-cohort controls for high school completion as of age 25, estimated from the Census and American Community Survey. Since cross-cohort gains in high school were similar by sex, we do not expect this to have much explanatory power, and in fact we see little impact on our estimated cohort effects in Figure 7 Panel A. Next we allow for changes in high school completion to have different effects by sex, thus allowing for the realistic possibility that education could have a different impact on women's political participation. Since the positive association between high school completion and lifetime political mobilization is significantly stronger for women than for men, much of the unobserved cohort effects in the sex gap in turnout fades away.[13] Though women born in the mid-1950s and later have been more likely to attend and complete college than their male counterparts (Goldin, Katz, and Kuziemko 2006), adjusting for college attendance by age 25 offers little additional explanatory power, given the comparatively weak association between college attendance and turnout in our data.[14]

---

[13] The association in our data for women is similar to that found by Milligan, Moretti, and Oreopolous (2004) for the population overall exploiting variation in completion from compulsory schooling and child labor laws early in the 20th century.

[14] We add each variable directly and interacted with a female indicator to the model outlined in footnote 11. For detailed regression findings, see Appendix Table 3.

Thus, the rise in educational attainment – or, perhaps, other correlated outcomes – appears to explain the changes in the sex gap in voter turnout across cohorts; adding sex-specific effects of high school completion in particular to the model lowers and renders statistically insignificant the contribution of unobserved cohort-specific factors. The change is especially noticeable for cohorts born in the first half of the 20th century, for whom changes in high school completion were particularly dramatic even if similar across sex. The sizable sex difference in the association between high school completion and turnout in our data could be explained by the particular role that education plays in women's lives, such as through reductions in fertility, or through other factors coinciding with the high school movement – such as advancement of social norms – that could have pushed women's voter participation up more than men's.

The solid line in the other panel of Figure 7 shows the baseline, essentially negligible cohort effects in sex gap in Democratic party identification, consistent with Figure 6. Though not associated with turnout in our data, college attendance is positively associated with increases in Democratic partisanship and more so for women. Because of the divergence of women's college attendance rates from men's across recent cohorts, holding constant college attendance thus *generates* some unexplained cohort effects. As shown in the figure, in the absence of rising college attendance, Baby Boomer, Gen-X, and Millennial women would have actually been *less* likely to identify with the Democratic party.

Taken as a whole, these descriptive findings suggest that each successive generation of women has been more politically mobilized than her predecessors, with educational attainment playing an important role. However, this is only a descriptive exercise that would be useful to revisit.

Conclusion

The female voter has come a long way since the passage of the first suffrage laws at the turn of the century, and since the passage of the Nineteenth Amendment of 1920 extended the franchise (at least in principle) to women nationwide. We trace the evolution of the sex gap in voter turnout and partisanship over the last 80 years using a novel dataset of voter surveys. We find that women closed a 10 percentage-point gap in voter turnout over the 40 years from 1940 to 1980, and over the next 40 years from 1980 to present gained more than a 4 percentage-point advantage in turnout over men. Additionally, while women and men had similar patterns of party support in 1940, over the last half-century, a 12 percentage-point sex gap has emerged in the probability of women and men identifying with the Democratic party.

What accounts for these changes? We argue that the relative rise in women's turnout is largely explained by the replacement of older, low-participation cohorts with younger, high-participation cohorts. Descriptively, we find that these cohort effects are associated with women's differential response to increasing rates of high school graduation, with less explanatory power for rising rates of college attendance. In contrast, the rise in women's support for Democrats appears to have been common to all cohorts. At least since the 1970s, this seems to be best explained by the trend towards greater polarization of political parties, as we find little evidence of any change in the gap in policy preferences across men and women.

Many gaps remain in analyzing the causes and consequences of this century of political progress for women. First, what are the causal factors behind the large rise in women's voter turnout across cohorts? To the best of our knowledge, there is no research providing a credible analysis of the link between the increase in voter participation that we have documented and the

significant advances made by women across cohorts – in educational attainment, economic opportunities, and access to contraceptive technology, to name a few – despite the fact that these changes appear to have occurred simultaneously. Our descriptive analyses suggest that rising education may have the most explanatory power, but a more rigorous design may yield different results. Second, in what ways the rise in women's voter participation and greater identification with the Democratic Party affected modern policy outcomes? In addition to clarifying the process of political change for women, providing answers to these questions may also provide broader insights into the process of acquiring political capital for newly enfranchised groups.

References

Ansolabehere, Stephen and Eitan Hersh. 2012. "Validation: What Big Data Reveal About Survey Misreporting and the Real Electorate." *Political Analysis* 20(4): 437-459.

Bailey, Martha J. 2006. "More Power to the Pill: The Impact of Contraception on Women's Life Cycle Labor Supply." *Quarterly Journal of Economics* 121(1): 289-320.

Berinsky, Adam J. 2006. "American Public Opinion in the 1930s and 1940s: The Analysis if Quota-Controlled Sample Survey Data." *Public Opinion Quarterly* 70(4): 499-529.

Bernstein, Robert, Anita Chadha, and Robert Montjoy, Overreporting Voting: Why It Happens and Why It Matters, *Public Opinion Quarterly*, Volume 65, Issue 1, March 2001, Pages 22–44

Besley, Timothy and Stephen Coate. 1997. "An Economic Model of Representative Democracy." *Quarterly Journal of Economics* 112(1): 85-114.

Bolzendahl, Catherine I. and Daniel J. Myers. 2004. "Feminist Attitudes and Support for Gender Equality: Opinion Change in Women and Men, 1974-1998." *Social Forces* 83(2): 759-789.

Box-Steffensmeier, Janet M., Suzanna De Boef, and Tse-min Lin. 2004. "The Dynamics of the Partisan Gender Gap." *American Political Science Review* 98(3): 515-528.

Carruthers, Celeste and Marianne Wanamaker. 2015. "Municipal Housekeeping: The Impact of Women's Suffrage on Public Education." *Journal of Human Resources* 50(4): 837-872.

Carsey, Thomas. M. and Geoffrey Layman. 2006). "Changing Sides or Changing Minds? Party Identification and Policy Preferences in the American Electorate." *American Journal of Political Science*, 50: 464-477.

Cascio, Elizabeth U. and Ebonya Washington. 2014. "Valuing the Vote: The Redistribution of Voting Rights and State Funds After the Voting Rights Act of 1965." *Quarterly Journal of Economics* 129(1): 376-433.

Cassese, Erin and Tiffany Barnes. 2018. "Reconciling Sexism and Women's Support for Republican Candidates: A Look at Gender, Class, and Whiteness in the 2012 and 2016 Presidential Races." *Political Behavior.* 41:677-700.

Clark, April K. 2017. "Updating the Gender Gap(s): A Multilevel Approach to What Underpins Changing Cultural Attitudes." *Politics & Gender* 13(1): 26-56.

Coppock, Alexander and Donald P. Green. 2016. "Is Voting Habit Forming? New Evidence from Experiments and Regression Discontinuities." *American Journal of Political Science* 60(4): 1044-1062.

Corder, J. Kevin and Christina Wolbrecht, 2016. *Counting Women's Ballots: Female Voters from Suffrage through the New Deal.* New York: Cambridge University Press.

Cox, Gary W. and Matthew D. McCubbins. 1986. "Electoral Politics as a Redistributive Game." *Journal of Politics* 48(2): 370-389.

Croson, R. and Gneezy, U. 2009. "Gender Differences in Preferences." *Journal of Economic Literature* 47(2): 448-474.

Dee, Thomas. 2004. "Are There Civic Returns to Education?" *Journal of Public Economics* 88: 1697-1720.

DiMaggio, Paul, John Evans, and Bethany Bryson. 1996. "How American's Social Attitudes Become More Polarized." *American Journal of Sociology* 102(3): 690-755.

Downs, Anthony. 1957. "An Economic Theory of Political Action in a Democracy." *Journal of Political Economy* 65(2): 135-150.

Duflo, Esther. 2012. "Women Empowerment and Economic Development." *Journal of Economic Literature*, 50 (4): 1051-79.

Edlund, Lena and Pande, Rohini, 2002. "Why Have Women Become Left-Wing? The Political Gender Gap and the Decline in Marriage." *Quarterly Journal of Economics*, 117(3): 917–961.

Farber, Henry S., Daniel Herbst, Ilyana Kuziemko, and Suresh Naidu. 2018. "Unions and Inequality Over the Twentieth Century: New Evidence from Survey Data." Manuscript.

Fernandez, Raquel, Sahar Parsa, and Martina Viarengo. 2019. "Coming out in America: AIDS, Politics, and Cultural Change." Manuscript.

Filer, John E., Lawrence W. Kenny, and Rebecca B. Morton. 1991. "Voting Laws, Educational Policies, and Minority Turnout," *Journal of Law and Economics* 34(2): 371-393.

Firebaugh, Glenn A. and Kevin Chen. 1995. "Vote Turnout of Nineteenth Amendment Women: the Enduring Effect of Disenfranchisement." *American Journal of Sociology* 100(4): 972-996.

Flood, Sarah, Miriam King, Renae Rodgers, Steven Ruggles and J. Robert Warren. *Integrated Public Use Microdata Series, Current Population Survey: Version 6.0* [dataset]. Minneapolis, MN: IPUMS, 2018. https://doi.org/10.18128/D030.V6.0

Fogli, Alessandra and Laura Veldcamp. 2011. "Nature or Nurture? Learning and the Geography of Female Labor Force Participation." *Econometrica* 79(4): 1103-1138.

Fujiwara, Thomas, Kyle Meng, and Tom Vogl. 2016. "Habit Formation in Voting: Evidence from Rainy Elections." *American Economic Journal: Applied Economics*, 8 (4): 160-88.

Gillion, Daniel Q., Jonathan M. Ladd, and Marc Meredith. 2018. "Party Polarization, Ideological Sorting and the Emergence of the U.S. Partisan Gender Gap." *British Journal of Political Science* 1-27.

Goldin, Claudia. 1990. *Understanding the Gender Gap: An Economic History of American Women*. New York: Oxford University Press.

Goldin, Claudia, Lawrence Katz, and Ilyana Kuziemko. 2006. "The Homecoming of American College Women: The Reversal of the College Gender Gap." *Journal of Economic Perspectives* 20(4): 133-156.

Gerber, Alan S., Donald P. Green, and Ron Shachar. 2003. "Voting May Be Habit-Forming: Evidence from a Randomized Field Experiment." *American Journal of Political Science* 47(3): 540-550.

Gerber, Alan, Gregory Huber, G., and Ebonya Washington. 2010. "Party Affiliation, Partisanship, and Political Beliefs: A Field Experiment." *American Political Science Review, 104*(4), 720-744.

Gerring, J. 1998. *Party Ideologies in America, 1828–1996*. Cambridge: Cambridge University Press. doi:10.1017/CBO9781139174992

Inglehart, Ronald and Pippa Norris. 2000. "The Developmental Theory of the Gender Gap: Women's and Men's Voting Behavior in Global Perspective." *International Political Science Review* 21(4): 441-463.

Kaufmann, Karen M. and John R. Petrocik, 1999. "The Changing Politics of American Men: Understanding the Sources of the Gender Gap." *American Journal of Political Science* 43(3): 884-887.

Keyssar, Alexander. 2009. *The Right to Vote: The Contested History of Democracy in the United States* [Revised Edition]. New York, NY: Basic Books.

Kleppner, P. 1982. Were Women to Blame? Female Suffrage and Voter Turnout. *The Journal of Interdisciplinary History, 12*(4), 621-643.

Kose, Esra, Elira Kuka, and Na'ama Shenhav. 2019. "Who Benefited from Women's Suffrage?" Manuscript, Dartmouth College.

Lott, John R. Jr. and Lawrence W. Kenny. 1999. "Did Women's Suffrage Change the Size and Scope of Government?" *Journal of Political Economy* 107(6): 1163-1198.

Kuziemko, Ilyana and Ebonya Washington. 2018. "Why Did the Democrats Lose the South? Bringing New Data to an Old Debate." *American Economic Review* 108(10): 2830-2867.

Lawless, Jennifer L and Richard L Fox. 2013 "Girls Just Wanna Not Run: The Gender Gap in Young Americans' Political Ambitions," *Women & Politics Institute*.

Lawless, J., & Pearson, K. 2008. The Primary Reason for Women's Underrepresentation? Reevaluating the Conventional Wisdom. *The Journal of Politics, 70*(1), 67-82.

Layman, Geoffrey and Thomas Carsey. 2002. "Party Polarization and "Conflict Extension" in the American Electorate." *American Journal of Political Science.* 46. 786. 10.2307/3088434.

Miller, Grant. "Women's Suffrage, Political Responsiveness, and Child Survival in American History." *Quarterly Journal of Economics* 123(3): 1287-1327.

Milligan, Kevin, Enrico Moretti, and Philip Oreopoulos. 2004. "Does Education Improve Citizenship? Evidence from the United States and the United Kingdom." *Journal of Public Economics* 88: 1667-95.

Moehling, Caroline M. and Melissa A. Thomasson. 2012. "The Political Economy of Saving Mothers and Babies: The Politics of State Participation in the Sheppard-Towner Program." *Journal of Economic History* 72(1): 75-103.

Morgan-Collins, Mona. 2019. "The Electoral Impact of Newly Enfranchised Groups: The Case of Women's Suffrage in the United States. *Journal of Politics*.

Osborne, Martin J. and Al Slivinski. 1996. "A Model of Political Competition with Citizen-Candidates." *Quarterly Journal of Economics* 111(1): 85-96.

Prior, Markus. 2010. "You've Either Got It or You Don't? The Stability of Political Interest Over the Life Cycle." *Journal of Politics* 72(3): 747-766.

Robinson, W.S. 1950. "Ecological Correlations and the Behavior of Individuals." *American Sociological Review* 15(3): 351-357.

Ruggles, Steven, Sarah Flood, Ronald Goeken, Josiah Grover, Erin Meyer, Jose Pacas and Matthew Sobek. *IPUMS USA: Version 9.0* [dataset]. Minneapolis, MN: IPUMS, 2019. https://doi.org/10.18128/D010.V9.0

Shapiro, Robert Y. and Harpreet Mahajan. 1986. "Gender Differences in Policy Preferences: A Summary of Trends from the 1960s to the 1980s." *Public Opinion Quarterly* 50(1): 42-61.

Sondheimer, Rachel Milstein and Donald P. Green. 2010. "Using Experiments to Estimate the Effects of Education on Voter Turnout." *American Journal of Political Science* 54(1): 174-189.

Teele, Dawn L, 2018. *Forging the Franchise*. Princeton, NJ: Princeton University Press.

Valelly, Richard M. 2004. *The Two Reconstructions: The Struggle for Black Enfranchisement*. Chicago, IL: University of Chicago Press.

Wasserman, Melanie. 2018. "Gender Differences in Politician Persistence." Manuscript. University of California, Los Angeles.

Wolbrecht, Christina and Kevin J. Corder, forthcoming. *A Century of Votes for Women: American Elections Since Suffrage.* New York: Cambridge University Press.

Figure 1
**Voter Turnout in U.S. Presidential Elections: Survey and Administrative Data, 1900-2016**
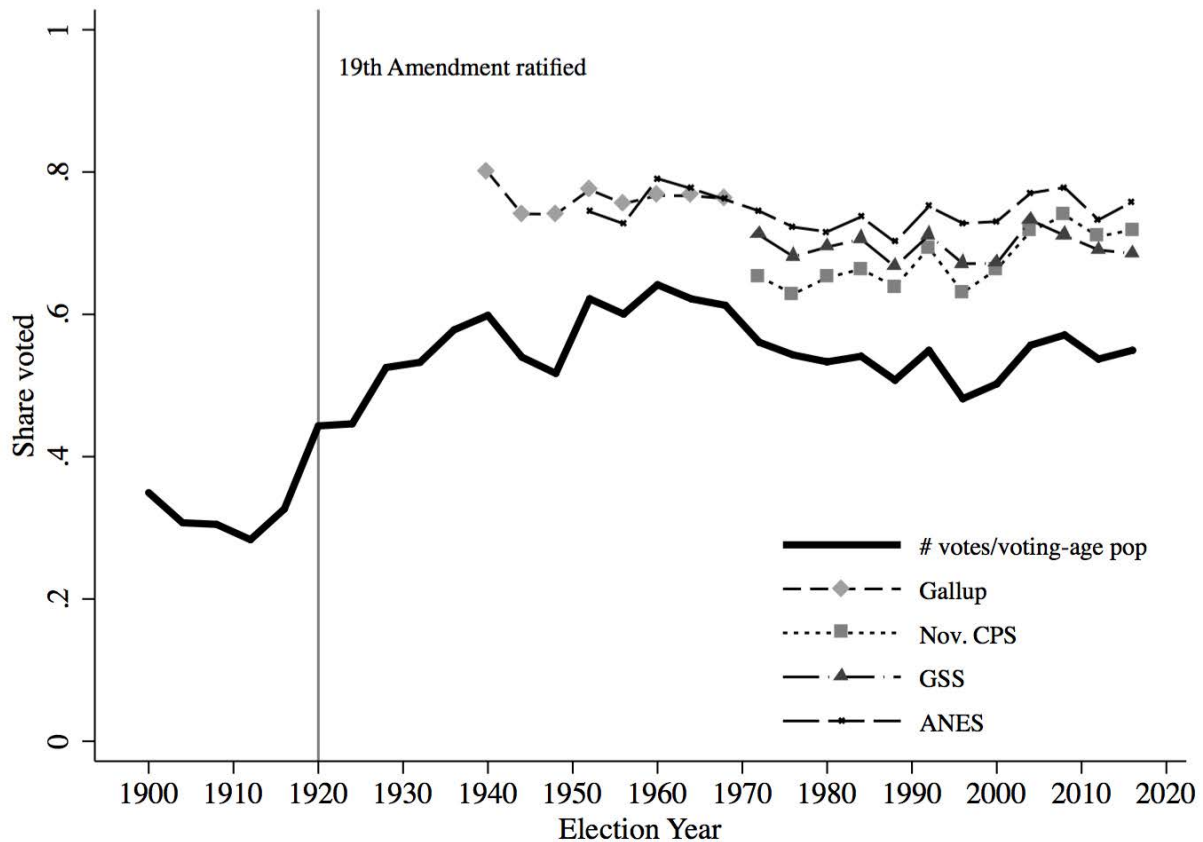
Data Sources: The numerator of the series represented by the solid black line is the U.S. presidential vote count, constructed by the authors from state-level vote tallies available at http://uselectionsatlas.org. The denominator of this series is U.S. voting-age population (ages 18 and up for 1972 forward+ and ages 21 and up in all earlier years) for the subsample of states in a region with election returns, estimated from Decennial Census (1900-2000) and American Community Survey (ACS) (2005-16) Public Use Microdata Samples (Ruggles et al., 2019). We compile Gallup microdata from polls conducted from 1940-70 by the Gallup Organization and November CPS Voter Supplement microdata from ICPSR Study #60 (for 1972) and IPUMS CPS (Flood et al., 2018) (for 1976-2016). GSS data are drawn from the GSS 1972-2018 Cross-Sectional Cumulative Data file (Release 1) (for 1972-2016) and ANES data from the ANES Time Series Cumulative Data File (1948-2016) (for 1952-2016). See Data Appendix.

Notes: We weight statistics from the Gallup microdata using weights that we construct from the Census, which adjust Gallup demographics to the year x region x education x race x sex x birth cohort level. (Birth cohorts are defined as described later in the paper.) We weight statistics from the November CPS, GSS, and ANES using survey-provided weights. All weights are re-normed so as to average to one within each survey-year.

Figure 2
Sex Gap in Voter Turnout, U.S. Overall and by Region: Pooled Survey Data, 1940-2016
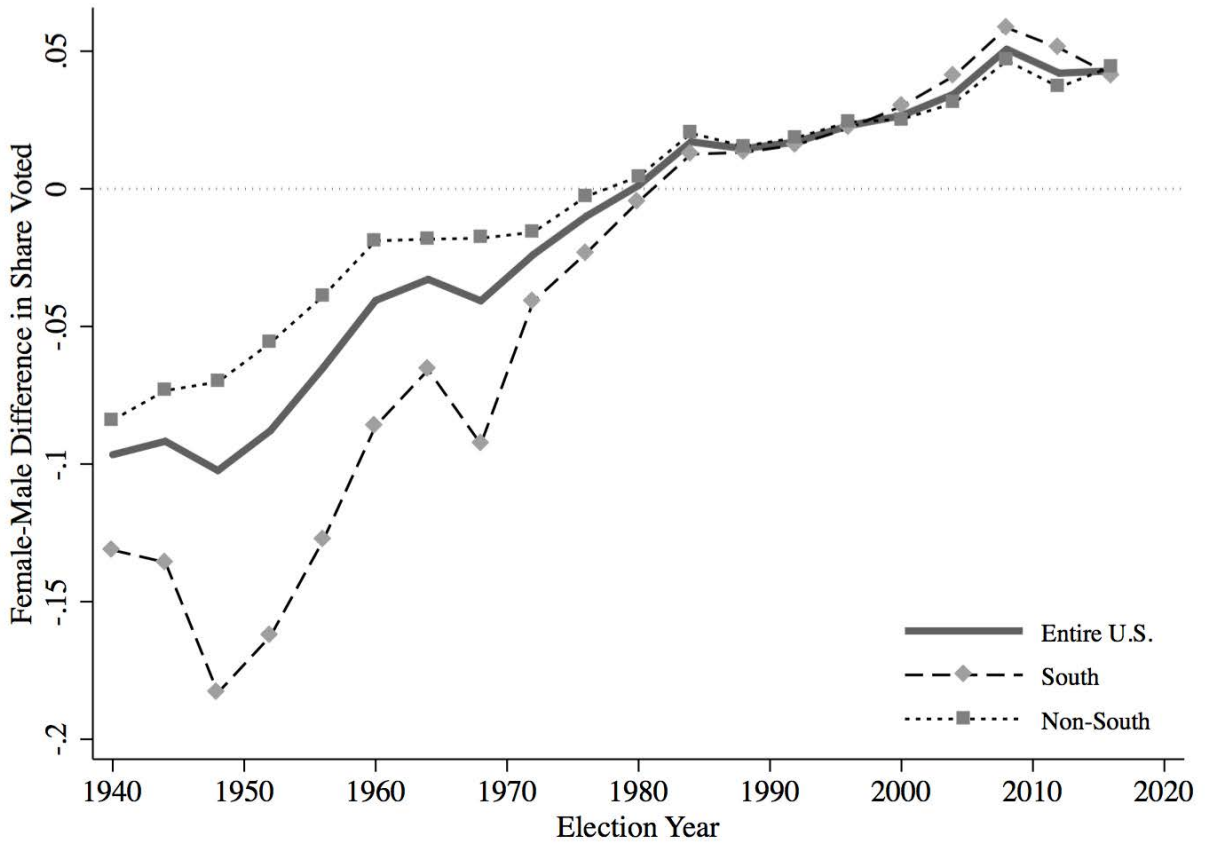
Notes: Survey data pool the Gallup, November CPS, GSS, and ANES series described in the notes to Figure 1. Statistics are weighted by survey-provided weights (for the CPS, GSS, and ANES) or author-constructed weights (for Gallup), with all weights re-normed to average to one within each survey-year. More details are in the Data Appendix. The figure plots the difference in estimated voter turnout rates between women and men by year, nationally and separately by region, with South representing the southern Census region.

Figure 3
The Sex Gap in Democratic Partisanship: Pooled Survey Data, 1940-2016
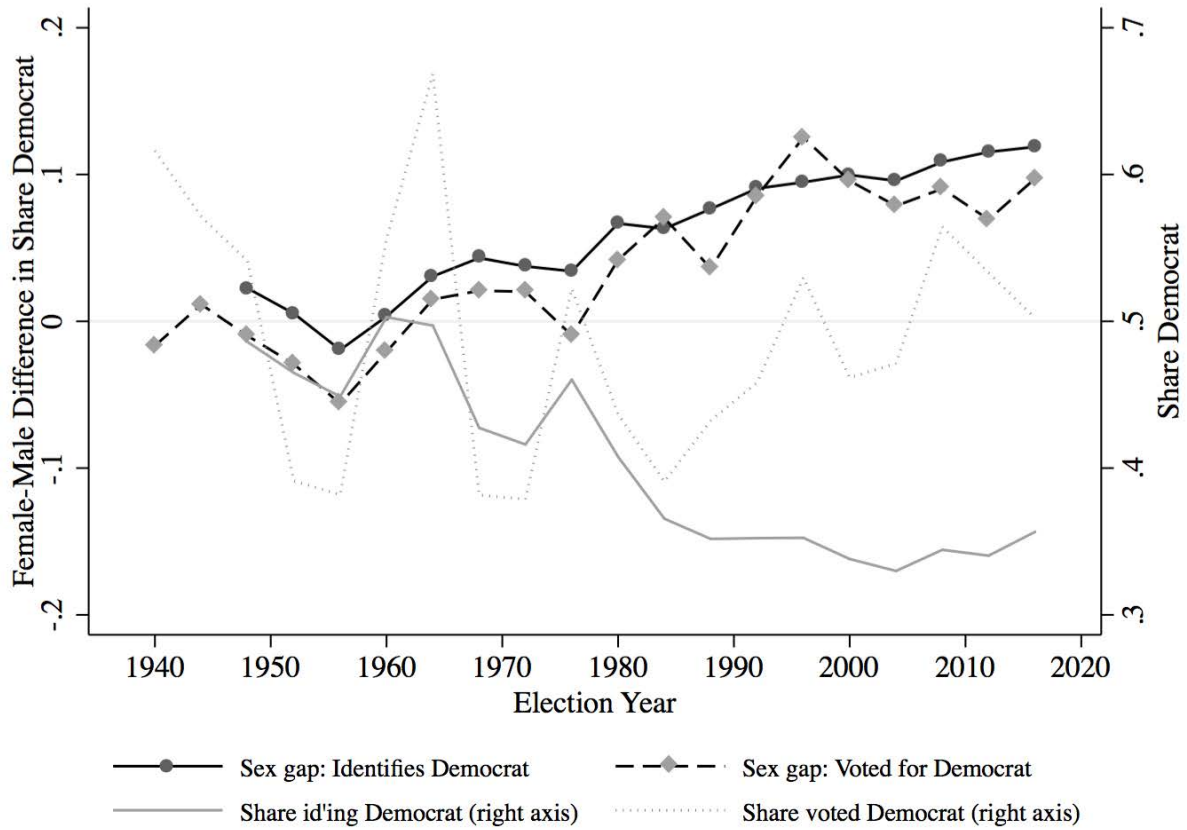

Data sources: Microdata on Democratic party identification are from the replication archive of Gillion, Ladd, and Meredith (2018) (for 1953-2012), Gallup polls spanning 1948-52 and 2013-17 that we collected from the Roper Center, the ANES Time Series Cumulative Data File (1948-2016), and the GSS Cross-Sectional Cumulative Data 1972-2018 (Release 1). Microdata on voting for the Democratic presidential candidate are from Gallup polls spanning 1940-70, the ANES Time Series Cumulative Data File (1948-2016), and the GSS Cross-Sectional Cumulative Data 1972-2018 (Release 1).

Notes: Statistics are weighted by survey-provided weights (for the GSS and ANES) or author-constructed weights (for Gallup), with all weights re-normed to average out to one within each survey-year.

Figure 4
**Sex Gap in Political Opinion: Preferences over Presidents, Pooled Survey Data, 1948-2010**
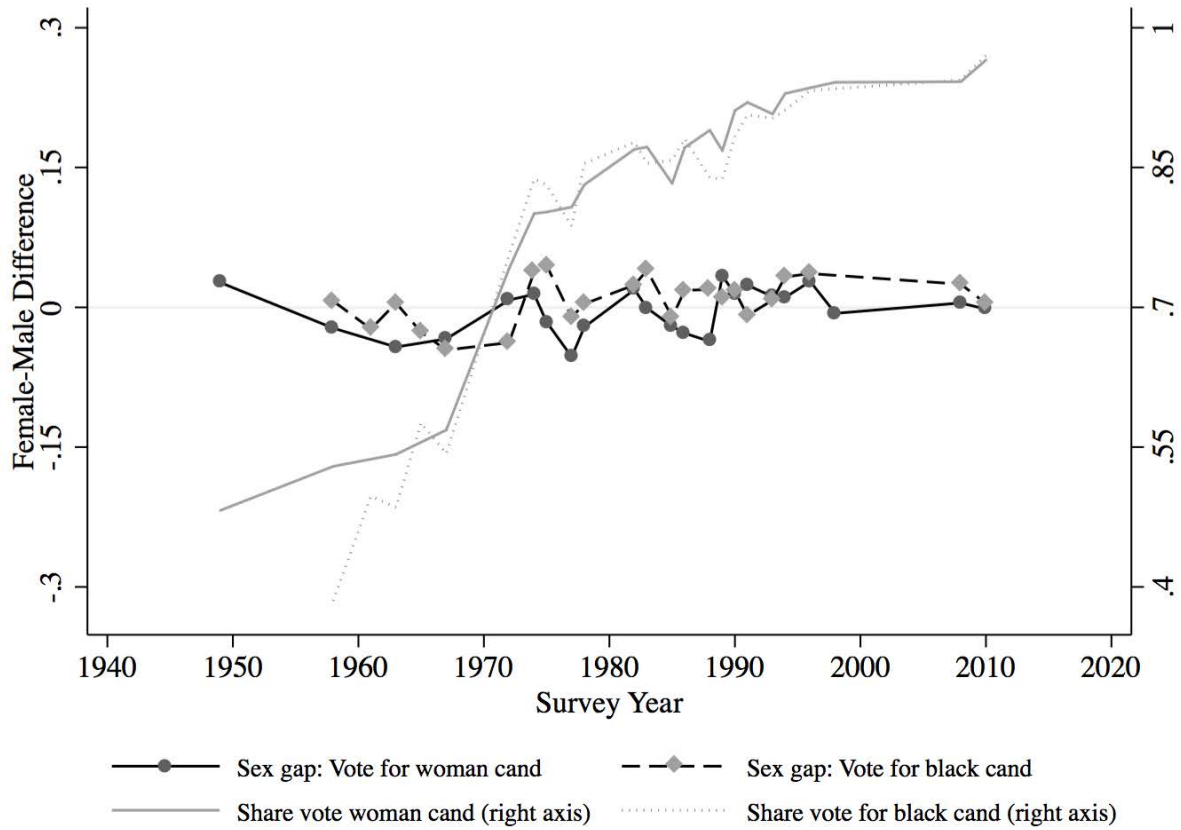
Data sources: Microdata are from Gallup polls (1948-69) and the GSS Cross-Sectional Cumulative Data 1972-2018 (Release 1).

Notes: Statistics are weighted by survey-provided weights (for the GSS) or author-constructed weights (for Gallup), with weights re-normed to average to one within each survey-year.

Figure 5
The Sex Gap in Voter Turnout, by Cohort: Pooled Survey Data, 1940-2016
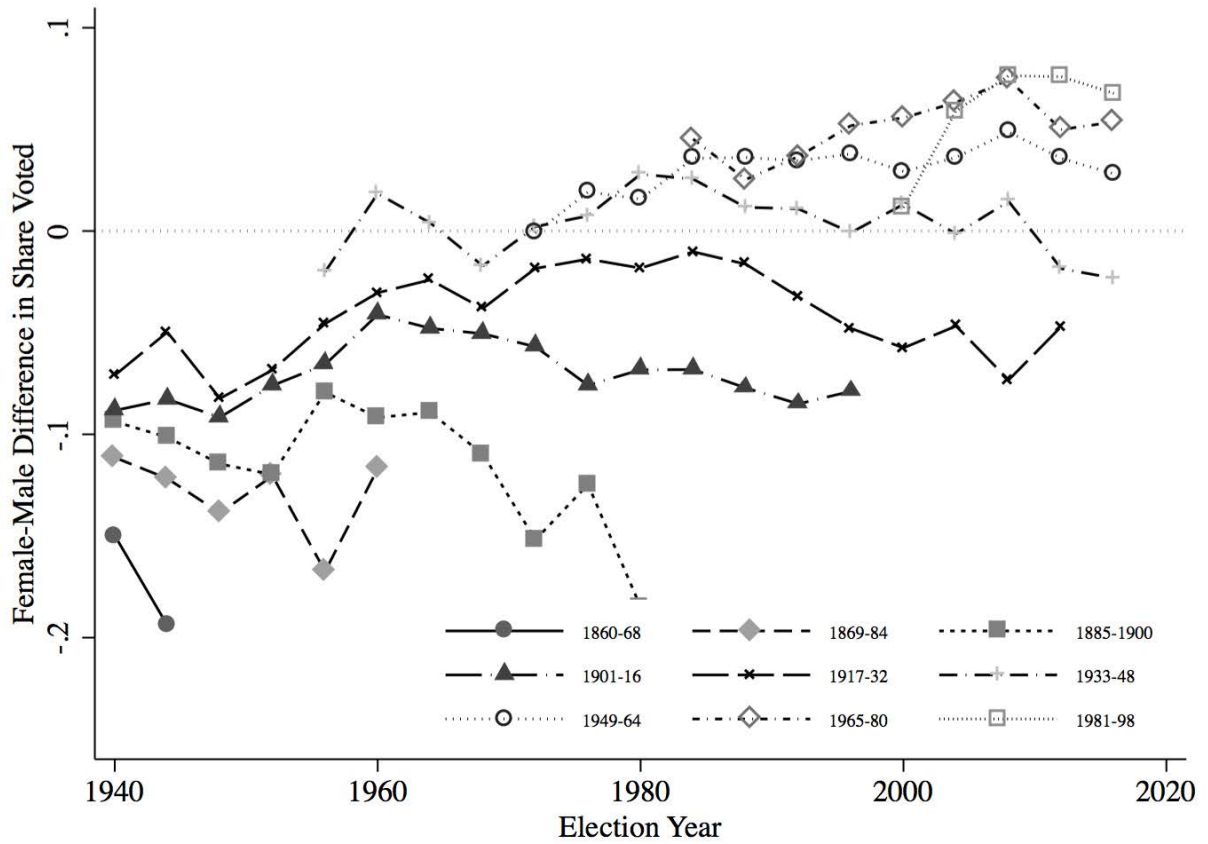
Notes: Survey data pool the Gallup, November CPS, GSS, and ANES series described in the notes to Figure 1. Statistics are weighted by survey-provided weights (for the CPS, GSS, and ANES) or author-constructed weights (for Gallup), with all weights re-normed to average to one within each survey-year. The figure plots the difference in estimated voter turnout rates between women and men by year and cohort. We omit cells based on small sample sizes (<150 observations per sex) to reduce noise.

Figure 6
Sex Gap in Democratic Party Identification, by Cohort: Pooled Survey Data, 1948-2016

Notes: Survey data pool the Gallup, GSS, and ANES series described in the notes to Figure 3. Statistics are weighted by survey-provided weights (for the GSS and ANES) or author-constructed weights (for Gallup), with all weights re-normed to a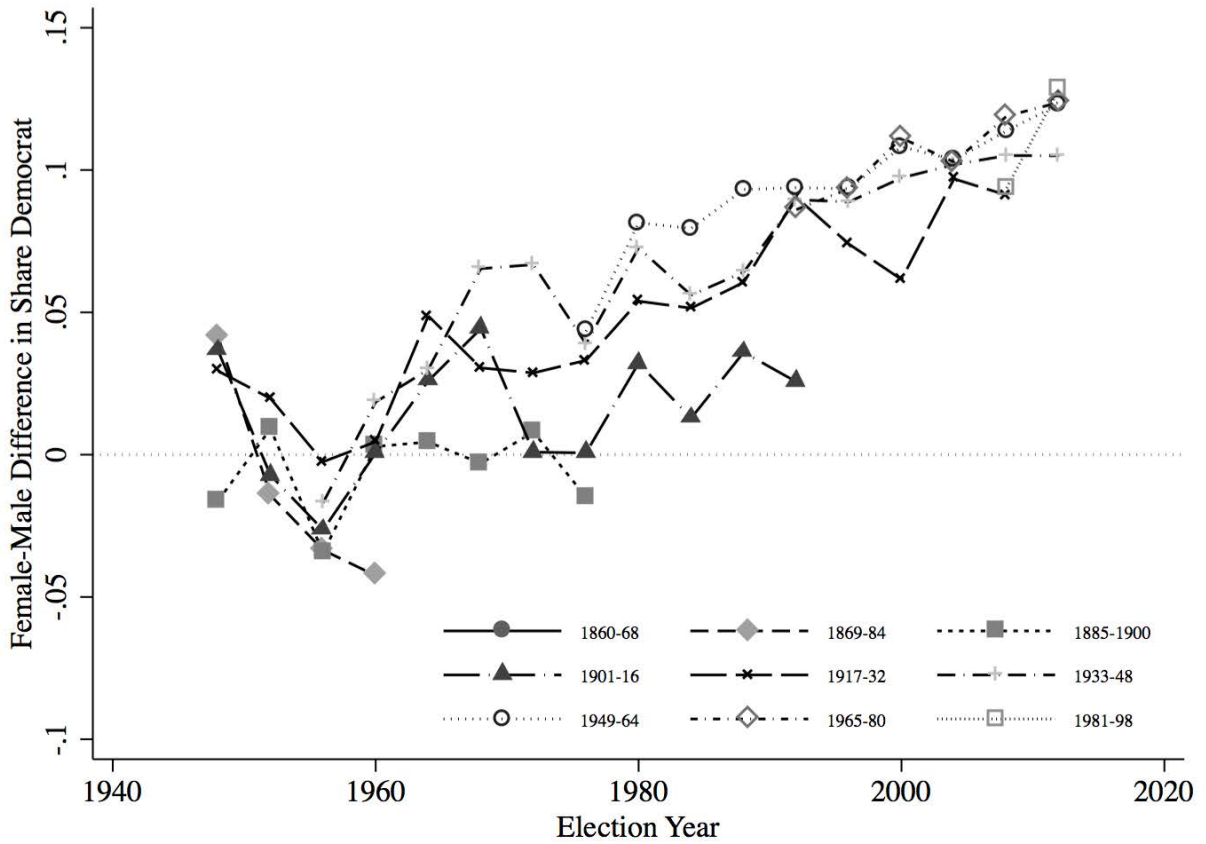verage to one within each survey-year. The figure plots the difference in estimated rates of identification with the Democratic party between women and men by year and cohort. We omit cells based on small sam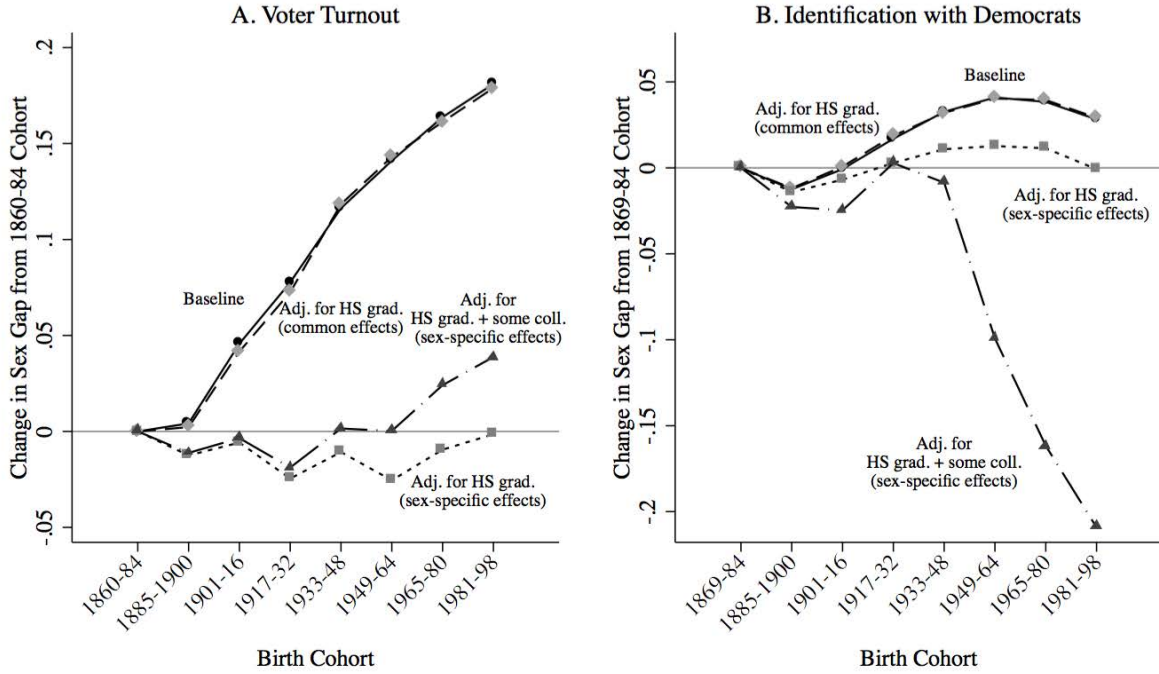ple sizes (<150 observations per sex) to reduce noise; for this reason, no observations from the earliest cohort are shown.

Figure 7
Educational Attainment and the Cohort Effects in Voting Sex Gaps

A. Voter Turnout

B. Identification with Democrats

Notes: Figures plot coefficients from regressions where the dependent variable is voter turnout (Panel A) or the rate of Democratic party identification (Panel B) at the election year x cohort x sex x state group level. All regressions are weighted by the number of observations used to construct the dependent variable. The solid line ("Baseline") plots the change in the sex gap in the outcome from the initial birth cohort (1860-84 in Panel A and 1969-84 in Panel B), or coefficients on the interaction between a female dummy and cohort indicators from a version of the regression described in the Data Appendix that also includes cohort fixed effects. Other lines show what would have happened to the sex gap in voter turnout across cohorts holding constant high school graduation and some college completion. Throughout, the sex gap is the female-male difference in the outcome.

Table 1

Trends in the Sex Gap in Voter Participation: Measures from the American National Election Studies

	1950s		2010s	
	Mean	*Sex Gap*	*Mean*	*Sex Gap*
A. Turnout				
Voted in Last Presidential Election	0.735	-0.112	0.746	0.017
B. Political Interest				
Cares a Lot About Which Party Wins Presidential Election	0.649	-0.047	0.813	0.000
Somewhat or Very Interested in Elections	0.702	-0.064	0.844	-0.019
Very Interested in Elections	0.334	-0.073	0.443	-0.066
C. Mobilization				
Tried to Influence Someone's Vote	0.278	-0.121	0.435	-0.041
Displayed Candidate Button/Sticker During Campaign	0.155	-0.060	0.139	-0.008
Donated Money to Party Candidate During Campaign	0.072	-0.031	0.120	-0.024
Attended Political Meetings/Rallies During Campaign	0.069	-0.020	0.063	-0.008
Worked for Party or Candidate During Campaign	0.032	-0.011	0.033	-0.010

Notes: Data are from the American National Election Studies. Data for the 1950s pertain to the 1952 and 1956 (with the exception of the variable "Displayed Candidate Button/Sticker During Campaign, which is only available for 1956). Data for the 2010s pertain to the 2012 and 2016 elections. Statistics are weighted by ANES sampling weights.

Table 2
Trends in the Sex Gap in Issue Preferences: Evidence from the General Social Survey

	1977-1986		2007-2016	
	Mean	*Sex Gap*	*Mean*	*Sex Gap*
Voted in Last Presidential Election	0.701	-0.009	0.698	0.024
Identifies as a Democrat	0.388	0.050	0.325	0.072
Voted for Democrat in Last Presidential Election	0.418	0.047	0.554	0.112
Sexuality Attitudes Index	*0.281*	*-0.066*	*0.512*	*0.022*
Homosexual Relations Not Wrong	0.137	-0.004	0.457	0.097
Okay to have Sex Before Marriage	0.392	-0.112	0.569	-0.048
Criminal Justice Index	*0.277*	*0.069*	*0.376*	*0.049*
Courts too Harsh	0.032	-0.007	0.162	-0.039
Should need Gun Permit	0.723	0.125	0.737	0.110
Oppose Death Penalty for Murder	0.248	0.100	0.351	0.088
Abortion Attitude Index	*0.646*	*-0.024*	*0.613*	*-0.033*
Abortion if Serious Defect	0.816	-0.013	0.739	-0.032
Abortion if Married + Don't Want More	0.428	-0.040	0.458	-0.048
Abortion if Mom Health at Risk	0.904	-0.022	0.879	-0.010
Abortion if Very Poor	0.475	-0.019	0.440	-0.023
Abortion if Pregnant from Rape	0.829	-0.022	0.772	-0.044
Abortion if Single + Don't Want to Marry	0.437	-0.027	0.417	-0.025
Women's Public Roles Index	*0.710*	*0.007*	*0.791*	*0.032*
Disagree Women not Suited to Politics	0.565	0.018	0.751	0.041
Vote Woman President	0.842	-0.020	0.951	0.003
Family Gender Roles Index	*0.481*	*0.097*	*0.697*	*0.099*
Disagree Woman Should Stay Home	0.453	0.043	0.676	0.050
Agree Mom Working Doesn't Hurt Kids	0.574	0.133	0.743	0.122
Disagree Pre-K Kids Suffer if Mom Works	0.419	0.121	0.676	0.128
Progressive Government Index	*0.307*	*0.026*	*0.323*	*0.029*
Govt. Should Help Poor	0.311	0.022	0.301	0.035
Govt. Should Help Sick	0.466	-0.006	0.478	0.043
Govt. Should Help Blacks	0.181	-0.001	0.189	0.009
Govt. Should Equalize Wealth	0.306	0.035	0.321	0.030
Race Equality Index	*0.533*	*0.022*	*0.569*	*0.026*
Race Gap not due to Ability	0.780	0.041	0.905	-0.007
Race Gap due to Access	0.524	0.003	0.463	0.023
Race Gap not due to Motivation	0.390	0.023	0.526	0.026
Race Gap due to Discrimination	0.437	0.027	0.372	0.056

Notes: Data are from the General Social Survey (GSS). Statistics are weighted by GSS sampling weights. The years in the column headers refer to survey years for preferences, and election years for voting outcomes. For voting outcomes shown in the first two rows of the table we also include the 2018 GSS, in which individuals report on voting behavior in the 2016 election.

Table 3
Trends in Party Polarization Within and Across Sex: Measures from the General Social Survey

| | *1977-1986* | | *2007-2016* | |
	Dems.	Party Gap	Dems.	Party Gap
	A. Women			
Voted in Last Presidential Election	0.723	-0.079	0.824	-0.022
Voted for Democrat in Last Presidential Election	0.739	0.660	0.944	0.839
Sexuality Attitudes Index	0.257	0.068	0.581	0.217
Criminal Justice Index	0.330	0.075	0.479	0.210
Abortion Attitude Index	0.628	-0.021	0.681	0.213
Women's Public Roles Index	0.721	0.073	0.847	0.104
Family Gender Roles Index	0.524	0.030	0.786	0.096
Progressive Government Index	0.403	0.214	0.464	0.319
Race Equality Index	0.551	0.051	0.644	0.144
	B. Men			
Voted in Last Presidential Election	0.734	-0.078	0.770	-0.060
Voted for Democrat in Last Presidential Election	0.736	0.681	0.912	0.837
Sexuality Attitudes Index	0.313	0.057	0.539	0.147
Criminal Justice Index	0.263	0.065	0.440	0.225
Abortion Attitude Index	0.641	-0.029	0.679	0.139
Women's Public Roles Index	0.687	0.018	0.813	0.097
Family Gender Roles Index	0.399	-0.006	0.680	0.081
Progressive Government Index	0.381	0.189	0.450	0.321
Race Equality Index	0.505	0.008	0.617	0.145

Notes: Data are from the General Social Survey (GSS). Statistics are weighted by GSS sampling weights. The years in the column headers refer to survey years for preferences, and election years for voting outcomes. "Dems." refers to individuals that report identifying as a Democrat, strongly or not strongly. "Party Gap" is the difference between views of those that identify as Democrats and those that identify as Republicans (strongly or not strongly). Appendix Table 2 contains a summary that includes each of the components of these indices

Supplemental Online Appendix for

**A Century of the American Woman Voter:
Sex Gaps in Political Participation, Preferences, and Partisanship
Since Women's Enfranchisement**

By Elizabeth U. Cascio and Na'ama Shenhav

January 2020

Administrative Data

Historical Voting Records

For the numerator of the administrative voter turnout rate, we calculate national (Figure 1) and regional (Appendix Figure 2) vote tallies using data from David Leip's Atlas of U.S. Presidential Elections (http://uselectionatlas.org). The original unit of analysis is the state, and we aggregate to the national and (Census) region levels. We purchased an individual license for the 1900-2012 data (US President - State-Level All-Time Vote Data Spreadsheet, version 1.3). We hand entered key variables for 2016 election from an online table at this website.[15]

Voting-Age Population

For the denominator of the administrative voter turnout rate, we estimate national (Figure 1) and regional (Appendix Figure 2) voting-age population by multiplying published total Census population counts by estimated population shares ages 21+ (1900-68) or ages 18+ (1972-2016). The original unit of analysis for the published Census counts is the state, and we limit attention to states with presidential election returns before aggregating up to the state or regional level.[16] We estimate voting-age population shares using Census and American Community Survey (ACS) microdata (Ruggles et al., 2019), linearly interpolating in intercensal years. Voting-age is defined as ages 21 and over through the 1968 presidential election and ages 18 and over for all elections from 1972 forward.

Survey Data

Gallup Polling Data

Our main source for sex-specific voter turnout and preferences over hypothetical presidential candidates prior to 1972, and for information on party identification throughout the period of interest, is polling data from the Roper Center. Until the 1990s, almost all of the relevant polls available through the Roper Center were conducted by the Gallup Organization. We therefore focus on Gallup polls in our own data collection. However, the Roper data file provided in the replication archive of Gillion, Ladd, and Meredith (2018), which provides the core data for our analysis of trends in party identification, includes polls conducted by other organizations.[17]

---

[15] <https://uselectionatlas.org/RESULTS/data.php? year=2016&datatype=national&def=1&f= 1&off =0&elect=0> Our replication files provide the national and regional aggregate turnout figures and the code that we applied to the state panel data to generate them. To run the code, you will need to purchase the 1900-2012 data from http://uselectionatlas.org.

[16] We thus omit Alaska, Hawaii, and the District of Columbia prior to 1960. Population figures for 1900 through 1990 are available at http://data.nber.org/census/pop/. Population estimates as of July 1 for 2000-2009 and 2010-2018 are available at https://www.census.gov/data/tables/time-series/demo/popest/intercensal-2000-2010-state.html and https://www.census.gov/data/tables/time-series/demo/popest/2010s-national-total.html, respectively. We linearly interpolate population in intercensal years.

[17] However, unlike Gillion et al., who rely on Gallup-provided sampling weights, we use data from the Census and ACS to weight Gallup demographics to the region x sex x education x race x cohort level. We describe this weighting process below.

Gillion, Ladd, and Meredith's (2018) replication files include polls from 1953 to 2012, including some not fielded by the Gallup Organization, which become more prevalent in the 1990s. To maintain sufficiently large sample sizes, we also include these other polls in our estimation sample. We extend this series backwards to 1948 using earlier Gallup polls not included in Gillion, Ladd, and Meredith (2018). Gallup sporadically asked about party affiliation after the 1940 and 1944 elections, but the data are too sparse to be included in the present analysis. We also extended forward to include polls from 2013 and the first quarter of 2014 (to correspond to the 2012 election). We used a larger scale Gallup-Knight Foundation survey on Trust, Media, and Democracy, fielded in 2017, to gain insight into party affiliation following the 2016 election, though this particular survey lacks sufficient detail on age to be included in our later, more detailed look at time and cohort effects on trends in the sex gap in Democratic party identification.

For voter turnout and partisanship, we assign polls conducted within two years after a presidential election to that particular election year. The number of available polls varies from election to election. Following Kuziemko and Washington (2018), in our own read-in of the data, we focus on polls for which data were not transferred by the Roper Center from binary to ASCII format, as such data can contain stray characters. This data format arises as late as 1964 but is relatively common for earlier polls that could in principle be assigned to presidential elections through 1960. To ensure sufficiently large sample sizes for the earliest presidential elections, we use the Berinsky-Schickler Stata code to read in binary-to-ASCII files (Berinsky and Schickler, 2011). In addition, we use all polls included in the Gillion, Ladd, and Meredith (2018) replication file (which includes a variable on party identification but not voter turnout), regardless of the original format. All elections have information from at least 8 polls, with the lowest number of observations being for voter turnout in the 1952 election.[18]

A particular challenge of using the Gallup data for our purposes is that the earliest polls were collected using a "quota-controlled" sampling strategy. This approach targeted certain numbers of individuals within strata defined by observable characteristics, such as region of residence, sex, and race, with the goal of producing samples representative of the likely-voter population, not the population overall (see Berinsky (2006) and Berinsky et al. (2011)). Reflecting Gallup's views on the demographic make-up of likely voters, the earliest polls under-represented the South, the non-white population, the less-educated population, and women, as shown in Appendix Figure 1. Moreover, within strata, canvassers had significant discretion in who they interviewed. These polls are thus not random samples. Starting in 1950, Gallup moved to a national probability-based sampling scheme (see Appendix C of Farber, et al. (2018) for a full description), but weights are not consistently provided in the microdata.[19]

To produce statistics that are more representative of the population, we pursue a cell-based reweighting strategy like that described in Berinsky (2006), Berinsky, et al. (2011), Kuziemko and Washington (2018), and Farber, et al. (2018).[20] In particular, we adjust Gallup

---

[18] In later years, we do not use all available polls for expediency. Our microdata files contain a variable giving the relevant survey number.

[19] We also drop duplicate observations, which were used as an implicit form of weighting in some Gallup polls.

[20] The weights described in Berinksy (2006) and Berinsky, et al. (2011) for Gallup polls spanning 1936 to 1945 are available at the Roper Center through Berinsky and Schickler (2011).

demographics using population weights matched to cells defined by year, respondent sex (female, male), race (nonwhite, white), region of residence (South, non-South, where South is the southern census region), high school completion (yes or no), and birth cohort (matching the nine roughly 16-year birth cohorts described in the text).

We do this across a number of steps:

1. We estimate population counts and high school graduation rates by year, sex (female, male), race (nonwhite, white), region (South, non-South, where South is the southern census region), and single year of age using microdata from the Census (1940 through 2000) and American Community Survey (2005 through 2016) (Ruggles et al., 2019).
2. We linearly interpolate total population and high school graduation rates in intercensal years in the sex, race, region, age cells described in step 1.
3. We multiply (interpolated) high school graduation rates by (interpolated) total population in the cell to obtain predicted numbers of high school graduates and non-graduates in each year, sex, race, region, age cell.
4. We reshape the data so that the unit of observation is the year, sex, race, region, age, and high school completion status (yes or no).
5. We restrict attention to individuals in the target age range (ages 18-80 for 1972+ and ages 21-80 in earlier years.)
6. We sum up population in the desired cells, defined by year, sex, race, region of residence, high school completion, and birth cohort (matching the nine roughly 16-year birth cohorts described in the text). We approximate year of birth as year minus age minus 1, given the April 1 timing of the Census.[21]
7. We calculate the share of the voting-age population (through age 80) in each cell c, separately by year t, ϖ_{ct}^{P}.
8. We calculate the share of the voting-age sample (through age 80) in each cell c, separately by year t and survey s, ϖ_{cts}^{M}, treating each individual Gallup survey as distinct.
9. We calculate the weight by normalizing the ratio of these shares, $\widetilde{w}_{icts} = \varpi_{ct}^{P}/\varpi_{cts}^{M}$, with i representing the individual respondent, so as to average to one within each survey-year. That is, the weight for respondent i in cell c in survey s in year t is given by $w_{icts} = \left(\widetilde{w}_{icts}/\sum_{i=1}^{N_{ts}} \widetilde{w}_{icts}\right) \times N_{ts}$, where N_{ts} is the number of observations in survey s in year t.

As shown in Appendix Figure 1 Panel B, which corresponds to the partisanship series where we use our Gallup weighting strategy throughout, the weights do a very good job of reproducing the trends in population shares residing in the South, nonwhite, female, with a high school degree, and with some college (despite not including this variable in the weights) that are observed in the Census/ACS. They also do a fairly good job capturing fluctuations in the average age of the population.

November Current Population Survey

The Voter Supplement of the November Current Population Survey (CPS) asks about whether an individual voted in the prior November election. While the supplement was fielded as early as

---

[21] Interview timing in the ACS is not provided in the public-use data.

1964, we were not able to locate microdata for 1964 and 1968, and personal correspondence with Census statisticians suggests that they may have been lost. The 1972 microdata include a question on voting in the 1968 presidential election, but we exclude information about this election so as to be consistent in how questions about voter behavior are timed relative to elections (within two years).

We thus use the November CPS Voter Supplements to estimate voter turnout in the elections from 1972 forward. The 1972 data are available through ICPSR Study No. 60 (U.S. Bureau of the Census, 1992). Data for the years 1976 through 2016 are available through IPUMS CPS (Flood et al., 2018). State of residence is grouped into 27 categories in 1976 (only), precluding a regression analysis at the state level. The universe of the data always includes those ages 18 and over but otherwise changes over time. Through the 1988 election, the supplement was administered only to those eligible to vote; likewise, for 2012 and 2016, the supplement was restricted to citizens. For the 1992 through 2008 elections, there were no additional restrictions. The rate of non-response to the voting question rises over time, but to a similar extent across sex.

We use the supplement weights for the November CPS, renormalizing them to average to one within year as with the Gallup demographic weights. An interesting feature of these weights is that they do not replicate the trends in population share nonwhite that we observe in the Census/ACS, as suggested by Appendix Figure 1 Panel A, which corresponds to the voter turnout series where the November CPS dominates in years 1972 and later.

American National Election Studies

The American National Election Studies (ANES) provide rich information on voting, other measures of political participation, and public opinion for elections dating back to 1952.[22] We use data from the ANES Time Series Cumulative Data File (1948-2016), available at https://electionstudies.org/data-center/, as an additional source of information on both voter turnout and party identification. The survey also allows us to calculate statistics related to other measures of political participation (Table 1) and issue preferences (Appendix Table 2).

We use the weights provided in the ANES Time Series Cumulative Data File, renormalizing them to average to one within a year as with the Gallup demographic weights. Data for 1952, 1956, 1964, 1968, 1972, 1980, 1984, and 1988 are self-weighting.

General Social Survey

The General Social Survey (GSS) provide rich information on voting, other measures of political participation, and public opinion for elections dating back to 1968. We use data from the GSS 1972-2018 Cross-Sectional Cumulative Data file (Release 1), available at http://gss.norc.org/get-the-data/stata, as an additional source of information on both voter turnout and party identification for 1972 forward. The survey also allows us to calculate statistics related to other measures of issue preferences (Tables 2 and 3) and to continue the Gallup series on preferences over hypothetical presidential candidates (Figure 4).

---

[22] There are a limited number of variables available for the 1948 presidential election. We focus on the 1952 through 2016 elections, where a more complete set of variables is available.

The GSS asks questions about voting in given presidential election typically across the three to four years that followed. To be consistent about how questions about voting are timed relative to the election, we restrict attention to the responses given within two years of an election (e.g., we use 1973 and 1974 responses about the 1972 election, but not 1975 and 1976 responses). Because the GSS began in 1972, we exclude responses about the 1968 election for the same reason.

We use the weights provided in the GSS, renormalizing them to average to one within year as with the Gallup demographic weights.

Appendix Table 1 summarizes the availability of each of our main voting and preference measures in the GSS during our two sets of focal years in Tables 2 and 3 (1977-1986 and 2007-2016). Although many of the questions were not included in each survey (particularly between 1978 and 1984), all of the questions were fielded at least three times during each of the periods we analyze. This ensures that we have reasonable balance in the composition of questions represented in the summary indices in each period.

Regressions

In the section, "Drivers of the Sex Gaps and the Growing Political Influence of Women," we explore the extent to which generational replacement, or cohort effects, can explain time trends in the sex gap in voter turnout and identification with the Democratic party. We also consider the extent to which inter-cohort trends in educational attainment by age 25 (estimated from Census/ACS data) can explain the cohort effects.

Specifically, we initially estimate a model of the form:

$$V_{scrtd} = \alpha + \gamma F_s + \sum_{\tau \neq \tau_o} \theta_\tau D_d^\tau \times F_s + \delta_d + \sum_{\rho \neq \rho_o} \phi_\tau R_r^\rho \times F_s + \varphi_r + \varepsilon_{scrtd},$$

where V_{scrd} represents the voter turnout or Democratic party identification rate for individuals of sex s in cohort c residing in CPS state group r in election year t in decade d; F_s is a female dummy variable and D_d^τ is a decade indicator; δ_d represents a vector of decade fixed effects, or coefficients on the vector of decade indicators; and R_r^ρ represents state group indicators and φ_r state group fixed effects.[23] The interactions between the initial decade indicator for a given variable, τ_0, and F_s is omitted, so that the θ_τ represent changes in the sex gap between τ and τ_0. The solid lines in each panel of Appendix Figure 7 show baseline trends in the sex gap, i.e., estimates of the θ_τ.

We first examined how estimates of the θ_τ changed with inclusion of cohort indicators and their interaction with F_s. Estimates of the θ_τ with cohort effects included are represented by the dashed lines in Appendix Figure 7. As shown in Panel A, the unadjusted, or baseline, sex gap in voter turnout is increasing across decades, but the adjusted gap in much flatter. This implies that the relative rise in women's turnout over time largely reflect generational replacement of older

---

[23] We work with "state groups," rather than individual states since the 1976 November Current Population Survey does not report individual state, but rather groups of small states that are close geographically.

cohorts with younger cohorts. In contrast, the results in Panel B show that the unadjusted and the adjusted sex gap in Democratic identification are quite similar, with both increasing across decades. This implies that generational replacement cannot explain women's relative rise in Democratic identification; rather, these effects were present across all cohorts.

The solid lines in Figure 7 of the paper show the baseline cohort effects (coefficients on the interactions between F_s and the cohort indicators) that correspond to the adjusted year effects represented by the dashed lines in Appendix Figure 7. Consistent with the Appendix Figure 7 findings, the inter-cohort changes in the sex gap are much more striking for voter turnout than for Democratic party identification. The remaining lines show what happens to the estimated cohort effects as cohort educational attainment, by level (high school and some college, both by age 25) and without and with sex-specific coefficients, are then added to the model. Sex-specific effects of high school completion explain the substantial cohort effects for voter turnout, and controls for college attendance generate cohort effects. The corresponding regression coefficients on the education variables are given in Appendix Table 3.

References

Berinsky, Adam J. 2006. "American Public Opinion in the 1930s and 1940s: The Analysis if Quota-Controlled Sample Survey Data." *Public Opinion Quarterly* 70(4): 499-529.

Berinsky, Adam J. and Eric Schickler. 2011. *The American Mass Public in the 1930s and 1940s* [Computer file]. Individual surveys conducted by the Gallup Organization [producers], 1936-1945: Roper Center for Public Opinion Research, University of Connecticut [distributor], 2011.

Berinsky, Adam J., Eleanor Neff Powell, Eric Schickler, and Ian Brett Yohai. 2011. "Revisiting Public Opinion in the 1930s and 1940s." *PS: Political Science and Politics* 44(3): 515-520.

Farber, Henry S., Daniel Herbst, Ilyana Kuziemko, and Suresh Naidu. 2018. "Unions and Inequality Over the Twentieth Century: New Evidence from Survey Data." Manuscript.

Flood, Sarah, Miriam King, Renae Rodgers, Steven Ruggles and J. Robert Warren. *Integrated Public Use Microdata Series, Current Population Survey: Version 6.0* [dataset]. Minneapolis, MN: IPUMS, 2018. https://doi.org/10.18128/D030.V6.0

Gillion, Daniel Q., Jonathan M. Ladd, and Marc Meredith. 2018. "Party Polarization, Ideological Sorting and the Emergence of the U.S. Partisan Gender Gap." *British Journal of Political Science* 1-27.

Kuziemko, Ilyana and Ebonya Washington. 2018. "Why Did the Democrats Lose the South? Bringing New Data to an Old Debate." *American Economic Review* 108(10): 2830-2867.

Ruggles, Steven, Sarah Flood, Ronald Goeken, Josiah Grover, Erin Meyer, Jose Pacas and Matthew Sobek. *IPUMS USA: Version 9.0* [dataset]. Minneapolis, MN: IPUMS, 2019. https://doi.org/10.18128/D010.V9.0

United States, Bureau of the Census. 1992. *Current Population Survey: Voter Supplement File, 1972.* Ann Arbor, MI: [distributor], 1992-02-16. https://doi.org/10.3886/ICPSR00060.v1

Appendix Table 1

Availability of Voting and Preferences Measures in the General Social Survey, 1977-1986 and 2007-2016

	77	78	80	82	83	84	85	86	08	10	12	14	16
Voted in Last Presidential Election	X			X			X			X		X	
Voted for Democrat in Last Presidential Election	X			X			X			X		X	
Sexuality Attitudes Index	X	X	X	X	X	X	X	X	X	X	X	X	X
Homosexual Relations Not Wrong	X		X	X		X	X		X	X	X	X	X
Okay to have Sex Before Marriage	X	X		X	X		X	X	X	X	X	X	X
Criminal Justice Index	X	X	X	X	X	X	X	X	X	X	X	X	X
Courts too Harsh	X	X	X	X	X	X	X	X	X	X	X	X	X
Should need Gun Permit	X		X	X		X	X		X	X	X	X	X
Oppose Death Penalty for Murder	X	X	X	X	X	X	X	X	X	X	X	X	X
Abortion Attitude Index	X	X	X	X	X	X	X		X	X	X	X	X
Abortion if Serious Defect	X	X	X	X	X	X	X		X	X	X	X	X
Abortion if Married + Don't Want More	X	X	X	X	X	X	X		X	X	X	X	X
Abortion if Mom Health at Risk	X	X	X	X	X	X	X		X	X	X	X	X
Abortion if Very Poor	X	X	X	X	X	X	X		X	X	X	X	X
Abortion if Pregnant from Rape	X	X	X	X	X	X	X		X	X	X	X	X
Abortion if Single + Don't Want to Marry	X	X	X	X	X	X	X		X	X	X	X	X
Women's Public Roles Index	X	X		X	X		X	X	X	X	X	X	X
Disagree Women not Suited to Politics	X	X		X	X		X	X	X	X	X	X	X
Vote Woman President	X	X		X	X		X	X	X	X			
Family Gender Roles Index	X						X	X	X	X	X	X	X
Disagree Woman Should Stay Home	X						X	X	X	X	X	X	X

	1	2	3	4	5	6	7	8	9	10	11	12
Agree Mom Working Doesn't Hurt Kids	X					X	X	X	X	X	X	X
Disagree Pre-K Kids Suffer if Mom Works	X					X	X	X	X	X	X	X
Progressive Government Index		X	X	X	X	X	X	X	X	X	X	
Govt. Should Help Poor				X	X	X	X	X	X	X	X	
Govt. Should Help Sick				X	X	X	X	X	X	X	X	
Govt. Should Help Blacks				X	X	X	X	X	X	X	X	
Govt. Should Equalize Wealth		X	X	X	X	X	X	X	X	X	X	
Race Equality Index	X					X	X	X	X	X	X	X
Race Gap not due to Ability	X					X	X	X	X	X	X	X
Race Gap due to Access	X					X	X	X	X	X	X	X
Race Gap not due to Motivation	X					X	X	X	X	X	X	X
Race Gap due to Discrimination	X					X	X	X	X	X	X	X

Appendix Table 2

Trends in the Sex Gap in Issue Preferences: Measures from the American National Election Studies

	Earliest Decade		Latest Decade	
	Mean	*Sex Gap*	*Mean*	*Sex Gap*
A. Party Preferences and Ideology (Share)				
Identifies as a Democrat	0.471	-0.003	0.349	0.074
Voted for the Democrat in Last Presidential Election	0.410	-0.040	0.509	0.064
Slightly to Extremely Liberal†	0.249	-0.041	0.281	0.024
Slightly to Extremely Conservative†	0.375	-0.046	0.395	-0.067
B. Group Thermometers (scale of 0-97)‡				
Blacks	63.8	3.5	66.1	4.3
Poor People†	72.1	3.4	69.5	2.9
Big Business	59.8	-1.3	49.1	-0.2
Labor Unions	56.9	-2.6	52.1	4.2
Liberals	52.2	1.4	48.5	5.0
Conservatives	56.8	-1.2	54.9	0.4
C. Issues (Share in At Top 3 Points on 7-Point Scale)				
Government Should Help Minority Groups/Blacks†,**	0.345	0.016	0.225	0.015
Government Should Provide Many More Services ○	0.368	0.070	0.333	0.049
Women and Men Should Have An Equal Role†,*	0.519	-0.054	0.824	0.032

Notes: Data are from the American National Election Studies. Statistics are weighted by ANES sampling weights. otherwise noted, earliest decade is the 1950s (1952 and 1956) and latest decade is the 2010s (2012 and 2016). ‡ Earliest decade is 1960s (1964, 1968). † Earliest decade is 1970s (1972 and 1976). ○ Earliest decade is 1980s (1980, 1984). * Latest decade is 2000s (2004, 2008). ** Latest decade includes 2016 only.

Appendix Table 3
**Association between Cohort Educational Attainment and Voter Turnout and Party Identification**

	Voter Turnout			*Democratic Party Identification*		
	(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
High School Graduation	0.186	0.051	0.034	-0.068	-0.090	-0.232
	(0.031)	(0.042)	(0.044)	(0.029)	(0.042)	(0.050)
High School x Female		0.248	0.271		0.041	0.077
		(0.061)	(0.063)		(0.057)	(0.065)
Some College Attendance			0.059			0.521
			(0.071)			(0.082)
Some College x Female			-0.103			0.205
			(0.103)			(0.111)
Number of observations (cells)	5072	5072	5072	4150	4150	4150

Notes: The unit of analysis is a sex x Census region x birth cohort x election decade cell. The underlying regression includes sex fixed effects, sex x decade fixed effects, sex x cohort fixed effects, sex x region fixed effects. Regressions are weighted by cell size, and standard errors (in parentheses) are clustered on state group. All observed correlates are shares ranging from 0 to 1.

Comparison of Characteristics in Unweighted and Weighted Data
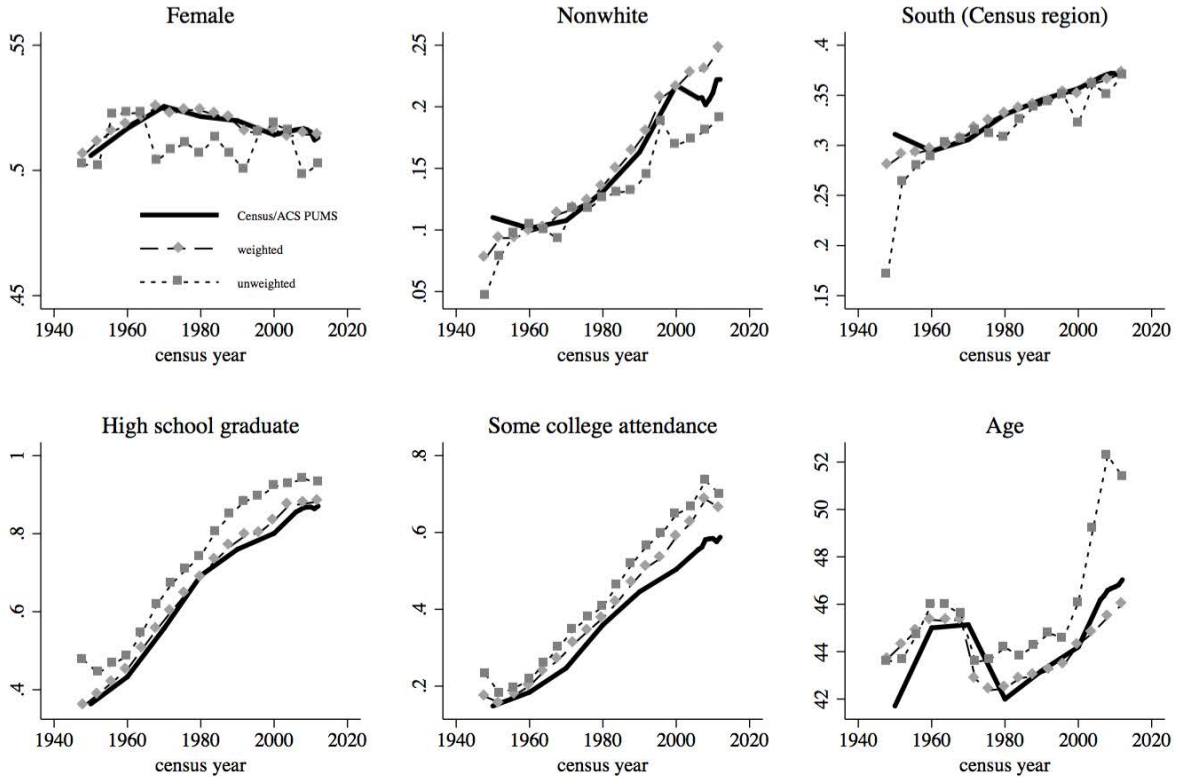
A. Voter Turnout Series
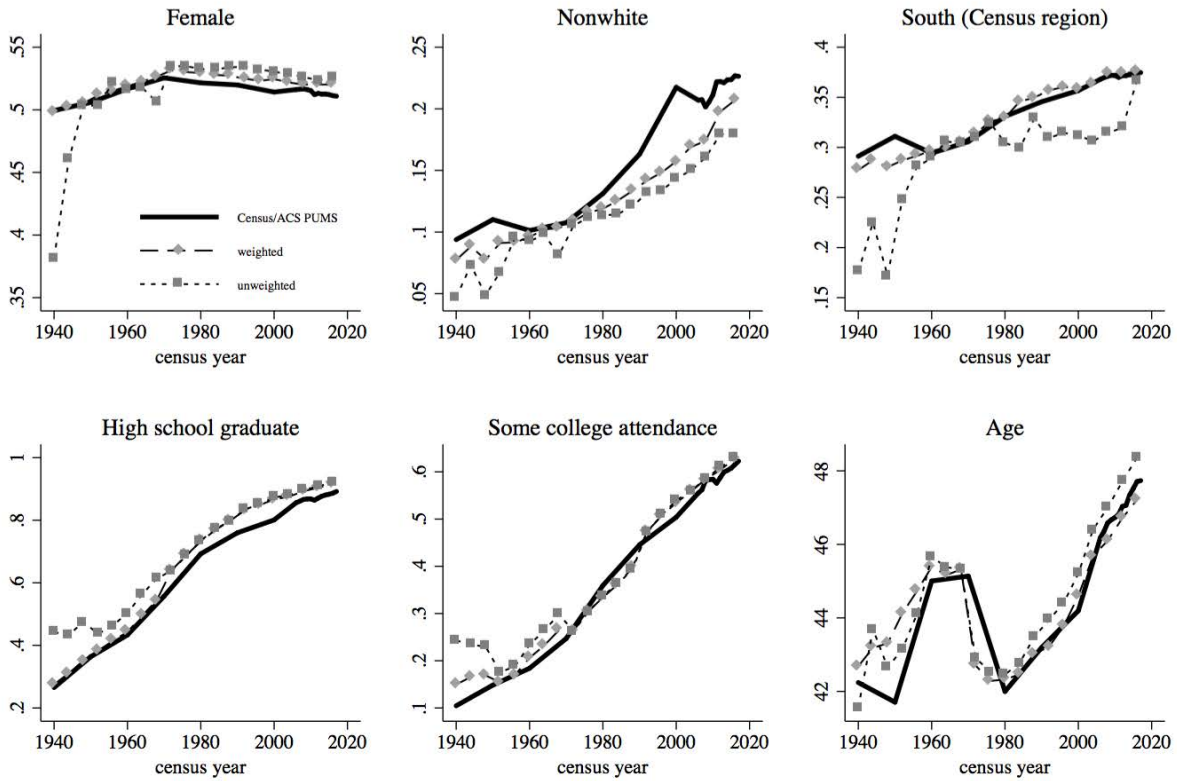
Data sources: We compile Gallup microdata from polls conducted from 1940-70 by the Gallup Organization and November CPS Voter Supplement microdata from ICPSR Study #60 (for 1972) and IPUMS CPS (Flood et al., 2018) (for 1976-2016). GSS data are drawn from the GSS 1972-2018 Cross-Sectional Cumulative Data file (Release 1) and ANES data from the ANES Time Series Cumulative Data File (1948-2016). See Data Appendix.

Notes: Graphs show trends in average demographic characteristics in the raw voter turnout series ("unweighted"); the voter turnout series weighted using sampling weights that we construct from the Census/ACS, which adjust Gallup demographics to the year x region x education x race x sex x birth cohort level and use survey-provided weights for the November CPS, GSS, and ANES ("weighted"); and average demographic characteristics as calculated from Census and ACS microdata (Ruggles et al., 2019).

B. Party Identification Series

Data sources: Microdata on Democratic party identification are from the replication archive of Gillion, Ladd, and Meredith (2018) (for 1953-2012), Gallup polls spanning 1948-52 and 2013-17 that we collected from the Roper Center, the ANES Time Series Cumulative Data File (1948-2016), and the GSS Cross-Sectional Cumulative Data 1972-2018 (Release 1). See Data Appendix.

Notes: Graphs show trends in average demographic characteristics in the raw party identification series ("unweighted"); the party identification series weighted using sampling weights that we construct from the Census/ACS, which adjust Gallup demographics to the year x region x education x race x sex x birth cohort level and use survey-provided weights for the GSS and ANES ("weighted"); and average demographic characteristics as calculated from Census and ACS microdata (Ruggles et al., 2019).

Voter Turnout in U.S. Presidential Elections, by Region: 1900-2016
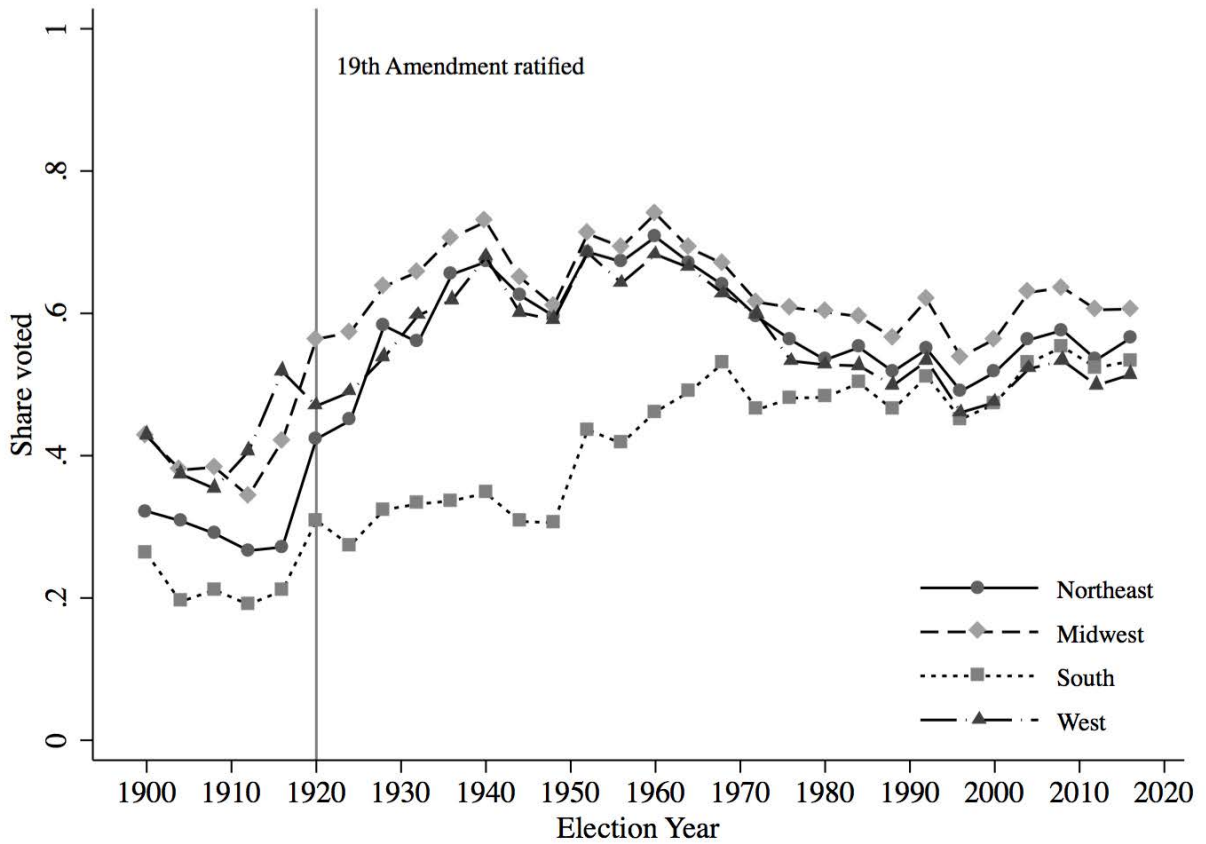

Notes: The numerator of the series represented by the solid black line is the regional presidential vote count, constructed by the authors from state-level vote tallies available at http://uselectionsatlas.org. The denominator of this series is regional voting-age population (ages 18 and up for 1972 forward+ and ages 21 and up in all earlier years), estimated from Decennial Census (1900-2000) and American Community Survey (ACS) (2005-16) Public Use Microdata Samples (Ruggles et al., 2019) for the subsample of states in a region with election returns. See Data Appendix. Regions are based on Census definitions.

Appendix Figure 3
Gaps in Voter Turnout by Race and Sex: Pooled Survey Data, 1940-2016
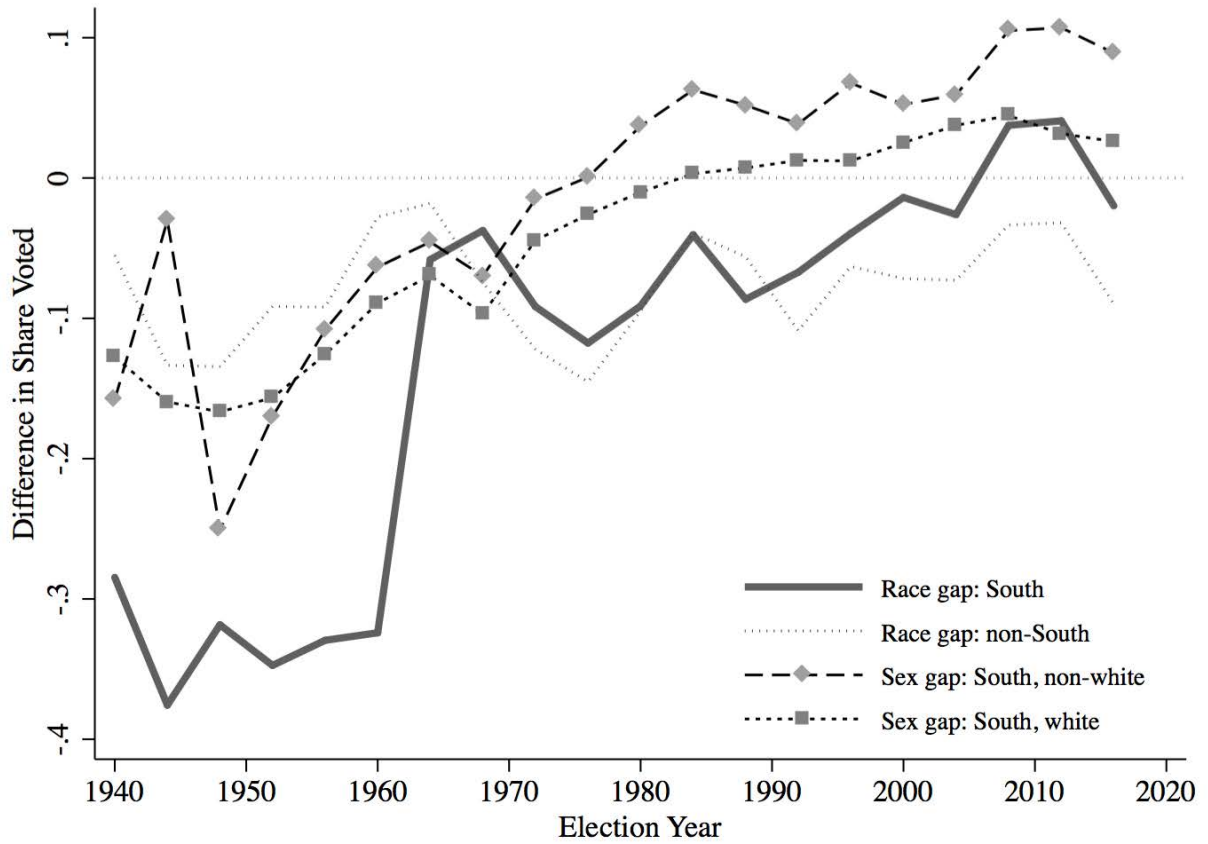
Notes: Survey data pool the Gallup, November CPS, GSS, and ANES series described in the notes to Figure 1. Statistics are weighted by survey-provided weights (for the CPS, GSS, and ANES) or author-constructed weights (for Gallup), with all weights re-normed to average to one within each survey-year. The figure plots the race gap in voter turnout (non-white-white), separately by region, and the sex gap in voter turnout (female-male) in the South, by race. South is the southern Census region.

Trends in Share of Votes for Democratic Candidate: Survey and Administrative Data, 1940-2016
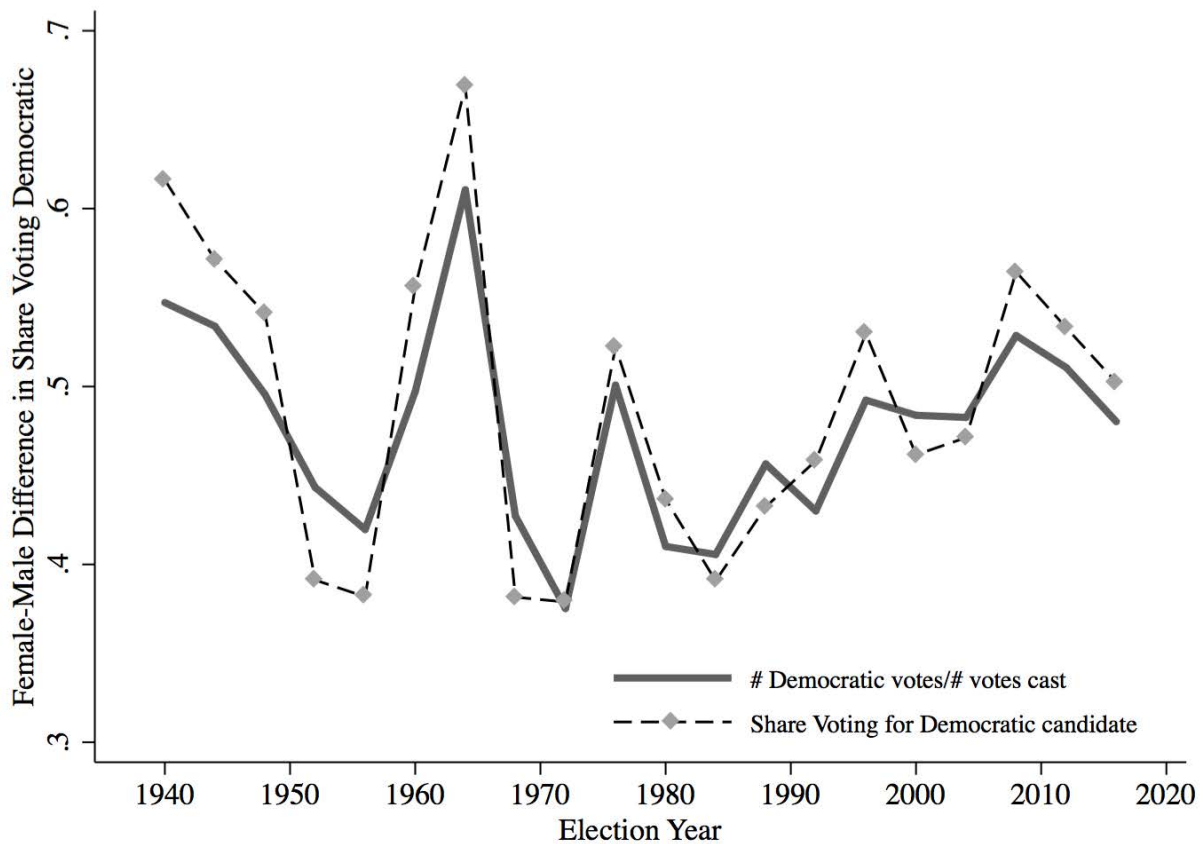

Data Sources: The numerator and denominator of the series represented by the solid black line are the national presidential vote count for the Democratic candidate and the national total presidential vote count, respectively, constructed by the authors from state-level vote tallies available at http://uselectionsatlas.org. The series represented by the dashed line is constructed from pooled survey data from Gallup (1940-68), the ANES (1952-2012), and the GSS (1972-2012). See Data Appendix.

Notes: We weight statistics from the Gallup microdata using weights that we construct from the Census, which adjust Gallup demographics to the year x region x education x race x sex x birth cohort level. (Birth cohorts are defined as described in the paper.) We weight statistics from the ANES and GSS using survey-provided weights.

Appendix Figure 5
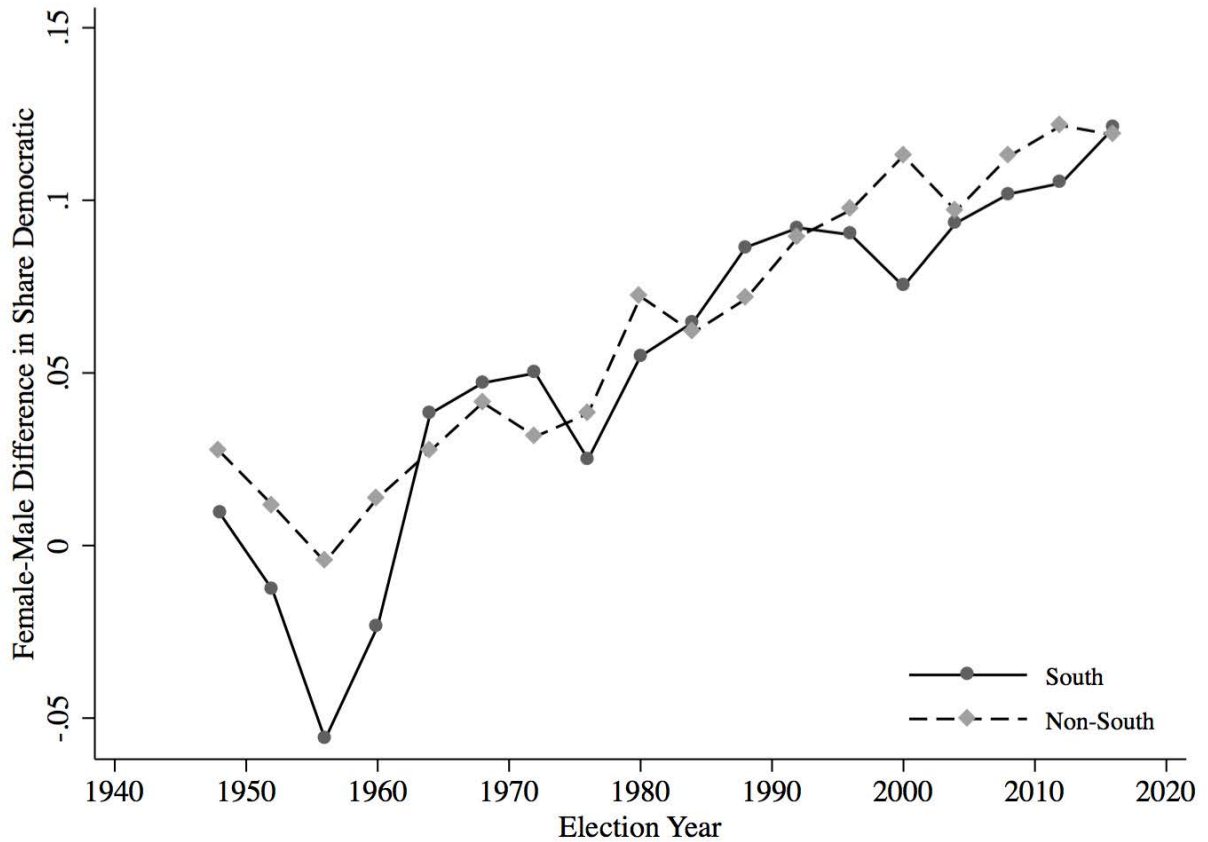**The Sex Gap in Republican Partisanship: Pooled Survey Data, 1940-2016**
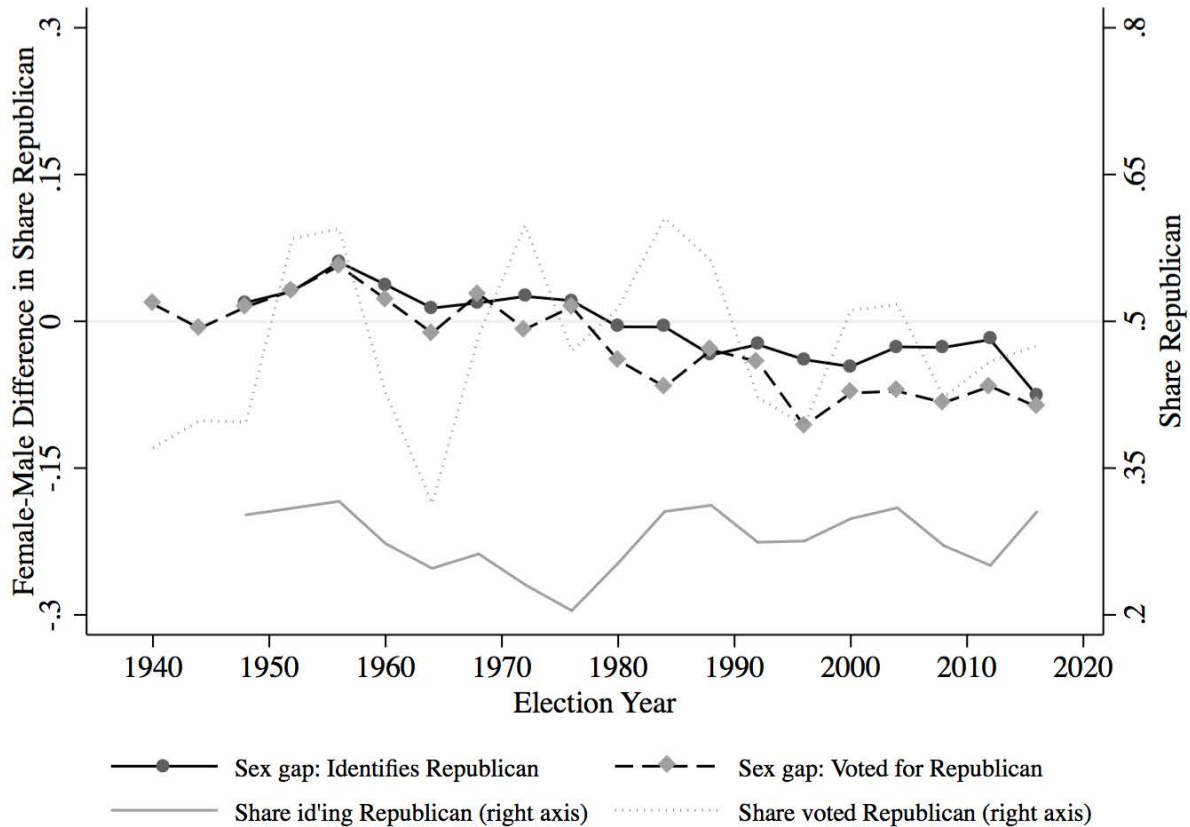
Data sources: Microdata on Republican party identification are from the replication archive of Gillion, Ladd, and Meredith (2018) (for 1953-2012), Gallup polls spanning 1948-52 and 2013-17 that we collected from the Roper Center, the ANES Time Series Cumulative Data File (1948-2016), and the GSS Cross-Sectional Cumulative Data 1972-2018 (Release 1). Microdata on voting for the Republican presidential candidate are from Gallup polls spanning 1940-70, the ANES Time Series Cumulative Data File (1948-2016), and the GSS Cross-Sectional Cumulative Data 1972-2018 (Release 1).

Notes: Statistics are weighted by survey-provided weights (for the GSS and ANES) or author-constructed weights (for Gallup), with all weights re-normed to average to one within each survey-year.

The Sex Gap in Democratic Partisanship, by Region: Pooled Survey Data, 1948-2016


Data sources: Microdata on Democratic party identification are from the replication archive of Gillion, Ladd, and Meredith (2018) (for 1953-2012), Gallup polls spanning 1948-52 and 2013-17 that we collected from the Roper Center, the ANES Time Series Cumulative Data File (1948-2016), and the GSS Cross-Sectional Cumulative Data 1972-2018 (Release 1).

Notes: Statistics are weighted by survey-provided weights (for the GSS and ANES) or author-constructed weights (for Gallup), with all weights re-normed to average to one within each survey-year.

Trends in the Sex Gaps in Voter Turnout, Without and With Adjustment for Cohort Effects

A. Voter Turnout

B. Identification with Democrats
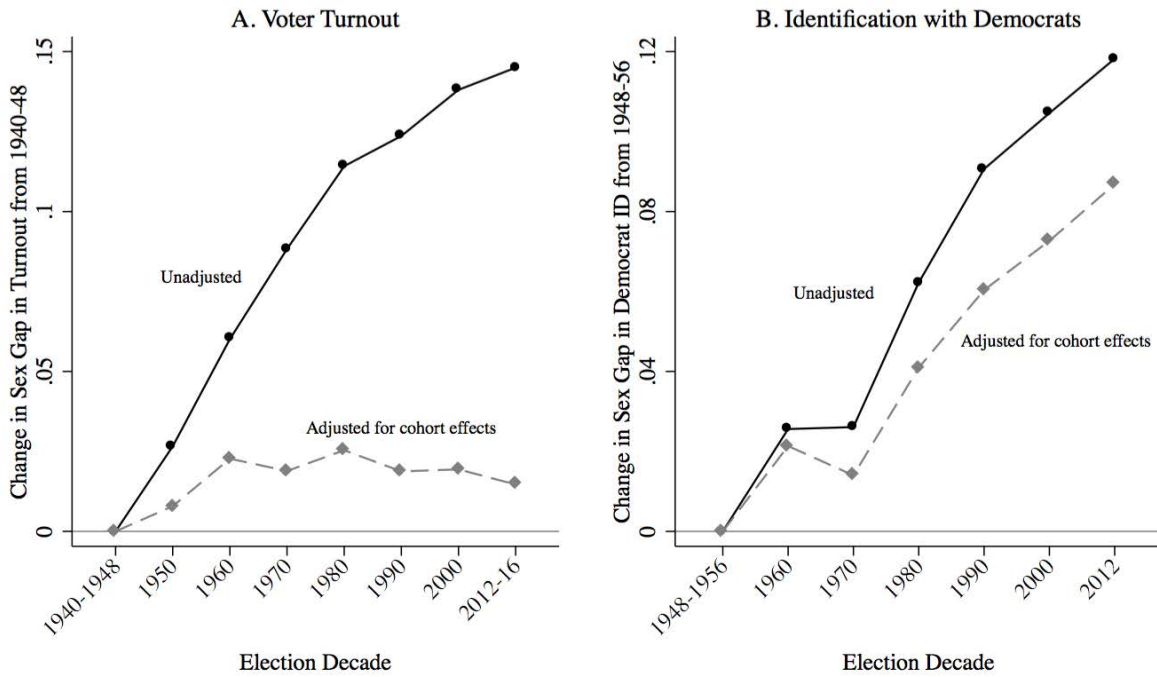
Data sources: Survey data pool the Gallup, November CPS, GSS, and ANES as described in the notes to Figures 1 and 3, for panels A and B respectively. The geographic unit to which we collapse are the single states and groups of states (27 total) identified in the 1976 November CPS.

Notes: The solid line in each panel plots change in the sex gap in the outcome from the base decade when we regression-adjust for state-group-by-sex effects ("unadjusted"), while the dashed line shows the change in the sex gap when we additionally include cohort-by-sex effects ("adjusted"). The sex gap is the female – male difference in the outcome. All regressions are weighted by the number of observations used to construct the dependent variable.