Votes for and by Women: How Did Women Vote after the Nineteenth Amendment?

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Abstract

While scholars always wondered to what extent womens votes contributed to the Republican landslide in the 1920 election, the existing evidence is mixed. This paper exploits variation in the proportion of women across counties and employs a difference in difference strategy to examine how women voted in the 1920 Congressional elections. It shows that counties with more women witnessed a larger increase in Republican strength. This effect is conditional on the proportion of blacks in the county, with counties in the Black Belt showing no effect. These findings provide supportive evidence for the contemporary narratives that women historically supported the Republican Party, while Southern women helped to maintain white dominance in the region. The paper runs a series of placebo regressions and shows that the partisan effect of female suffrage is not driven by pre-existing trends correlated with the proportion of women.

> 'Women oppose prohibition, are in favour of education (presumably because of their love of children), vote morally (referring in a vague way to their attitude toward prostitution) and voted for Wilson rather than Hughes (because the West voted for Wilson, and in the West women vote).' *(Ogburn and Goltra, 1919)*

1 Introduction and Overview

On August 18, 1920 Tennessee ratified the Nineteenth Amendment, which guaranteed voting rights to all women in all states and in all elections in the process. It was the last state necessary for the ratification process to be complete. In the elections on November 2, 1920, women in most states voted for the first time in general elections. The election ended in an historical landslide for the Republican Party and produced larger swings in the electorate than the 1896 contest. The war allowed the pro-business Warren G. Harding to unite the progressive and pro-business factions in the Republican Party in the face of resentment towards the Democratic incumbency. While most attribute the Democrats downfall to a public call for change after the war (Bagby 1962, pp. 1922, 150, 157; Hicks 1960, pp. 245; Kleppner 1987, pp. 144154; Saldin 2010, pp. 927), scholars have always wondered to what extent the Nineteenth Amendment may have contributed to the Republican victory in 1920.

The general narrative in the early twentieth century associated women with the Republican Party. Contemporary politicians, commentators and analysts expected women to vote Republican or reported anecdotal evidence that women registered as Republicans (Ogburn and Goltra 1919; Tingsten 1937; Willey and Rice 1924). Polling data recorded by sex showed that women in Illinois were more supportive of Harding than Cox (Goldstein 1973). While survey data documented a substantial gender voting gap after World War II (Box-Steffensmeier, De Boef, and Lin 2004; Edlund and Pande 2002; Inglehart and Norris 2000), the idea that women voted as a block prior to the 1950s has been frequently dismissed. This is mostly on the grounds that women voted as their husbands did, that sex was not as divisive as religion or class, that the observed differences rarely exceeded few percentage points and that partisan platforms did not differ much on matters that were important for women (Alpern and Baum 1985; Clart and Clark 2008, p. 2; Duverger 1955, p. 122; Freeman 2002, p. 2; Manza and Brooks 1998; Skocpol 1992, pp. 5056).

However, there are theoretical reasons to believe that, historically, women supported the Republican Party more than men. The developmental thesis argues that women historically supported conservative parties, changing their values only with long-term cultural and structural

changes in the last quarter of the twentieth century (Inglehart and Norris 2000). In particular, women's religiosity, morality and traditional role at the heart of the family may have been responsible for their historical alliance to the Republican Party (Tingsten 1937; Duverger 1955; Ogburn and Goltra 1919; Randall 1987; Norris 1988). Women were also overwhelmingly supportive of dry policies (Tingsten 1937); the link between religion, morality and prohibition never really evaporated (Kleppner 1987, pp. 2057). Some even speculated that Cox's 'wet' reputation might have contributed to women voting Republican in the 1920 elections (Bagby 1960, p. 151).

Women's socially conservative preferences, however, might not be the only channel that can explain their Republican tendencies. Some scholars argue that women valued progressive policies long before their realignment to the Democratic Party in the last quarter of the twentieth century. Indeed, there is ample evidence to suggest that the expansion of public budgets in the US has been significantly aided by the adoption of female suffrage (Carruthers and Wanamaker 2015; Miller 2008; Lott and Kenny 1999). In the 1920 election, Harding's pro-business orientation could hardly be considered progressive, yet the former progressives stayed with the Party and Harding's broad social programs would surely have impressed most progressive women (Bagby 1962, p. 149; Freeman 2002, p. 24; Gustafson 2001, p. 191; Lemons 1973, pp. 879).

Neither the developmental theory nor the economic thesis consider the specific context of the South. Much of Southern politics revolved around racial issues, with Southern Democrats upholding white supremacy by disenfranchising most of the black population (Besley, Persson and Sturm 2010; Keyssar 2000, pp. 303368; Kleppner 1987, pp. 163178). While white women in the South supported white supremacy, (Schuyler 2006, pp. 185187; Sims 1997, p. 189), Democrat politicians in the region were afraid that women would not support their partisan machines. Republican candidates, in turn, saw women's votes as a great opportunity (Schuyler 2006, pp. 8596). Indeed, the Republican Party made significant gains in the region in the 1920 election, although changes in the Black Belt, which stretched from Eastern Texas to Virginia and Maryland, were minimal. In counties with high black population, the cost of any Republican gains and the threat to white supremacy was at its highest. Contrary to the rest of the country, white Southern women in the Black Belt were incentivized to defend white supremacy.

Quantitative analyses of women's historical voting behavior are scarce. Moreover, the existing analyses of the 1920 election generally focus on presidential elections and exclude most, if not all, Southern states (Alpern and Baum 1985; Corder and Wolbrecht 2011). It follows that no study has, as yet, systematically examined electoral data from all states affected by the Nineteenth Amendment in Congressional elections. This is important as the Republican Party made

significant gains throughout the newly enfranchised states, while the changes were minimal in the Black Belt. Moreover, women were generally assumed to have weaker partisan loyalties, which may have allowed them to split their tickets between presidential and congressional candidates (Goldstein 1973, pp. 76, 134138, Schuyler 2006, p. 85).

In this paper I provide evidence for the contemporary narrative that associated women with the Republican Party. Moreover, I find that the national pro-Republican trend among women was reversed in the Black Belt, where women supported Democratic candidates as much as white men. These findings are compatible with the explanation that women aligned with the party that best represented their preferences, whether it be supremacist preferences in the Black Belt or progressive and prohibitionist tendencies in the rest of the newly enfranchised states. Women in most parts of the country voted distinctly from men and, as such, contributed to the Republican landslide in the 1920 election.

Empirically, I estimate women's voting behavior by analyzing the US House elections in the states where women voted for the first time to Congress in 1920. In a time before large-scale and reliable survey data, the aggregate electoral data offer the only possibility to examine how women voted in the 1920 elections. It is necessary to isolate the effect of suffrage from other possible confounding factors. For example, if suffrage is adopted in localities which also exhibit socio-economic characteristics that determine partisan outcomes, it is difficult to confidently link partisan outcomes to the reforms. My estimation strategy goes a long way towards tackling this issue. I exploit a variation in the strength of suffrage within a single country where the reform was imposed on all states by a federal Amendment. In particular, I compare counties which received a higher 'dosage' of treatment to those with a lower treatment exposure. To this end, I exploit the variation in the proportion of eligible women across all counties in the sample of the newly enfranchised states. The idea is that counties with more women were more exposed to the treatment; therefore, they should have seen a larger increase in Republican support. This strategy thus allows me to eliminate any concerns that the treatment effects suffer from the selection bias that often halts cross-sectional studies. The idea of using the 'dosage' of suffrage in examining its effects on political outcomes was first applied by Berlinski and Dewan (2011). This technique is now frequently used to estimate the effects of suffrage on both political and economic outcomes (Carruthers and Wanamaker 2014; Kroth, Larcinese and Wehrner 2015; Larcinese 2014; Vernby 2013).

This empirical strategy, however, could still return biased and inconsistent estimates if Republican support was trending differently in counties with different treatment exposures, for example,

if there were more eligible women in 1920 in counties which also witnessed faster growth in Republican support. To tackle this possibility I employ two strategies. First, I included a number of socio-economic controls at their pre-suffrage levels, their change over the five years prior to suffrage and district specific shocks. Second, I ran a series of placebo tests confirming the validity of the parallel trend assumption prior to the enfranchisement. This means that counties with more eligible women in 1920 did not witness any trend in partisan outcomes prior to the reform. As part of robustness checks, I provide evidence that the effect was not driven by registration and other restrictive requirements such as poll taxes and literacy tests. Finally, analyzing electoral data from Chicago where authorities kept polling records by sex, I provide supportive evidence that the effect was not driven by higher mobilization of either Republican men or Republican women.

2 Background: The 1920 Election

At the turn of the century, partisan support displayed significant regional patterns. The Democratic Party controlled the South by disenfranchising most of the black population using both restrictive, formal and informal measures, effectively diminishing political competition and voter turnout in most of the region (Besley, Persson and Sturm 2010; Keyssar 2000, pp. 303368; Kleppner 1987, pp. 163178). The Republican Party, in turn, enjoyed a lead above 20% in around one-third of counties outside the South (Kleppner 1987, pp. 3442). This alignment generally produced a moderate Republican majority at the national level (Sundquist 1973, p. 166). After a period of Democratic upheaval under President Wilson, the Republican Party regained some control by the 1918 election, achieving full control in the 1920 elections (Kleppner 1987, p. 141). The scale of the Republican victory in 1920, however, exceeded contemporary expectations (Bagby 1962, p. 158). The elections produced larger swings in the electorate than the realignment of 1896 (Saldin 2010, p. 83). The Republican Party increased its share of the vote in the presidential elections by approximately 14%, capturing the presidency, gaining sixty-three seats in the House and eleven in the Senate. Even the solid Democratic control of the South was challenged by Republican gains in the region, particularly in the Upper South.

The landslide of the Republican Party victory in 1920 is attributed by many to a public call for change after the war (Hicks 1960, pp. 245; Kleppner 1987, pp. 144154; Saldin 2010, pp. 927). The war allowed the pro-business Warren G. Harding to unite the Republicans in the face of general resentment of the Democratic incumbency. Wilson's engagement in the war, together

with his unsuccessful campaign for the League of Nations, extensive war-time regulatory measures and the poor post-war economy became too unpopular with the public (Bagby 1962, pp. 1922, 150, 157; Kleppner 1987, pp. 144154; Saldin 2010, pp. 927). The apparent antipathy to Wilson's administration forced Cox to distance himself from his predecessor, whilst defending Wilson's international efforts. He never recaptured the votes of German, Italian and Irish Americans and women that Wilson's administration alienated during the war (Bagby 1962, pp. 141146, 152155).

The issues that were relevant in the 1920 election, however, went beyond disagreements over Wilson's administration. The two main parties differed on several issues that were thought to be relevant to the new women voters. For a start, although the war shifted both parties to the right and marked an end to the Progressive Era (Bagby 1962, pp. 161167, Gould 2001, p. 80), neither party could entirely ignore the progressive movement. While Harding's nomination meant a victory for the pro-business wing over the progressives in the Republican Party, former progressives stayed with the party. The differences between the two presidential candidates were not large enough to warrant them supporting Cox, it was the Southern fraction of the Democratic Party, seen as the main reactionary force, that needed to be checked. Cox, while slightly less conservative, was thus a candidate of both the South and the reactionaries (Bagby 1962, pp. 146150). Moreover, Harding successfully appeased the urban progressive wing in the Republican Party and women with broad social programs (Lemons 1973, pp. 879; Gustafson 2001, p. 191; Bagby 1962, p. 149).

Second, the anti-slavery legacy of the Republican Party attracted black voters, particularly in the face of Cox‘s blatant racism and the segregationist faction of his party. The Republicans worked hard to register newly enfranchised black women in Border States and once again relied on their votes in the North (Bagby 1962, p. 152). Third, although the old associations between prohibition and the Republicans became less divisive by 1920, it never completely evaporated (Kleppner 1987, pp. 205207). Some even speculated that Cox‘s ‘wet’ reputation and Harding's calculated ‘dry’ appeal to women might have contributed to women voting Republican in the 1920 elections (Bagby 1960, p. 151).

The anti-slavery and prohibition movements partially gave rise to the suffrage movement (Freeman 2002, p. 42; Kleppner 1987, p. 172; Saldin 2010, p. 79). Of the two major parties, the Republican Party was considered marginally more supportive of female suffrage and more favorable to women; most early suffragists were publicly supporting the Republican Party (Banaszak 1996, pp. 110-112; Freeman 2002, p. 24; Gustafson 2001, p. 194). The Nineteenth Amendment was passed in a Republican Congress; a vast majority of the ratifying states were

Republican controlled (Lemons 1973, p. 87). The fiercest opposition, in turn, came from the Southern Democrats (Banaszak 1996, pp. 110112; Freeman 2002, p. 50; Schuyler 2006, p. 26). Both Democrats and Republicans, however, failed to show serious efforts to enfranchise women before the war (Andersen 1996, p. 77), only lobbying for their support before the 1920 election (Bagby 1962, p. 152; Gustafson 2001, p. 194; Lemons 1973, p. 87). Some even interpreted Wilson's turn from a reluctant to vehement supporter of suffrage as a strategic calculation to capture women's votes (Link 1954, p. 60; Lunardi and Knock 1980).

3 Related Literature and Contribution

Scholars have always wondered to what extent women contributed to the victory of the Republican Party in 1920. Ample historical evidence shows that contemporary politicians, commentators and analysts associated women with the Republican Party. The newspapers frequently expected women to align with the Republicans and reported anecdotal evidence that women voted or registered as Republicans.[1] For example, just after the 1920 election, the *New York Times* headline claimed 'Mrs. Livermore attributes half of the Republican Majority to Women's Efforts', quoting the head of the Women's Republican Committee of New York State. The earliest studies often concluded that the early women voters leaned to the Republican Party (Ogburn and Goltra 1919; Tingsten 1937; Willey and Rice 1924). Most importantly, polling data recorded by sex in the 1920 election show that women in Illinois were more supportive of Harding over Cox (Goldstein 1973). The Republican gender gap emerged in 95% of all counties in Illinois in the 1920 election, half of which exceeded a gap of 4%.

This contemporary narrative that associated women with the Republican Party, however, was later questioned by many commentators and scholars. Immediately after suffrage, many called the reform a 'failure,' mainly pointing to its subtle effects on partisan politics or low voter turnout among women (Andersen 1996, p. 2; Freeman 2002, p. 170; Lemons 1973, pp. 110112). This skepticism persists today. The idea that women voted as a block in the 1920 election is frequently dismissed (Andersen 1996, p. 153; Bagby 1962; p. 160; Clark and Clark 2008, p. 2; Freeman 2002, p. 2; Kleppner 1987, p. 178; Manza and Brooks 1998; Skocpol 1992, pp. 505506). This skepticism generally relies on common perceptions such as women voted like their husbands, that sex was not as divisive as religion or class, that the observed differences rarely exceeded few percentage

[1] *Chicago Tribune* September 12, 1920; *New York Times* October 10, 1920; *New York Times* November 3, 1920 *Minneapolis Morning Tribune* September 14, 1920 (see Corder and Wolbrecht 2011; Alpern and Baum 1985).

points and that partisan platforms did not differ much on matters that were important for women. While this skepticism captures important aspects of the historical context, quantitative analyses of women's voting behavior in the 1920 election are scarce. This is not surprising given the fact that the most commonly used techniques, such as large-scale surveys, were hard to find or mostly unreliable throughout the interwar period.[2] As such, the only way to make quantitative inferences about women's voting behavior in the 1920 election is with aggregate electoral data. The methodological challenges of such approaches then often only add to the skepticism.

Two studies attempted to answer the question of how women voted in the 1920 election and both provide mixed evidence. Alpern and Baum (1985) analyze sixteen Northern states and show that while women in the Mid-Atlantic states supported Harding at a higher rate than men, these trends were reversed in the Midwest and New England. Here, not only did Harding's victory not rely on women's votes, but women even aligned with the Democrats. Overall, they conclude that while women's votes did not copy those of men, Harding's victory at the national level could not be attributed to women. The most recent analysis applying a Bayesian approach to ecological inference also provides mixed evidence (Corder and Wolbrecht 2011). The authors found that women were more likely to support Harding in most of the ten states they studied, while women in Virginia were more likely to support Democrats. However, they report that these differences were rarely statistically different from zero and conclude that, as a whole, women's votes did not significantly contribute to the Republican landslide in 1920.

While both of these studies provide comprehensive analyses of electoral data, two points should be made. First, both studies focus on a selected number of states with most, if not all, of the Southern states, particularly the area of the Black Belt, being excluded from the analysis. This is important as the Republican Party made significant gains in the region, particularly in the Upper South. Second, both studies analyze presidential elections only. This is important as split-ticketing may have been more pronounced among new voters and this is generally attributed to women's weaker partisan attachments (Andersen 1996, p. 100; Goldstein 1973, p. 76, 134138, Schuyler 2006, p. 85). In sum, no study has yet systematically examined electoral data from all states affected by the Nineteenth Amendment in Congressional elections. The aim of this study is to analyze a larger, new data set.

[2]For example, Gallup polls were founded only in 1935 and did not start collecting election data before 1936.

3.1 Theoretical Explanations for Women's Partisan Tendencies

Along with contemporary anecdotal evidence, there are theoretical reasons that link women to the Republican Party. The developmental thesis of the gender gap argues that in the absence of the more recent structural and cultural trends which affected women's values, women aligned with conservative parties (Inglehart and Norris 2000). While this theory aims to explain women's voting behavior after World War II, it is plausible that its argument extends to the first half of the twentieth century. Most contemporary explanations repeatedly stress women's social conservatism as a possible channel for their Republican tendencies (Tingsten 1937; Duverger 1955; Ogburn and Goltra 1919; Randall 1987; Norris 1988). American women at the turn of the twentieth century tended to be more religious than men, overwhelmingly supported temperance and maintained strong moral authority both at home and in their communities (Goldstein 1973, 168175; Skocpol 1992, pp. 323328; Tyrrell 1991; US Census Bureau 1926, pp. 1419). In the 1920 election, Harding and the Republican Party were, on the whole, more supportive of 'dry' policies; the link between religion, morality and prohibition never really evaporated (Bagby 1960, p. 151; Kleppner 1987, pp. 205207).

However, the conventional wisdom that women held conservative preferences is not the only explanation for their political inclinations. Many argue that women, in fact, held progressive and welfare preferences throughout the twentieth century. Scholars have long emphasized women's economic vulnerability as a predictor of their redistributive preference (Edlund and Pande 2002; Iversen and Rosenbluth 2006; Lott and Kenny 1999), while the expansion of public budgets in the West probably would not have been possible in the absence of female suffrage (Carruthers and Wanamaker 2015; Lindert 1994; Miller 2008; Lott and Kenny 1999). In the US, the progressive activism of women in the first half of the twentieth century has been at the heart of the Progressive era (Andersen 1996; pp. 153159; Skocpol 1992, pp. 56, 354; Dye 1991, pp. 19). For example, the Sheppard-Towner Act of 1921, which aimed to reduce maternal and infant mortality, is not only attributed to women's lobbying efforts, but also to politicians' fear that failure to act would be costly at an electoral level (Lemons 1973, p. 157; Skocpol 1992, pp. 497506). Not surprisingly, the Progressive Party enjoyed substantial support among women, at least until its members re-joined the Republican camp (Goldstein 1973, p. 138; Gustafson 2001, p. 116). In the 1920 election, Harding's pro-business orientation could hardly be considered progressive, yet former Progressives stayed with the party. Harding's social programs attempted to attract women, most of whom were on the progressive wing of the Party (Bagby 1962, p. 149; Freeman 2002, p. 24; Gustafson

2001, p. 191; Lemons 1973, pp. 879). To the extent that the Republican Party better addressed women's progressive preferences in the 1920 election, the adoption of the Nineteenth Amendment should have produced a Republican shift.

Neither the developmental theory nor the economic thesis, however, consider the specific context of the South. Much of Southern politics revolved around racial issues, with Southern Democrats controlling the region by disenfranchising most of the black population (Besley, Persson and Sturm 2010; Keyssar 2000, pp. 303368; Kleppner 1987, pp. 163178). Fearing that women's suffrage might bring the downfall of white supremacy, Southern Democrats fiercely opposed it (Banaszak 1996, p. 111; Sims pp. 178180). Indeed, the Nineteenth Amendment was rejected by eight states, all of which were in the South. How Southern white women voted in the 1920 election, however, is still contested. Some argue that white women helped to uphold white supremacy (Sims 1997, p. 189). In fact, no organization of Southern white women challenged Jim Crow in the 1920s (Schuyler 2006, pp. 185187). Others suggest that the suffrage benefited the Republican candidates (Schuyler 2006, pp. 97101). Democratic politicians were afraid that women would benefit the Independents or that they would split their votes. Republican candidates, in turn, were often ready to court white women' votes by supporting racial hierarchy in the region (Schuyler 2006, pp. 8596).

While woman's suffrage did not lead to a Republican landslide in the South, the Party made significant gains in the 1920 election. But the South was not a monolith, nor was Republican success uniform throughout the region. The party had significantly increased its strength in the Upper South, while changes in the Deep South were minimal. The area of the Black Belt, in particular, remained in the strong control of the Democratic Party. The Black Belt was historically heavily reliant on agriculture, signified by a large proportion of the black population. In precisely these areas, the cost of any Republican gains and the threat to white supremacy was at its highest. It follows that white women in the Black Belt might defend white supremacy and vote Democrat, together with white men. White women in other Southern areas might have perceived Republican gains as less threatening and supported the Republican candidates as much as their Northern counterparts.

4 Data

The empirical analysis is based on a dataset that covers all counties without boundary changes before and after the Nineteenth Amendment in all states affected by the reform.[3] The electoral returns were gathered from the United States Historical Election Returns, 18241968 (ICPR 00001). The socio-economic indicators are from Historical, Demographic, Economic, and Social Data: The United States 17902002 (ICPSR 02896). Figure 1 shows a map of states included in the sample. As most states in the West gave women full voting rights prior to the Nineteenth Amendment, the sample consists mostly of states in the Northeast, Midwest and the South. The sample excludes two Southern States, Mississippi and Georgia, which defied the Nineteenth Amendment by failing to update the registration deadline for newly enfranchised women (Andersen 1996, p. 50; Schuyler 2006, p. 72). The sample also includes three states, Oklahoma, Michigan and South Dakota, which gave women full voting rights before the Nineteenth Amendment, but where women voted for the first time to Congress only in the 1920 election.[4]

5 Descriptive Statistics

5.1 Republican and Democratic Vote Shares 1918-1920

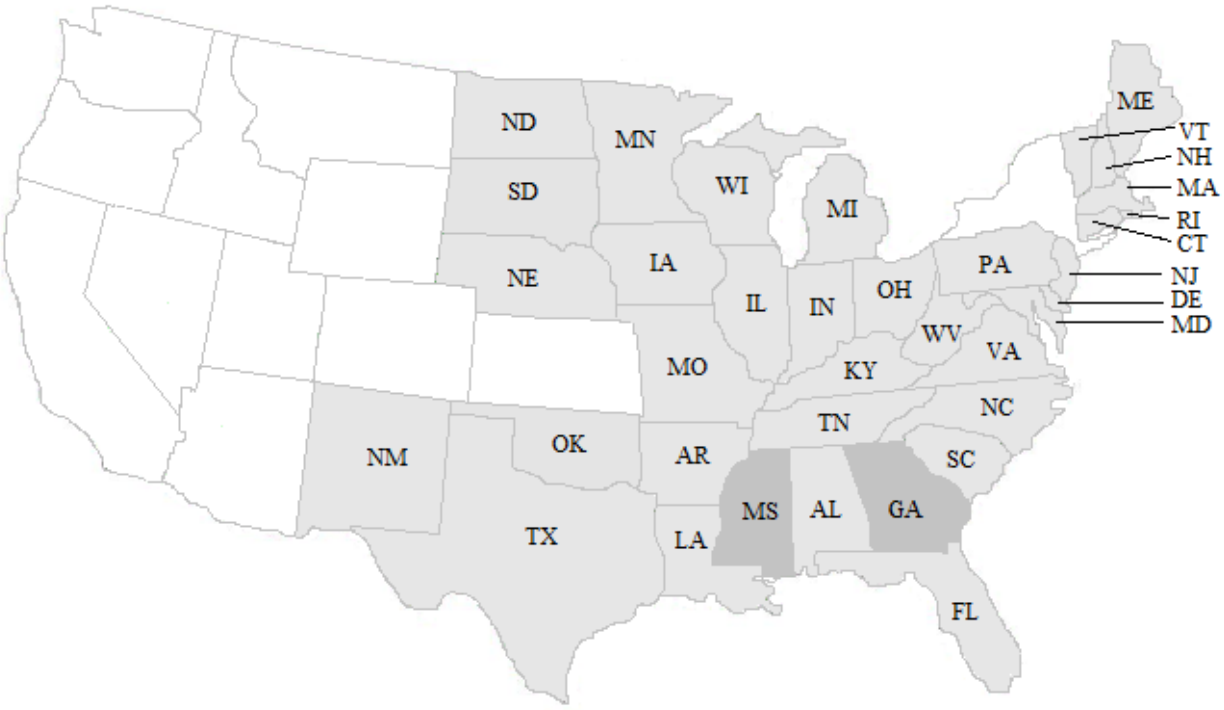
Figure 2 displays the change in support for Republican and Democratic candidates between the 1918 and 1920 elections to the House of Representatives. In all states, public support for the Republican Party rose from 46.4% to 53.9%, increasing its share of the vote by about 7.6%. Support for Democratic candidates dropped by 5.7%. Since women in some states had already voted to Congress in the 1918 elections, we can compare trends in the sample states where women voted for the first time to the House in 1920 to states where women had already voted in 1918 (that is, in states excluded from the sample). As we would expect, while the Republican Party increased its support by nearly 12% in the sample states, it lost 6% in the states where women had already voted to Congress in 1918.

However, these results do not consider candidates who ran under several party labels, such as 'Republican and Prohibition' in New York State. Most of these ran alongside candidates from the main Republican Party and therefore rarely attracted large number of voters. However, some of

[3]Absentee votes, soldier votes and at-large seats were excluded from the analysis. Only about 1.6% of counties changed boundaries between 1920 and 1918 and about 2.9% between 1918 and 1916.

[4]The inclusion of these states does not alter the substantive results, as shown in the Appendix.

Figure 1: States where women voted to Congress for the first time in 1920.



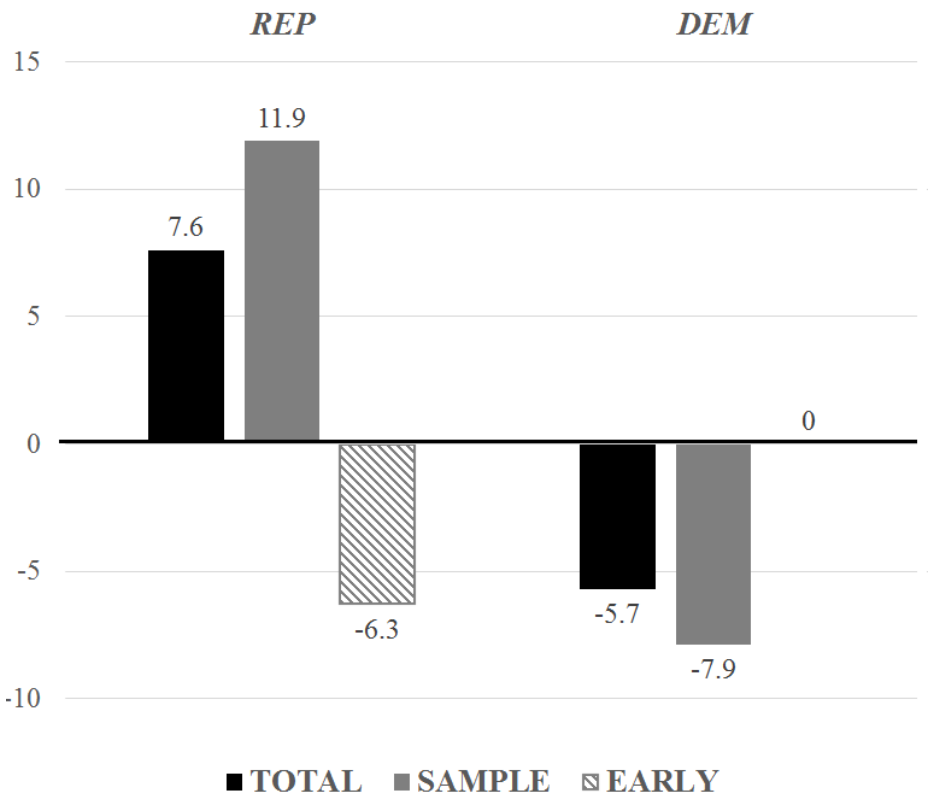
Note: States where women voted for the first time in Congressional elections in 1920 are light grey. Dark grey depicts states which were affected by the Nineteenth Amendment, but defied it in the 1920 election.

these candidates in the West and New York State ran unopposed by the main party and received considerable support. If such coalitions were included, the difference between the 'sample' and 'early' samples for the Republican Party would be significantly reduced: the Republicans would have gained 6.9% in the early sample. At the same time, even if such coalitions of the main and third parties were considered as support for the Republican Party, the increase in support would remain higher in the treated sample.

5.2 Key Independent Variable: Female Vote

In order to estimate the effect of female suffrage on partisan outcomes, I exploit the variation in the proportion of women across counties. My key independent variable, the female vote, thus refers to the proportion of eligible women of voting age at the county level (see Figure 3). The

Figure 2: Change in Republican and Democratic support between 1918 and 1920 Elections to the U.S. House of Representatives, by sub-samples.

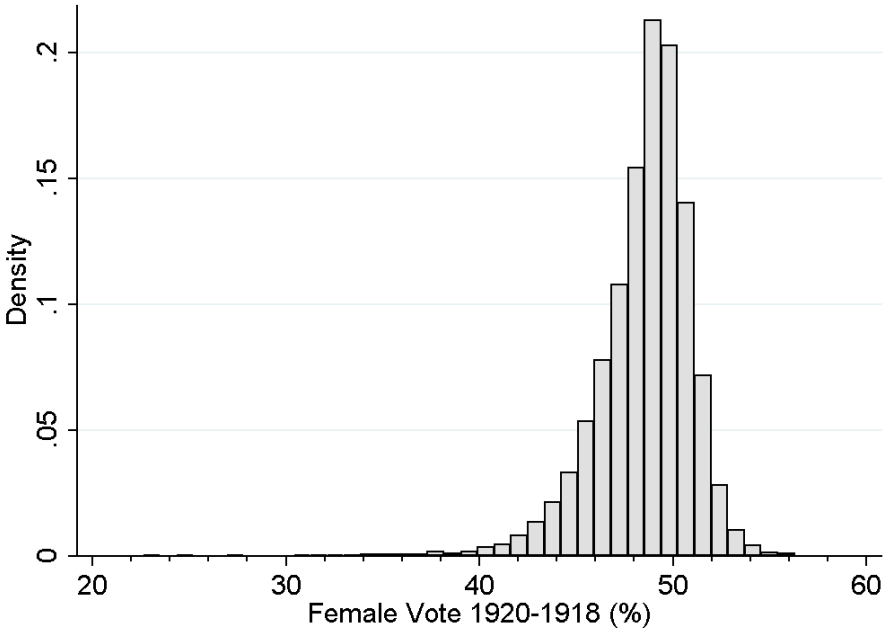


Notes: 'Total' includes all states. 'Sample' refers to states in the main sample where women voted to Congress for the first time in 1920. 'Early' includes all states which adopted full female suffrage before the Nineteenth Amendment and where women voted to Congress in the 1918 elections.

proportion of adult women across counties in the sample varies significantly, with 90% of all observations between 44.2% and 51.8%. There are counties with as few as 22.7% of women and some with as many as 56.3%. The average female vote across all newly enfranchised counties is 48.6%; the median is slightly to the right of the mean (48.9%).

The proportion of women across counties, however, is not exogenously assigned. Those with a larger proportion of women of voting age can differ systematically from counties with a lower proportion of women. Indeed, in my sample, more women were in counties with higher population density, manufacturing output, crop value and membership in the largest denominations (see correlates of the female vote in the Appendix). This is not surprising, as more remote areas have been known to show higher sex ratios, often reflecting immigrants attraction for male-

Figure 3: Distribution of the female vote in all counties included in the sample.

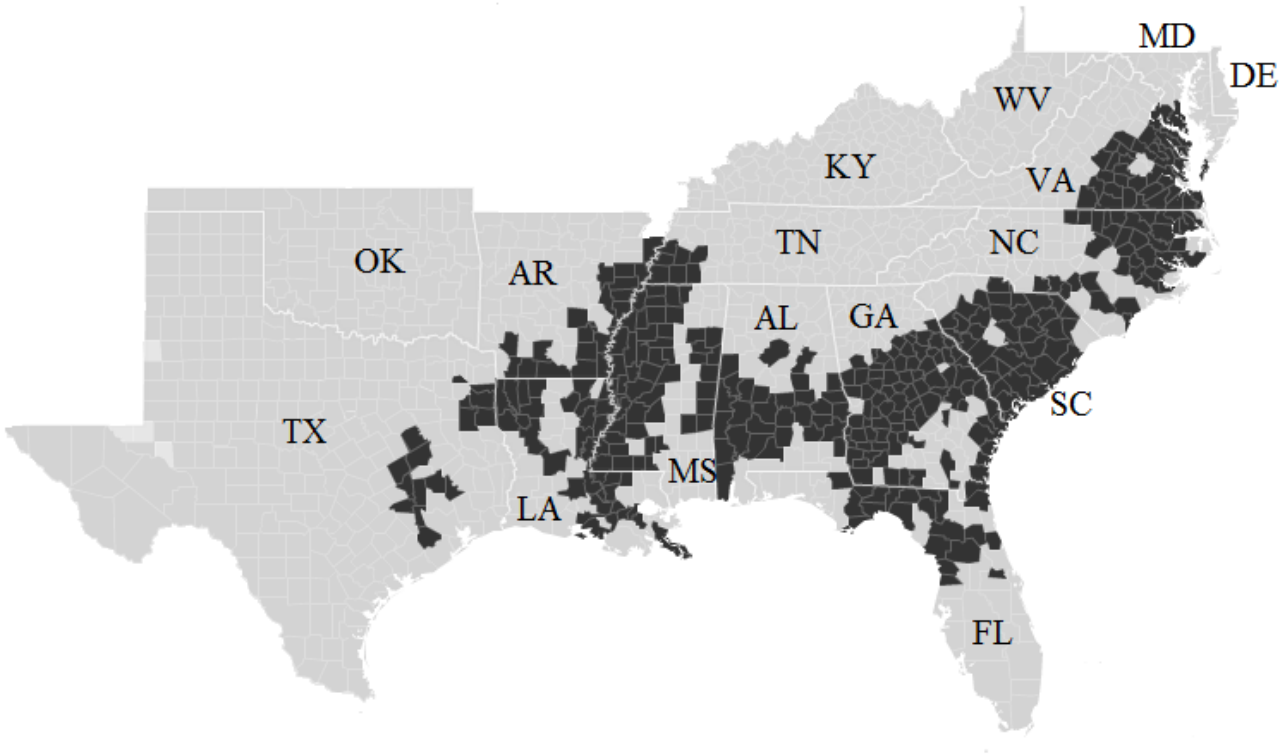


dominated industries, such as mining and railroad construction (Hobbs and Stoops 2000, pp. 6263). Moreover, in the 1920s, there were five women church members for every four men. The Methodists, in particular, had about two women for every man (US Census Bureau 1926, pp. 1419). If the county characteristics that vary systematically with the proportion of women were also correlated with vote choice, a model that regresses partisan support on the proportion of women would return biased and inconsistent estimates. In this paper, I therefore regress change in partisan support before and after the election on the proportion of women (effectively change in the proportion of the newly enfranchised) thus controlling for fixed-county characteristics that could confound the true relationship.

5.3 Plotting the Change in Partisan Vote Shares on Female Vote

Figure 4 depicts the Black Belt in the South, defined as counties with a higher proportion of black population than the 90^{th} percentile of the black distribution in the sample. This cut-off point represents 38.6%. All counties with a higher proportion of adult black population are in the South. Figure 5 plots the change in the Republican vote share on the female vote. Since

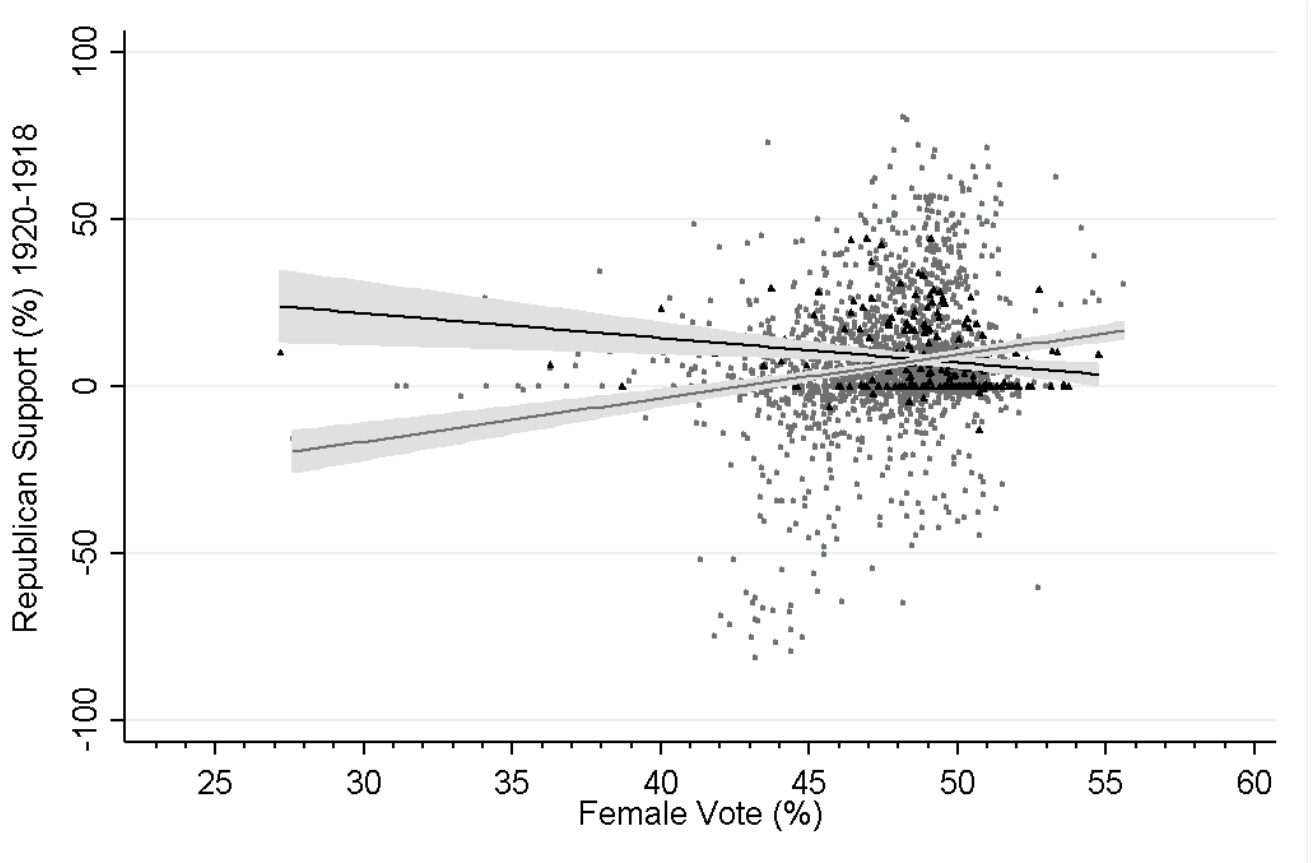
Figure 4: The Black Belt in the South in 1920.



Notes: Dark areas represent counties with a black population higher than 38.6%, that is, the 90th percentile of black distribution in the sample.

the effect of suffrage should be conditional on the proportion of blacks in the South, the fitted line (with 95% confidence intervals) is shown for Southern black counties. All other counties are shown separately. Figure 5 reveals a positive correlation between the change in the Republican vote share and the female vote in white counties, while there is a negative correlation in the counties of the Black Belt. This pattern reverses for the Democratic vote share, as shown in the appendix. While the figure should be interpreted with caution as it does not control for district and county-level characteristics, it provides correlational evidence that women voted for the Republicans in mostly white areas.

Figure 5: Plotting change in the Republican support (1920-1918) on the female vote by 90th percentile black.



Notes: The grey dots and fitted line correspond to white counties. The black dots and fitted line represents trends in the Black Belt.

6 Empirical Strategy: Difference in Difference

To uncover the causal relationship between suffrage and partisan outcomes, it is necessary to isolate the effect of suffrage from possible confounding factors. For example, if suffrage is adopted in localities which also exhibit socio-economic characteristics that determine partisan outcomes, it is difficult to confidently link partisan outcomes to the reforms. Moreover, the extension of women's rights was a calculated move by politicians in power who always considered its likely impact (Braun and Kvasnicka 2013; Geddes and Lueck 2002; Przeworski 2009). As such, studies

that exploit variation in the adoption of female suffrage across states or countries inevitably suffer from possible selection bias. My estimation strategy goes a long way in tackling this issue. I exploit a variation in the strength of suffrage within one country where the reform was imposed on all counties by a federal amendment. I compare counties who received higher 'dosage' of treatment to counties with lower treatment exposure. To this end, I exploit the variation in the proportion of eligible women across all counties in the sample. The idea is that counties with more women were more exposed to the treatment and therefore should see a larger increase in Republican support. This strategy thus allows me to eliminate any concerns that the treatment effects suffer from selection bias that halts cross-sectional studies.

Using the sample of all counties where women voted for the first time to Congress in 1920, I estimate the following difference in difference specification:

$$\Delta Y_{i1920-1918} = \alpha + \beta FemaleVote_{i1920} + \Delta\epsilon_{i1920-1918} \tag{1}$$

where ΔY refers to a change in the partisan (Republican or Democratic) support between the first election after the enfranchisement in 1920 and the last election before the enfranchisement in 1918 in county i. *Female Vote*refers to the proportion of eligible women in 1920. This variable effectively captures a *change* in the proportion of newly enfranchised that were exposed to the treatment, which goes from 0 in 1918 to a proportion of eligible women in 1920. All regressions include a constant which accounts for a trend across all enfranchised counties or a coefficient on a single 1920 year dummy in a typical difference in difference setting (Wooldridge 2010). Further, given that T=2, equation (1) is equivalent to a fixed effects strategy with county and year dummies. One advantage of this approach is that unobserved fixed county characteristics that could confound the true relationship between suffrage and partisan outcomes are accounted for.

However, the estimates could still be biased and inconsistent if Republican support was trending differently in counties with different treatment exposure. In other words, if county characteristics were correlated with trends in partisan support, the estimates might be spurious. This would occur if there were more eligible women in 1920 in counties which also witnessed faster growth in Republican support driven, for example, by black migration from the South to the North. In tackling this possibility I employ two strategies. First, I include a number of socio-economic variables at their pre-suffrage levels, their change over five years prior to suffrage and district specific shocks. The controls consist of population density, value of all crops, total manufacturing output and proportion of adult blacks, illiterates and main religious affiliations. Including the

change in these control variables addresses some concerns that the effect of interest might be driven by trends such as migration from South to North. Second, I regress the change in partisan outcomes between the 1918 and 1916 elections on the proportion of eligible women in 1920. I show that these placebo tests confirm the validity of the parallel trend assumption prior to the enfranchisement. This means that counties with more eligible women in 1920 did not witness any trend in partisan outcomes prior to the reform.

The idea of using the 'dosage' of suffrage in examining its effects on political outcomes was first applied by Berlinski and Dewan (2011) and is now a frequently used technique in estimating the effects of suffrage on both political and economic outcomes (Carruthers and Wanamaker 2014; Kroth, Larcinese and Wehrner 2015; Larcinese 2014; Vernby 2013). Contrary to some of the studies that estimate the effect of suffrage on partisan outcomes, however, this study poses an additional advantage. Since women were enfranchised in one fell swoop, the 'dosage' of suffrage across counties cannot be manipulated by the government. For example, Berlinski and Dewan (2011) exploit the fact that male suffrage was gradually extended to men of a certain income. However, precisely because the income level was set by the government, it could be manipulated by the authorities in order to minimize (or enhance) its effect. In this study, the Nineteenth Amendment did not grant votes to some women in a county and therefore did not allow the authorities to manipulate its impact. This strategy thus eliminates any concerns that the treatment is endogenously assigned

7 Results: Measuring the Effects of Female Suffrage on Partisan Support

As shown in Figure 2, the pro-Republican shift was most profound in states where women voted for the first time to Congress in 1920. In this section I address whether this pro-Republican shift was caused by female suffrage. In particular, I examine whether the Republicans increased their support more in counties which were most affected by the reform. Table 1 reports baseline results for the effect of the female vote on the change in Republican and Democratic vote shares respectively. The first column shows baseline estimates without any controls. The second column adds controls fixed at the 1919 levels and differenced over the period from 19141919. The third column includes district fixed effects and controls fixed at 1919 levels. The fourth column includes all controls and district fixed effects.

Models 1 to 4 show consistently negative coefficients for the Democratic candidates and positive coefficients for the Republican candidates. However, the size of the estimates responds strongly to the addition of controls and district shocks. After adding all controls and district fixed effects, Model 4 estimates that the Republicans gained 0.276% of votes for every 1% increase in the proportion of women, while the Democrats lost 0.361%. Both effects are significant at the 5% level.

Table 1: The effect of female vote on change in electoral support for Republican and Democratic candidates 1920-1918.

Model	*(1)*	*(2)*	*(3)*	*(4)*
a)Rep. votes 1920-1918				
Female vote (%)	**1.072*** **	**1.074*** **	**0.149**	**0.276** **
	(0.155)	(0.224)	(0.127)	(0.13)
Model	*(5)*	*(6)*	*(7)*	*(8)*
b) Dem. votes 1920-1918				
Female vote (%)	**-0.423**	**-0.962*** **	**-0.236**	**-0.361** **
	(0.165)	(0.245)	(0.144)	(0.141)
District FEs	x	x	Yes	Yes
Controls (1919)	x	Yes	Yes	Yes
Controls (1919-1914)	x	Yes	x	Yes
Obs.	2240	2073	2013	1997

Notes: Controls for 1919 levels include: ln(population density); % Adult black; % Adult illiterate; % Roman Catholics; % Baptists; % Methodists; Value of all crops; Total manufacturing output; Differenced controls over 19191914 include all as above but % Total black population and % Adult male illiterate; Robust standard errors in parentheses; All models include a constant; *** significant at 1%; ** significant at 5%; * significant at 10%.

However, the specific context of the South might have altered womens preferences, particularly in the areas of the Black Belt. In order to test whether the effect of female suffrage is conditional on the level of threat to white supremacy, I split the sample by the th percentile of the black distribution. The thpercentile corresponds to 38.6% of blacks in a county and all counties with a higher proportion of blacks are located in the South. The results are reported in Table 2. Once

counties of the Black Belt are excluded from the sample, the estimates in the white sample become slightly larger. In the Black Belt counties, however, suffrage increased Democratic vote share. These estimates are not significant at conventional levels. The results are, therefore, compatible with the explanation that while women in all regions preferred the Republican candidates, white women in the Black Belt supported the Democratic candidates as much as white men, if not more so.

The main results are robust to the number of different specifications, as shown in the Appendix. First, splitting the sample with alternative cut-off points does not change the results in the white counties (Table 1 in the Appendix). As the cut-off point decreases, the black counties include more Northern counties with a substantial proportion of enfranchised blacks. As a result, the positive estimate for the Democratic candidates slowly disappears with decreasing cut-off points. Second, Table 2 in the Appendix shows that including counties with boundary changes does not change the main results. Third, Table 3 in the Appendix shows that the main results are robust to the exclusion of three states which approved female suffrage in the legislatively referred referendum in 1918, but where women voted for the first time to Congress in 1920.

Table 2: The effect of the female vote on change in electoral support for Republican and Democratic candidates 19201918, by th percentile Black.

Model	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*
a) Rep. votes 1920-1918								
Female vote (%)	**-0.737*** **	**-0.603**	**-0.329**	**-0.505**	**1.3*** **	**1.428*** **	**0.248***	**0.414*** **
	(0.271)	(0.408)	(0.307)	(0.324)	(0.174)	(0.242)	(0.132)	(0.146)
Model	*(9)*	*(10)*	*(11)*	*(12)*	*(13)*	*(14)*	*(15)*	*(16)*
b)Dem. votes 1920-1918								
Female vote (%)	**1.028*** **	**0.332**	**0.159**	**0.323**	**-0.308***	**-1.31*** **	**-0.417*** **	**-0.506*** **
	(0.359)	(0.438)	(0.299)	(0.325)	(0.184)	(0.265)	(0.143)	(0.158)
District FEs	x	x	Yes	Yes	x	x	Yes	Yes
Controls (1919)	x	Yes	Yes	Yes	x	Yes	Yes	Yes
Controls (1919-1914)	x	Yes	x	Yes	x	Yes	x	Yes
Obs.	224	214	215	214	2016	1859	1798	1783
Sample	Black	Black	Black	Black	White	White	White	White

Notes: See notes in Table 1. 'White' corresponds to counties with less than 39% of blacks (th percentile of black distribution), 'Black' refers to counties with more than 39% of blacks.

8 Robustness Checks

8.1 Placebo Tests

The difference in difference estimation strategy allows to control for county characteristics correlated with the proportion of women. However, the estimates may still be driven by pre-existing trends in the outcome variable. For example, the support for Republican candidates could have been growing faster in counties with a large proportion of women. Such a violation in the parallel trend assumption can be tested by regressing the change in partisan support between the 1918 and 1916 elections on female vote. Table 3 reports the estimates. Once all controls are included, none of the placebo regressions return large and significant estimates. This only occurs in models that do not control for district fixed effects. Republican support has, therefore, been trending differently prior to the reform, but any such trends were removed with the addition of district fixed effects.

Table 3: The effect of the female vote on change in electoral support for Republican and Democratic Candidates 1918-1916 (Placebo Regressions)

Model	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*
a) Rep. votes 1918-1916												
Female vote (%)	**-0.935*** **	**-0.361**	**-0.081**	**-0.141**	**0.283**	**-0.585**	**0.141**	**0.146**	**-0.922*** **	**-0.552***	**-0.071**	**-0.148**
	(0.163)	(0.266)	(0.131)	(0.165)	(0.331)	(0.502)	(0.33)	(0.363)	(0.182)	(0.292)	(0.159)	(0.195)
b) Dem. votes 1918-1916	*(13)*	*(14)*	*(15)*	*(16)*	*(17)*	*(18)*	*(19)*	*(20)*	*(21)*	*(22)*	*(23)*	*(24)*
Female vote (%)	**-0.051**	**0.324**	**-0.1**	**-0.098**	**-0.408**	**0.607**	**-0.152**	**-0.126**	**-0.1**	**0.519***	**-0.144**	**-0.123**
	(0.141)	(0.263)	(0.132)	(0.162)	(0.389)	(0.555)	(0.331)	(0.359)	(0.158)	(0.288)	(0.156)	(0.187)
District FEs	x	x	Yes	Yes	x	x	Yes	Yes	x	x	Yes	Yes
Controls (1919)	x	Yes	Yes	Yes	x	Yes	Yes	Yes	x	Yes	Yes	Yes
Controls (1919-1914)	x	Yes	x	Yes	x	Yes	x	Yes	x	Yes	x	Yes
Sample	All	All	All	All	Black	Black	Black	Black	White	White	White	White
Obs.	2174	2027	1968	1953	212	207	208	207	1962	1820	1760	1728

Notes: See notes for Table 1.

8.2 Restricting the Pool of Eligible Voters with Registration, Poll Taxes and Literacy Tests

At the turn of the century, most states restricted the pool of eligible voters by registration, poll taxes and literacy tests (Carlson 1976; Harris 1929; Keyssar 2000). These restrictions could drive the pro-Republican effect in white counties. If, for example, areas with more women also had the most stringent restrictions, the estimates from the difference in difference strategy might be biased and inconsistent, particularly if the restrictions affected mainly poorer and Democratic segments of the society. Moreover, any type of legal restrictions affected women more than men (Anderson 1996, p. 51; Corder and Wolbrecht 2006; Wilkerson-Freeman 2002). Unfortunately, the number of registered voters by county is not systematically available for the relevant period. I have, therefore, run a number of models in various sub-samples by the severity of restrictions. Table 3 splits the white sample by severity of registration restrictions, literacy tests and poll taxes and replicates the results. Since the estimates are comparable across the sub-samples, it is suggestive that the main result in white counties is not driven by variation in restrictions to eligible pool of voters.

8.3 Alternative Explanations Examined with Data from Chicago

The most severe concern of my identification strategy is that the national pro-Republican effect might be driven by increased mobilization of men in response to female suffrage. If men mobilized at higher levels in counties with more women, the partisan effect of suffrage would rely on the voting behavior of men rather than women. In this section, I therefore exploit data from Chicago, where the authorities kept polling records separated by sex in the early twentieth century. The first two columns in Table 5 show that there is indeed a positive correlation between the proportion of women and the registration levels of men in both the 1914 and 1916 elections. Men registered at higher levels in wards with more women. There is no effect on men's turnout levels. However, none of these regressions control for third factors. In the last two columns in Table 5, I therefore regress the change in men's registration and turnout levels between the 19141916 and 1911 elections on the proportion of women. While women voted in the 1914 and 1916 elections, they did not have the vote until 1911. This identification strategy, as in the main study, thus controls for fixed county characteristics correlated with the proportion of women. If men mobilized more in wards with more women, we should find a positive effect. Yet the models in Table 5 return much smaller

Table 4: Restricting the pool of eligible votes with registration, poll taxes and literacy tests in white counties

	No/Low reg.	**High reg.**	**Lit. test**	**No lit. test**	**Poll tax**	**No poll tax**
Model	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
a) Rep. votes 1920-1918						
Female vote (%)	**0.554****	**0.444****	**0.847****	**0.339****	**0.545***	**0.246***
	(0.254)	(0.196)	(0.427)	(0.155)	(0.296)	(0.148)
Model	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*
b) Dem. votes 1920-1918						
Female vote (%)	**-0.522****	**-0.609*****	**-0.758***	**-0.472*****	**-0.811****	**-0.208**
	(0.257)	(0.213)	(.428)	(0.171)	(0.323)	(0.154)
District FEs	Yes	Yes	Yes	Yes	Yes	Yes
Controls (1919)	Yes	Yes	Yes	Yes	Yes	Yes
Controls (1919-1914)	Yes	Yes	Yes	Yes	Yes	Yes
Sample	White	White	White	White	White	White
Obs.	658	1125	314	1469	550	1233

Notes: See notes for Table 1.

coefficients which are not even close to conventional levels of statistical significance. At least in Chicago, it seems that men did not turnout or register at higher levels in localities with a higher proportion of women.

Another concern of my identification strategy is that the pro-Republican effect of female suffrage might be a result of higher mobilization of Republican women. Indeed, scholars argue that Republican women were better organized (Bagby 1962, p. 152; Freeman 2002, p. 24). I again exploit the data from Chicago where authorities kept polling records separated by sex. Indeed, women were more supportive of Republican candidates in wards where they registered and voted at higher rates (see the first two panels in Table 6). However, none of these models controls for third factors. Socio-economic characteristics at the ward level may both increase women's support for Republican candidates and their electoral participation. I therefore regress the change in the Republican vote share among women between the 1920 and 1916 elections on the change in registration and turnout rates among women between 1920 and 1916. Once fixed ward characteristics hold constant, the positive effect disappears (see last panel in Table 6). At

Table 5: The effect of the proportion of women in Chicago on male registration and turnout

Dep. variable:	*Male registr. 1914*	*Male registr. 1916*	*Male registr. 1914-1911*	*Male registr. 1916-1911*
Female (%)	**1.609*** **	**1.72*** **	**0.029**	**0.124**
	(0.446)	(0.557)	(0.329)	(0.288)
Obs.	35	35	34	34
Dep. variable:	*Male turnout 1914*	*Male turnout 1916*	*Male turnout 1914-1911*	*Male turnout 1916-1911*
Female (%)	**0.235**	**-0.178**	**0.027**	**-0.305**
	(0.308)	(0.398)	(0.244)	(0.392)
Obs.	35	35	34	34

Notes: Data sourced from Goldstein (1973) and US Census Bureau. Data for registration rates utilizes 1911 municipal elections, 1914 school elections and 1916 presidential elections. Data for voter turnout utilizes 1911 municipal elections, 1914 and 1916 general elections; All regressions include a constant; Voter turnout is defined as a proportion of voters among registered; Robust standard errors in parentheses; *** significant at 1%; ** significant at 5%; * significant at 10%.

least in Chicago, areas where women mobilized at higher levels in the 1920 rather than the 1916 election were not areas where the Republican Party made larger gains.

Table 6: The effect of women's registration and turnout on women's vote choice in Chicago

Dep. variable:	*Republican vote 1916 (%)*	
Registration 1916 (%)	**0.709*** **	
	(0.126)	
Turnout 1916 (%)		**0.633**
		(0.424)
Obs.	35	35
Dep. variable:	*Republican vote 1920 (%)*	
Registration 1920 (%)	**0.674*** **	
	(0.165)	
Turnout 1920 (%)		**0.666*** **
		(0.234)
Obs.	35	35
Dep. variable:	*Republican vote 1920-1916 (%)*	
Registration 1920-1916 (%)	**0.114**	
	(0.251)	
Turnout 1920-1916 (%)		**-0.058**
		(0.155)
Obs.	35	35

Notes: Data are sourced from Goldstein (1973). Data for fall registration rates 1916 and 1920 and presidential electoral returns in 1916 and 1920; All regressions include a constant; Voter turnout is defined as a proportion of voters among registered; Robust standard errors in parentheses; *** significant at 1%; ** significant at 5%; * significant at 10%.

9 Final Remarks

In this paper I show that the newly enfranchised women supported Republican candidates more often than men and as such contributed to the Republican landslide in the 1920 election. In the Southern Black Belt, newly enfranchised white women voted for Democratic candidates as much as white men. This paper thus provides evidence for long-held narratives that associated women with the Republican Party and white Southern women with white supremacy in the region. Contrary to existing research, women's partisan preferences were different from those of men and had the power to affect the constellation of parties in Congress. While a number of earlier studies addressed the question of how women voted in the early twentieth century, the results have been mixed. Moreover, all studies so far have examined presidential elections in either a single town, state or a group of selected states, excluding most Southern states. It follows that this is the first study that systematically examines women's voting behavior in all newly enfranchised states. Future work may try to examine the variation in women's Republican tendencies across states and in additional elections. It may also attempt to further examine whether the developmental or the economic thesis can better explain women's Republican tendencies.

References

[1] Alpern, S. and D. Baum. 1985. Female Ballots: The Impact of the Nineteenth Amendment. The Journal of Interdisciplinary History, 16(1), pp. 43-67.

[2] Andersen, K. 1996. After Suffrage. Women in Partisan and electoral Politics before the New Deal. Chicago: The University of Chicago Press.

[3] Bagly, W. M. 1962. The Road to Normalcy: The Presidential Campaign and Election of 1920. Baltimore: The John Hopkins Press.

[4] Banaszak, L. A. 1996. Why Movements Succeed or Fail. Opportunity, Culture, and the Struggle for Woman Suffrage. Princeton, NJ. Princeton University Press.

[5] Berlinski, S. and T. Dewan. 2011. The political consequences of franchise extension: Evidence from the second reform act. Quarterly Journal of Political Science, 6(34), 329-376.

[6] Besley, T., T. Persson and D. M. Sturm. 2010. Political Competition, Policy and Growth: Theory and Evidence from the US. Review of Economic Studies, 77, 1329-1352.

[7] Braun, S., and M. Kvasnicka. 2013. Men, women, and the ballot: Gender imbalances and suffrage extensions in the United States. Explorations in Economic History, 50(3), 405-426.

[8] Box-Steffensmeier, J. M., S. De Boef, and T. M. Lin. 2004. The Dynamics of the Partisan Gender Gap. American Political Science Review, 98, 515-528.

[9] Carlson, R.J. 1976. The Effects of Voter Registration Systems on Presidential Election Turnout in Non-Southern States 1912-1924. PhD Dissertation. University of Illinois.

[10] Carruthers, C. K., Wanamaker, M. H. 2015. Municipal Housekeeping: The Impact of Women's Suffrage on Public Education (No. w20864). National Bureau of Economic Research.

[11] Clark, C. and J. Clark. 2008. Women at the Polls: The Gender Gap, Cultural Politics, and Contested Constituencies in the United States. Cambridge Scholars Publishing.

[12] Corder, J. K. and C. Wolbrecht. 2011. The Impact of Womens Suffrage Female Voters and the Election of 1920. Annual Meetin of American Political Science Association, September 1-4, 2011.

[13] Corder, J. K., and Wolbrecht, C. 2006. Political Context and the Turnout of New Women Voters after Suffrage. Journal of Politics, 68(1), 34-49.

[14] Duverger, M. 1955. The Political Role of Women. Paris: UNESCO.

[15] Dye, N, S. 1991. Introduction. In. Frankel, N. and N. S. Dye (Eds). Gender, Class, Race, and Reform in the Progressive Era. The University Press of Kentucky.

[16] Edlund, L. and R. Pande. 2002. Why have women become left-wing? The political gender gap and the decline in marriage. The Quarterly Journal of Economics, 117(3), 917-961.

[17] Freeman, 2002. J. A Room at a Time. How Women Entered Party Politics. Rowman and Littlefield.

[18] , R., and D. Lueck. 2002. The gains from self-ownership and the expansion of women's rights. American Economic Review, 1079-1092.

[19] Goldstein, J. H. 1973. The Effects of the Adoption of Woman Suffrage. Sex Differences in voting Behaviour Illinois, 1914-1921. New York: Praeger Publishers.

[20] Gould, L. L. 2001. America in the Progressive Era 1890-1914. Harlow: Pearson Education Limited.

[21] Gustafson, M. S. 2001. Women and the Republican Party, 1854-1924. University of Illinois Press.

[22] Haines, Michael R., and Inter-university Consortium for Political and Social Research. Historical, Demographic, Economic, and Social Data: The United States, 1790-2002. ICPSR02896-v3. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2010-05-21. http://doi.org/10.3886/ICPSR02896.v3

[23] Harris, J. P. 1929. Registration of Voters in the United States (No. 23). Brookings Institution.

[24] Hicks, J.D. 1960. Republican Ascendancy 1921-1933. London: Hamish Hamilton.

[25] Hobbs, F., and N. Stoops. 2000. US Census Bureau. Census 2000 Special Reports, Series CENSR-4, Demographic Trends in the 20th Century. https://dl.dropboxusercontent.com/u/47741673/electricity.pdf

[26] Inglehart, R. and P. Norris. 2000. The Developmental Theory of the Gender Gap: Womens and Mens Voting Behavior in Global Perspective. International Political Science Review 21(4), 441463.

[27] Inter-university Consortium for Political and Social Research. United States Historical Election Returns, 1824-1968 [Computer File]. ICPSR00001-v3. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 1999-04-26. http://doi.org/10.3886/ICPSR00001.v3

[28] Iversen, T. and F. Rosenbluth. 2006. The Political Economy of Gender: Explaining Cross-National Variation in the Gender Division of Labor and the Gender Voting Gap. American Journal of Political Science, 50(1), 1-19.

[29] Keyssar, A. 2000. The Right to Vote. Basic Books.

[30] Kleppner, P. 1982. Continuity and Change in Electoral Politics 1893-1928. New York, NY: Greenwood Press.

[31] Kroth, V., V. Larcinese and J. Wehner. 2015. A Better Life For All? Democratization and Electrification in Post-Apartheid South Africa. Available here: https://dl.dropboxusercontent.com/u/47741673/electricity.pdf

[32] Larcinese, V. 2014. Enfranchisement and Representation: Evidence from the Introduction of Quasi-Universal Suffrage in Italy. Working Paper n. 512. Available here: http://www.igier.unibocconi.it/files/512.pdf

[33] Lemons, J. S. 1973. The Woman Citizen Social Feminism in the 1920's. Urbana: University of Illinois Press.

[34] Lindert, P. H. 1994. The Rise in Social Spending, 1880-1930, Explorations in Economic History, XXXI, 1-37.

[35] Link, A. S. 1954. Woodrow Wilson and the Progressive Era 1910-1917. London: Hamish Hamilton.

[36] Lott, J. R. and L. W. Kenny. 1999. How Dramatically Did Women's Suffrage Change the Size and Scope of Government? Journal of Political Economy 107(6 Part 1), 1163-1198.

[37] Lunardi, C. A. and T. J. Knock. 1980-1981. Woodrow Wilson and Woman Suffrage: A New Look. Political Science Quarterly, 95(4), 655-671.

[38] Manza, J. and C. Brooks. 1998. The Gender Gap in U.S. Presidential Elections: When? Why? Implications? American Journal of Sociology, 103(5). 1235-66.

[39] Miller, G. 2008. Womens Suffrage, Political Responsiveness, and Child Survival in American History. The Quarterly Journal of Economics, 123(3), 1287-1327.

[40] Norris, P. 1988. The Gender Gap: A Cross-National Trend? In C. M. Mueller (Ed). 1988. The Politics of the Gender Gap. The Social Construction of Political Influence. Sage .

[41] Ogburn, W. F. and I Goltra. 1919. How Women Vote. Political Science Quarterly, 34(3), 413-433.

[42] Przeworski, A. 2009. Conquered or granted? A history of suffrage extensions. British Journal of Political Science, 39(02), 291-321.

[43] Randall, V. 1987. Women and Politics: An International Perspective. Chicago: Chicago University Press.

[44] Saldin, R. P. 2010. War, the American State, and Politics since 1898. Cambridge University Press.

[45] Schuyler, L. G. 2006. The Weight of Their Votes. Southern Women and political Leverage in the 1920s. The University of North Carolina Press.

[46] Sims, A. 1997. The Power of Femininity in the New South. Womens Organizations and Politics in North Carolina, 1880-1930. University of South Carolina Press.

[47] Skocpol, T. 1992. Protecting Soldiers and Mothers: The Political Origins of Social Policy in the United States. Cambridge: Harvard University Press.

[48] Sundquist, J. L. 1973. Dynamics of the Party System. Alignment and Realignment of political Parties in the United States. Washington, D.C.: The Brookings Institution.

[49] Tingsten, H. 1937. Political Behaviour; Studies in Election Statistics. London: P. S. King.

[50] Tyrrell, I. R. 1991. Woman's world/Woman's Empire: the Woman's Christian Temperance Union in International Perspective, 1880-1930. Chapel Hill: University of North Carolina Press

[51] U.S. Census Bureau. Census of Religious Bodies. 1926. Vol. 1, Summary and Detailed Tables. Available at http://www.census.gov/prod/www/decennial.html

[52] U.S. Census Bureau, 1915. Thirteen Census of the United States Taken in the Year 1910. Volume II. Population 1910. Washington: Government Printing Office.

[53] Vernby, K. 2013. Inclusion and public policy: evidence from Swedens introduction of noncitizen suffrage. American Journal of Political Science, 57(1), 15-29.

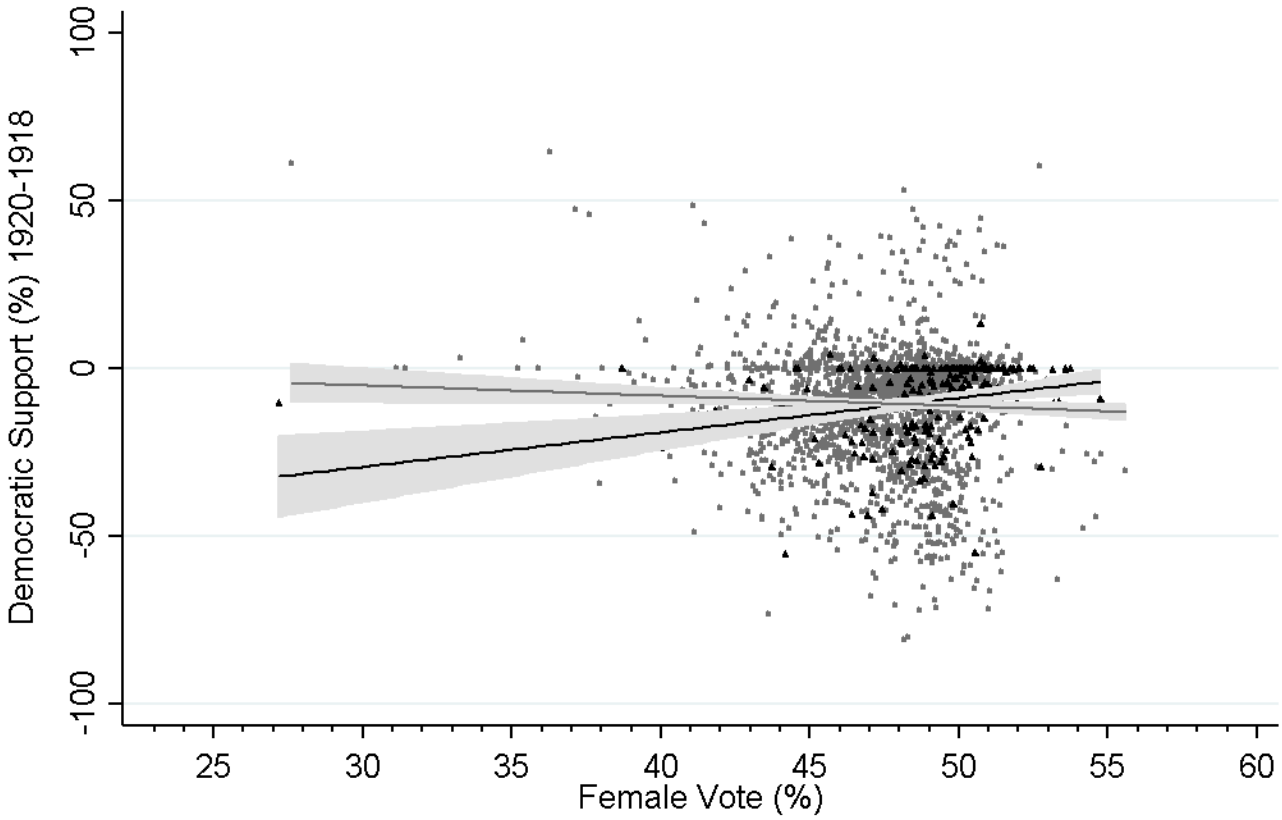
[54] Wilkerson-Freeman, S. 2002. The Second Battle for Woman Suffrage: Alabama White Women, the Poll Tax and V. O. Keys Master Narrative of Southern Politics. The Journal of Southern History, 68(2), 333-374.

[55] Willey, M. M., and S. A. Rice. 1924. A Sex Cleavage in the Presidential Election of 1920. Journal of the American Statistical Association, 19, 519-520.

[56] Wooldridge, J. M. (2010). Econometric Analysis of Cross-Section and Panel Data. MIT press.

A Appendix

Appendix Figure 1: Plotting change in Democratic support (19201918) on the female vote by 90th percentile black.



Notes: The grey dots and fitted line correspond to white counties. The black dots and fitted line represents trends in the Black Belt.

Appendix Table 1: Alternative cut-off points

Cut-off point	**95th percentile**		**80th percentile**		**70th percentile**		**60th percentile**	
Model	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*
a) Rep. votes 1920-1918								
Female vote (%)	**-0.305**	**0.298****	**-0.305**	**0.459*****	**0.122**	**0.395*****	**0.179**	**0.411****
	(0.417)	(0.141)	(0.292)	(0.145)	(0.26)	(0.149)	(0.236)	(0.159)
Model	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*
b) Dem. votes 1920-1918								
Female vote (%)	**0.282**	**-0.407*****	**0.402**	**-0.568*****	**-0.145**	**-0.542*****	**-0.171**	**-0.676*****
	(0.419)	(0.153)	(0.313)	(0.157)	(0.274)	(0.166)	(0.245)	(0.195)
District FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls (1919)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls (1919-1914)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sample	Black	White	Black	White	Black	White	Black	White
Obs.	109	1888	428	1569	638	1359	855	1142

Notes: Controls for 1919 levels include: ln (population density); % Adult black; % Adult illiterate; % Roman Catholics; % Baptists; % Methodists; Value of all crops; Total manufacturing output; Differenced controls over 1919-1914 include all as above but % Total black population and % Adult male illiterate; Robust standard errors in parentheses; All models include a constant; *** significant at 1%; ** significant at 5%; * significant at 10%.

Appendix Table 2: Including counties with boundary changes

Model	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*
a) Rep. votes 1920-1918												
Female vote (%)	**1.063*** **	**1.114*** **	**0.146**	**0.272** **	**-0.742*** **	**-0.584**	**-0.297**	**-0.476**	**1.294*** **	**1.478*** **	**0.238***	**0.404*** **
	(0.153)	(0.222)	(0.123)	(0.127)	(0.27)	(0.395)	(0.3)	(0.32)	(0.171)	(0.24)	(0.131)	(0.144)
Model	*(13)*	*(14)*	*(15)*	*(16)*	*(17)*	*(18)*	*(19)*	*(20)*	*(21)*	*(22)*	*(23)*	*(24)*
b) Dem. votes 1920-1918												
Female vote (%)	**-0.158**	**-1.004*** **	**-0.278** **	**-0.364*** **	**1.034*** **	**0.312**	**0.142**	**0.309**	**-0.33***	**-1.365**	**-0.398*** **	**-0.502*** **
	(0.162)	(0.242)	(0.134)	(0.137)	(0.357)	(0.426)	(0.292)	(0.32)	(0.18)	(0.261)	(0.142)	(0.155)
District FEs	x	x	Yes	Yes	x	x	Yes	Yes	x	x	Yes	Yes
Controls (1919)	x	Yes	Yes	Yes	x	Yes	Yes	Yes	x	Yes	Yes	Yes
Controls (1919-1914)	x	Yes	x	Yes	x	Yes	x	Yes	x	Yes	x	Yes
Sample	All	All	All	All	Black	Black	Black	Black	White	White	White	White
Obs.	2275	2102	2039	2023	228	218	219	218	2047	1884	1820	1805

Notes: Controls for 1919 levels include: ln(population density); % Adult black; % Adult illiterate; % Roman Catholics; % Baptists; % Methodists; Value of all crops; Total manufacturing output; Differenced controls over 1919-1914 include all as above but % Total black population and % Adult male illiterate; Robust standard errors in parentheses; All models include a constant; *** significant at 1%; ** significant at 5%; * significant at 10%.

Appendix Table 3: Excluding three states which extended suffrage in 1918

Model	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*
a) Rep. votes 1920-1918												
Female vote (%)	**1.258*** **	**1.3*** **	**0.152**	**0.255*** **	**-0.737** **	**-0.603**	**-0.329**	**-0.505**	**1.544*** **	**1.736*** **	**0.259*** **	**0.396** **
	(0.173)	(0.236)	(0.134)	(0.136)	(0.271)	(0.408)	(0.307)	(0.324)	(0.196)	(0.255)	(0.141)	(0.154)
Model	*(13)*	*(14)*	*(15)*	*(16)*	*(17)*	*(18)*	*(19)*	*(20)*	*(21)*	*(22)*	*(23)*	*(24)*
b) Dem. votes 1920-1918												
Female vote (%)	**-0.271**	**-1.13*** **	**-0.303** **	**-0.359** **	**1.028*** **	**0.332**	**0.159**	**0.323**	**-0.474** **	**-1.544*** **	**-0.445*** **	**-0.514*** **
	(0.18)	(0.262)	(0.144)	(0.147)	(0.359)	(0.438)	(0.299)	(0.325)	(0.202)	(0.284)	(0.152)	(0.167)
District FEs	x	x	Yes	Yes	x	x	Yes	Yes	x	x	Yes	Yes
Controls (1919)	x	Yes	Yes	Yes	x	Yes	Yes	Yes	x	Yes	Yes	Yes
Controls (1919-1914)	x	Yes	x	Yes	x	Yes	x	Yes	x	Yes	x	Yes
Sample	All	All	All	All	Black	Black	Black	Black	White	White	White	White
Obs.	2022	1884	1819	1808	224	214	215	214	1798	1670	1604	1594

Notes: Controls for 1919 levels include: ln(population density); % Adult black; % Adult illiterate; % Roman Catholics; % Baptists; % Methodists; Value of all crops; Total manufacturing output; Differenced controls over 1919-1914 include all as above but % Total black population and % Adult male illiterate; Robust standard errors in parentheses; All models include a constant; *** significant at 1%; ** significant at 5%; * significant at 10%