How Dramatically Did Women's Suffrage Change the Size and Scope of Government?

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It is not really surprising that this welfare state should breed a politics not of "justice" or "fairness" but of "compassion," which contemporary liberalism has elevated into the most important civic virtue. Women tend to be more sentimental, more risk-averse and less competitive than men—yes, it's Mars vs. Venus—and therefore are less inclined to be appreciative of free-market economics, in which there are losers as well as winners. College-educated women—the kind who attend Democratic conventions—are also more "permissive" and less "judgmental" on such issues as homosexuality, capital punishment, even pornography.

> Irving Kristol, "The Feminization of the Democrats,"
> The Wall Street Journal (September 9, 1996): p. A16

Citing marriage as "a very important financial divider," the American Enterprise Institute's Doug Besharov suggests more married women did not vote for Dole because of a widespread sense of societal insecurity: "It is not that they distrust their husband, but they have seen divorce all around them and know they could be next." The Polling Company's Kellyanne Fitzpatrick is categorical: "Women see government as their insurance." (Perhaps significantly, of the 24 million individuals working in government and in semi-governmental non-profit jobs, 14 million—58 percent—are women.)

> The Richmond Times Dispatch, December 5, 1996

For decades we have known that women vote differently than men. In the presidential elections from 1980 to 1996 the gender gap—the difference between the way men voted and the way women did—was: 14 points in 1980, 16 in 1984, 15 in 1988, 5 in 1992, and 17 in 1996 (Langer, November 8, 1996). According to Voter News Service election day exit polls, if men alone could have voted in the 1996 presidential election, Robert Dole would have been elected president by carrying 31 states. We know that the

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differences between men and women extend to even such things as their sources of news, with women relying predominantly on television and men on newspapers and radio (Nando News July 30, 1996).

Disciplines such as sociobiology emphasize why the different sexes develop distinct behavioral patterns consistent with maximizing their probability of successfully passing on their genes (Trivers, 1985, p. 20).[2] While sociobiology discusses this theory across many species, a large psychology literature focuses more specifically on humans. This research finds that men are more likely to take career risks and more single-minded about acquiring resources,[3] while "women are more inclined to be nurturing and orientated towards others with greater attachment towards their children and less willing to trade material resources for time spent with their children or in other activities" (Browne, 1995, p. 980 and see also Epstein, 1992, pp. 986-995).

Many feminists argue that this different perspective arises, at least in part, from "their sexuality," and provides a reason for including women in the political process (Gilligan, 1982, p. 129).[4] Men can not be expected to see things the same way that women do. "[T]he disappointment of suffrage is recorded in the . . . tendency of [some women] in voting only to second their husbands' opinions" (Gilligan, 1982, p. 129). To these women, it would be shocking to think that suffrage did not alter the outcomes of the political process.[5,6]

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[2] For example, males' ability to reproduce often depends upon them being willing to take more risky strategies in order to acquire resources or otherwise impress females. For males, the payoff for being the winner is high, as he can then sire many children. While all the females in a herd of animals will have an opportunity to mate, for many species it is frequently only a few percent of the males who sire offspring. To the extent that this strategy is imprinted at the genetic level, it might not be too surprising that males and females have innately different attitudes towards risk.

[3] Social biologists have long predicted that the sex making the smallest parental investment would gain from taking relatively riskier strategies.

[4] See also Chodorow (1978) for related discussions on this topic.

[5] Many women who fought for suffrage felt the same way. For example, see Lewis (1987, pp. 141-158).

Yet, why these differences would affect the views of what role government should play is not completely clear. The first quote by Kristol raises some interesting possibilities. Maybe, as the sociobiologists and psychologist argue, women are more risk-averse than men, but why do women choose to use the government rather than other mechanisms to provide insurance? Many types of government programs are primarily wealth transfer programs rather than insurance programs in the normal sense.

Marriage also provides another economic basis for men and women preferring different policies. It typically encourages men to accumulate market capital and leads women to acquire household skills and shoulder most of the child rearing responsibilities. While the gains from marital specialization and from efficient statistical discrimination in the labor market can be internalized through marriage, divorced women are unable to recoup the full compensation for their family-specific investments, and single working women lose from labor market discrimination (see Hunt and Rubin, 1980). Hence, single women as well as women who anticipate that they may become single may prefer a more progressive tax system and more wealth transfers to low-income people as alternative to a share of a husband's uncertain future income.

Others have noted that at least in some countries government jobs are filled primarily by women (e.g., see Rosen, 1996, discussing Sweden). Today women make up 54.8 percent of the U.S. Federal government white collar workers. Thus, women may feel that they have more at stake the government remaining the same or growing (Stark, 1996, p. 78). Possibly, it is even more specific. Men and women may support those government activities where they are more heavily employed (e.g., defense and education, respectively).

One long standing puzzle facing public choice has been why government growth started when it did (Tullock, 1995). In the United States, many have noted the general problem: "There was tremendous expansion of government growth in the 1930's, to be sure, but that expansion is better seen as a continuation of the

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[6] Strauss (1992, p. 1012) discusses the tensions feminists face in arguing that there are "biological or otherwise deep-seated differences between men and women." If they acknowledge these differences, to what extent might these arguments then be used against moves to equality in other areas?

expansion of the scope of government in the 1920's" (Holcombe, 1997, p. 26). The literature is littered with theories from the unbalanced growth hypothesis (Baumol, 1967), ratcheting effects (Peacock and Wiseman, 1961), revenue maximizing bureaucrats (Niskanen, 1971), reductions in the costs of collecting taxes (Kau and Rubin, 1981), entrepreneurial politicians (Becker, 1985 and Lott, 1990 and 1997), the development of interest groups (Holcombe, 1997), and the notion that government is a superior good (Wagner's Law).[7] All these theories face one significant problem: government has not always been growing. Previous general discussions involving the extensions of the voting franchise (e.g., Meltzer and Richard, 1978, 1981, and 1983) also have problems explaining the timing of growth. Indeed in the United States, with the exceptions of wars, real per capita Federal Government expenditures remained remarkably constant until the 1920's. In fact, as has been widely noted by public choice scholars, World War I was the first war after which per capita government expenditures did not return back to their pre-war levels and by the end of the 1920's the growth trend that we are so familiar with today had begun.[8] To explain this timing, some point to the effect that the seemingly successful economy wide regulations during the war had on people's beliefs about the role of government (Higgs, 1987).

We propose that giving women the right to vote changed the size of government. We examine several indcators of the size and scope of government, from state government expenditures and revenues to voting index scores for Federal House and Senate members from 1870 to 1940.

Twenty-nine states gave women the right to vote before the 19th amendment to the Constitution was approved in 1920, with seven of the remaining nineteen approving the amendment and twelve having women's suffrage imposed on them. Women obtained the right to vote in four states even prior to the turn of the century, in eight states between 1910 and 1914, and in 17 states in

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[7] For an extensive survey of Wagner's Law see Bennett and Johnson (1980).

[8] Another argument claims that larger government has resulted from increasing income equality and education (Peltzman, 1980). See Lott (1990) for a response to the claims regarding education.

1917-19. By 1940, the end of our sample, women had been voting in 12 states for at least 26 years and in 4 states for at least 44 years.

Although a number of women took advantage of their new right to vote immediately, it took several decades for turnout to fully adjust. We find the growth in female voter turnout to be positive associated with teh expansion of government. Since suffrage was granted to women in different states over a long period of time extending from 1869 to 1920, it is unlikely that World War I is the key. These data also allow us to address causality questions in unusual ways. The central issue is: did giving women the right to vote cause government to grow or was there something else which both contributed to women getting the right to vote and also increased government growth? We find very similar effects of women's suffrage in states that voted for suffrage and states that were forced to give women the right to vote, which suggests the second effect is small.

The remaining empirical analysis utilizes more recent polling data to help explain why women and men vote so differently. We find that there is a greater gender gap for single mothers, and that women—particularly single women—are more likely to be liberal and a Democrat and to have voted for the Democrat presidential candidate.

II. Examining the Political Differences between Women and Men

"Although many media accounts still suggest that the gender gap is greatest on 'women's issues,' in fact the gulf today tends to be on issues involving the existence and expansion of the social-welfare state."

Steven Stark, "Gap Politics," *Atlantic Monthly,* July 1996, p. 72.

Why would men and women have differing political interests? Starting with the simplest case as a comparison: if there were no divorces in society and women and men married early in life, the interests of men and women would appear to be closely linked

together.[9] However, as divorce or desertion rates rise, more women will be saddled with the costs of raising the children.[10] Divorced women may seek legal guarantees to some portion of this expected higher income through alimony, but, besides difficulties in tracking down the man to ensure payment, relatively risk averse women may in addition prefer some guaranteed minimum income over the risky return from the particular man that they were originally married to. While the evidence indicates that welfare leads some fathers to desert their families, some women may also view welfare as a means of allowing them to remain at home and raise their children when their husbands leave them.

The relative investments women and men make in household production versus careers also plays a role. Take the limiting case where women make investments in the family and men investments in their careers. As the divorce rate rises, women's expected ability to internalize these men's early investments in their careers declines. Some women may acquire skills that will be useful in the marketplace outside the family, and they will make fewer household investments. Even ignoring the lost family-specific sunk investments and the costliness of the marriage market, such things as the growing age differential between men and women in later marriages make remarriage appear to be somewhat less satisfactory for women then for men, possibly in part because age differentially affects their abilities to have children. (Presumably, on average this fact is taken into account in the initial marriage market competition, and women are compensated at that point.) Again women face two options, either relying on some share of the husband's relatively risky

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[9] Of course, this linkage might not be perfect because views might not only be a function of current costs and benefits but also the biologically hardwired attitudes, for example, towards risk which evolved over the eons.

[10] This might arise because if the old biological forces, discussed in the introduction, assert themselves with some men leaving the relationship after the women have born children. If men are trying to maximize the rate at which they pass on their genes, they will try to find younger still fertile women as their spouses age. Indeed while men are older than women when they marry, the age gap is larger for those entering into their second and third marriages than it is for those in their first marriage. For first marriages the age gap is 3 years, for second marriages it is 5, and for third marriages 8. (See Browne, 1995.)

future earnings (assuming that those earnings can be attached) or some guaranteed minimum income.

Our earlier discussion on the differences between men and women appear to suggest two other reasons why women, on average, would favor a more progressive tax system and more wealth transfers to lower income people.[11] First, is the claim "that men are more single-minded about acquiring resources than women."[12] While many women will be married to these men and while many will gain through inheritance,[13] it would appear that men, simply because some of them will be single when they earn and spend this income, might be discriminated against by a progressive income tax. Second, if women are more willing to "trade material resources for time spent with their children,"[14] women by consuming untaxed activities are going to avoid some of the burden of the tax.

Differences in women's and men's views toward wealth transfers, even if true on average, are unlikely to be monolithic and are likely to vary over time as the divorce rate and personal characteristics such as marriage and children change. The conflicts within the ranks of women or men seem obvious: women who remain married to successful men would oppose such transfers, but unsuccessful men and their spouses and divorced and single women would support them. Indeed there is already some cross-sectional empirical evidence that supports this conclusion. Hunt and Rubin (1980) find that it is the number of single women—not the female labor force participation rate as one might suspect if employment discrimination were the real concern—that determined what states were most likely to pass the Equal Rights Amendment during the 1970s.[15]

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[11] International polling data find that women tend to be relatively risk averse "almost" everywhere (see Stark, 1996, p. 75).

[12] Browne, 1995, p. 980.

[13] Because of inheritance, this effect may be partially offset by the longer life expectancy of women.

[14] Browne, 1995, p. 980.

[15] If men and women do indeed benefit differentially from government policy, their political positions should depend not only upon their own sex but also that of their children. Women with male children and men with female children will find it more in their interests at the margin to support government policies that favor the other sex. Similarly parents (particularly

III. Changes in Voting Laws

A great expansion of voting rights has occurred over the last century and a half, with a corresponding shift in political power. It is important to account for these and other changes in voter turnout so that we do not falsely attribute changes in voting participation rates to female suffrage when other changes may have been occurring around the same time. This information will also allow us to examine whether it is an increase in the franchise per se that is producing higher government expenditures or whether extending the franchise to women was in some way unique. Table 1 describes how the various legal restrictions on voting changed over time. Our voter turnout, state government spending, and federal legislative voting data were collected beginning in 1870 or when a state entered the union, whichever is later, so the first column lists each state's year of entry. The one exception is Arizona, whose state expenditure and revenue data are available for 1911.

Adopting secret ballots prevented many illiterate citizens from voting; reading skills were required when voting no longer involved simply taking a colored card that represented one's party preference into the voting booth. Secret ballots also greatly hampered vote buying, since it was much more difficult for those buying votes to monitor which candidates a person voted for. The first column illustrates how the secret ballot swept through the country, with 40 states adopting it between 1888 and 1896 (See Anderson and Tollison (1990) and Heckelman (1995)).

The timing of women's suffrage is shown in column 2. Women obtained the right to vote in four states even prior to the turn of the century, in eight states between 1910 and 1914, and in 17 states between 1917 and 1919.

As shown in column 3, the poll tax was used by 16 states at some point during our sample period. During this time, the tax was imposed in 10 states, eliminated and reimposed in 2 states, and eliminated in 8 states. By 1940, for 5 states at least 20 years had elapsed since the poll tax had been repealed.

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single parents) with children of the same sex as themselves will obtain an even greater return to political activity. Altruism towards siblings could also complicate this picture. In any case, using a person's own sex is an imperfect measure of one's political preferences.

The last column depicts states' reliance on the literacy test. Nineteen states used this restriction at some time during the period.

IV. Effect of Suffrage on Spending and Taxation

Using state government expenditure and revenue data for all 48 contiguous states from 1870 to 1940, it is possible to study the impact of women's suffrage on the size of government. The expenditure and taxation data prior to 1915 were provided by John Wallis. Subsequent data were obtained from various issues of *Financial Statistics of States*. Since the series from both sources needed to be comparable, analysis of taxation and expenditure was restricted to series satisfying that criterion: total expenditure (TOTAL EXPENDITURE), total revenue (TOTAL REVENUE), property tax revenue (PROPERTY TAX), current and capital expenditures on elementary and secondary schools and libraries (EDUCATION), current expenditures on charities, hospitals, and corrections (SOCIAL SERVICES), and current and capital expenditures on highways (HIGHWAY) (see Table 2).[16] Given that most serious crime is committed against males and that women may be more likely to value spending on charities, aggregating these different types of spending together under the label of social services is less than ideal. These variables are in real (1967) dollars per capita. These data were checked thoroughly, and suspicious data from the earlier period were deleted.[17] Spending or taxation had to be at least twice or less than half that of surrounding

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[16] Although we were unable to replicate exactly the data on TOTAL EXPENDITURE from Wallis using *Financial Statistics of States,* the figures for the two series seemed close enough to permit analysis.

[17] The deleted data included: TOTAL EXPENDITURE: DE 1888, IN 1889, KS 1877, KY 1882-83, MD 1903, MA 1939, MS 1939, ND 1939, NH 1939, NJ 1939, SC 1877 - EDUCATION: CA 1908; IN 1875-77, 1879, 1884, 1901; KY 1897; MD 1871; SC 1877 - SOCIAL SERVICES: FL 1871-72; KY 1882-83; OH 1912; SC 1877 - TRANSPORTATION: none - TOTAL REVENUE - DE 1887, 1891; ID 1912; IN 1889; IA 1905; KY 1873; NV 1880; NY 1874; PA 1877; SC 1877; TN 1875; TX 1885; WA 1896; WV 1895; WY 1893, 1899 - PROPERTY TAX: AL 1911, AR 1908; TN 1879; UT 1905; WV 1895; WY 1893. We also tried deleting all the spending and revenue data from Washington for 1907-14, but this did not alter our basic findings.

years to warrant deletion, though this does not affect the results we report.[18]
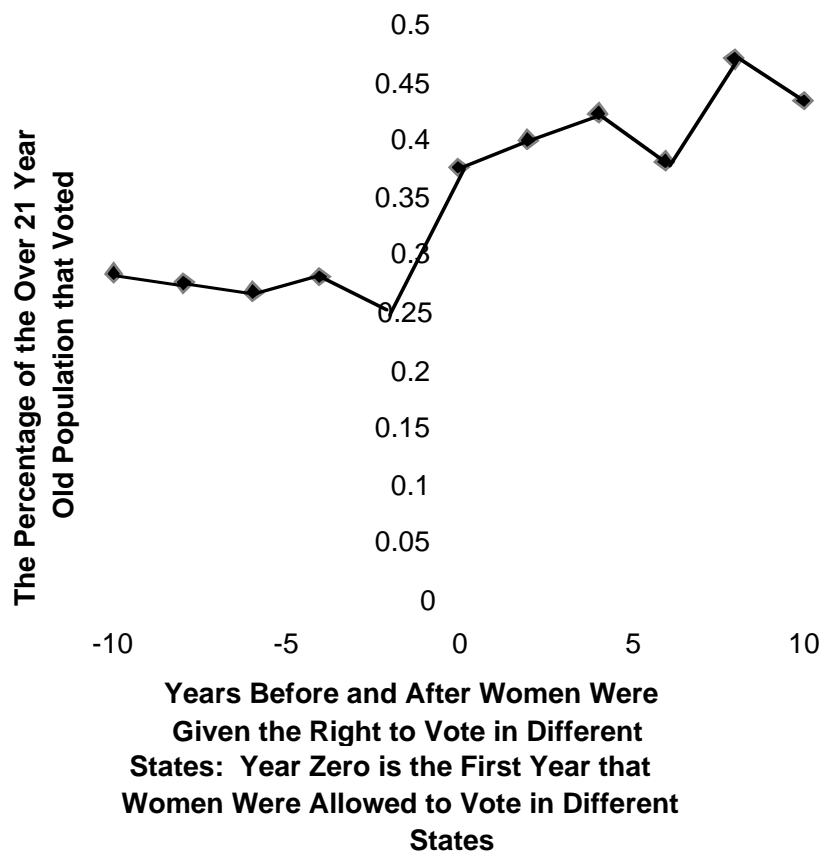
Figure 1 provides a simple graphic illustration on the relationship between women's suffrage and the percent of the total population over age 21 that voted. All state dates are normalized so that year zero on the horizontal axis is the first year when women in a state were allowed to vote. Values to the right along the bottom axis shows the number of years following suffrage, and values to the left indicate the number of years prior to the adoption of the law. While Figure 1 does not control for any other factors that might influence the returns to voting, the graph is very suggestive. On average voting participation rates were very stable in the years preceding suffrage. Yet, once suffrage was granted, participation rates immediately rose from 25 to 37 percent, with a continued slower rise to 43 percent occurring over the subsequent decade. To the extent that voting by women reduces the return to men voting, the simple increase in the percent of the population voting underestimates the number of women who vote. The appendix provides a more systematic investigation of the factors affecting participation rates during these years.

Figure 2 graphs the simple relationship between the granting of women's suffrage and per capita state government expenditures and revenue. The bottom axis is the same as that used in Figure 1, and it sets year zero as the fiscal year during which women first voted in any state.[19]

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[18] We ended up deleting only about 6 observations per regression. While it had virtually no effect on the expenditure results, including these observations slightly increased the size of female suffrage's impact on state government revenue. For example, reestimating the results that we will be reporting in Table 3 with these additional observations implies that the impact of additional turnout due to female suffrage on total state government expenditures is .8297 (t-statistic = 2.661) and on total state government revenue is .8222 (t-statistic = 2.691).

[19] Because state expenditures and revenues were missing for some years, the changes in the average state's values between years were calculated for those states which had values in both adjacent years. When a state is missing no more than one consecutive year of data, the change between the two years for which the data is available is calculated and then divided by 2. These changes were linked to the average expenditure and revenue levels in the eleventh year

Figure 1: The Effect of Giving Women the Right to Vote on The Percentage of the Adult Population that Votes

The Percentage of the Over 21 Year Old Population that Voted

Years Before and After Women Were Given the Right to Vote in Different States: Year Zero is the First Year that Women Were Allowed to Vote in Different States

after suffrage was enacted. Graphing the means for the observed state expenditures and revenues in each year produces a very similar graph.

**Figure 2: The Effect of Giving Women the
Right to Vote on Per Capita State
Government Expenditures and Revenue**
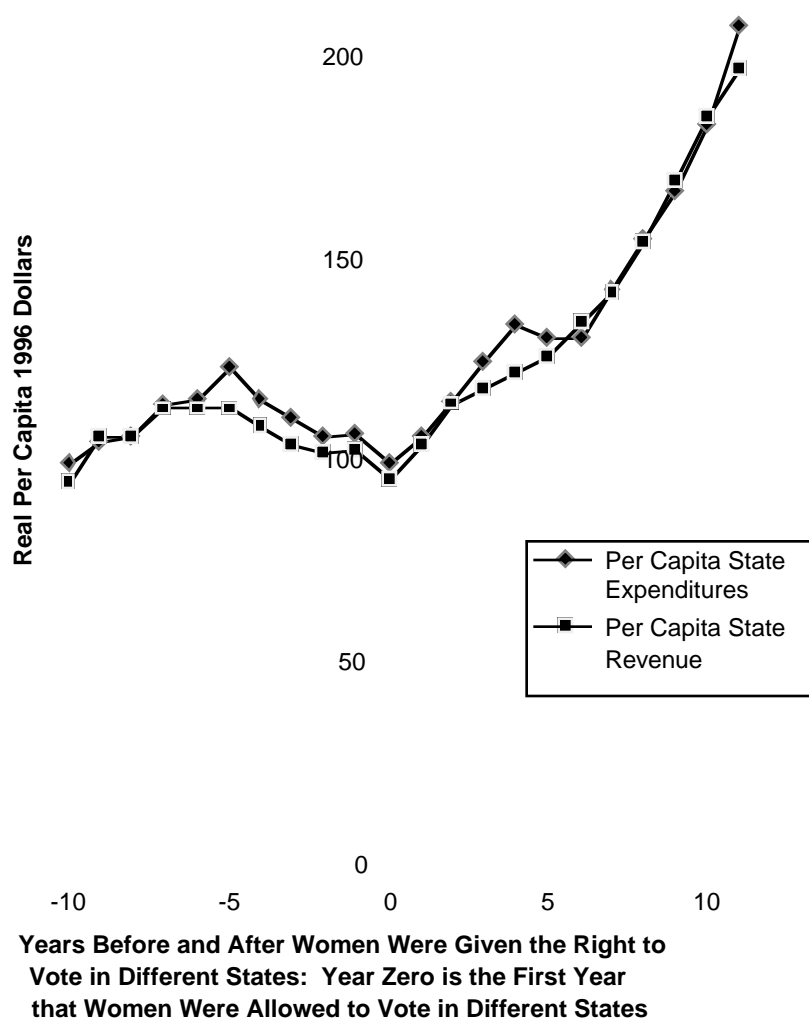
While some caution is needed in reading this graph—as nothing else is being controlled for—the figure illustrates the dramatic change in state governments when women were given the right to vote. State government expenditures declined for four of the five years before women began voting and expenditures reach their lowest point immediately before women were given the right to vote. Within four years after women's suffrage, expenditures had risen above their previous peak and, within eleven years, real per capita expenditures had more than doubled from $101 to $208.[20]

Given that the vast majority of spending for the fiscal year that coincided with "year zero" was decided immediately before women were allowed to first vote, it appears that legislators started approving increased spending only after women began to vote. This timing provides some evidence that the causation primarily runs from giving women the right to vote to larger government—as opposed to some left-out variable (e.g., a general change in values) which both resulted in women's suffrage and increased government spending.[21] We will return to the question of causation in Section VI.

One concern with Figure 2 is that many states made the decision to let women vote around World War I and that the war, rather than suffrage, may have prompted higher government expenditures.[22] Since the war ended in November 1918 and the 19th Amendment was ratified in August 1920, examining just the nineteen states that extended suffrage as a result of the Amendment allows us to see whether state governments started expanding due to the war and not suffrage. As shown in Table 1, this group of states included states from across the nation—most of which were not members of the old Confederacy (e.g., Connecticut, Delaware,

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[20] By comparison, 1994 per capita state government expenditures in 1996 dollars averaged $3,177.

[21] This result is quite consistent with more recent evidence that congressmen and senators do not alter their voting behavior when they face a new set of constituents—either due to running for another office or due to redistricting (see Lott and Bronars, 1993 and Lott and Davis, 1992).

[22] Of the 19 states where women voted for the first time in 1920, seven had state legislatures which approved the amendment (KY, MA, NH, NJ, NM, PA, WV) and twelve did not (AL, CT, DE, FL, GA, LA, MD, MS, NC, SC, VT, and VA). Figure 3 was put together in the exact same manner as Figure 2 described in footnote 29.

Kentucky, Massachusetts, Maryland, New Hampshire, New Jersey, New Mexico, Pennsylvania, Vermont, and West Virginia). Figure 3 provides equally dramatic evidence that state governments did not start expanding as a result of either the beginning or end of the war, but only once women were given the right to vote. Unfortunately, only one state had expenditure data and no states had revenue data for 1920, so the values shown in the figure for 1920 are essentially the average change from 1919 to 1921. While we are not able to pinpoint exactly when state government spending and revenue increased, state government expenditures continued to decline for a least one year after the war was over, which suggests that the subsequent increases were not due to the war.
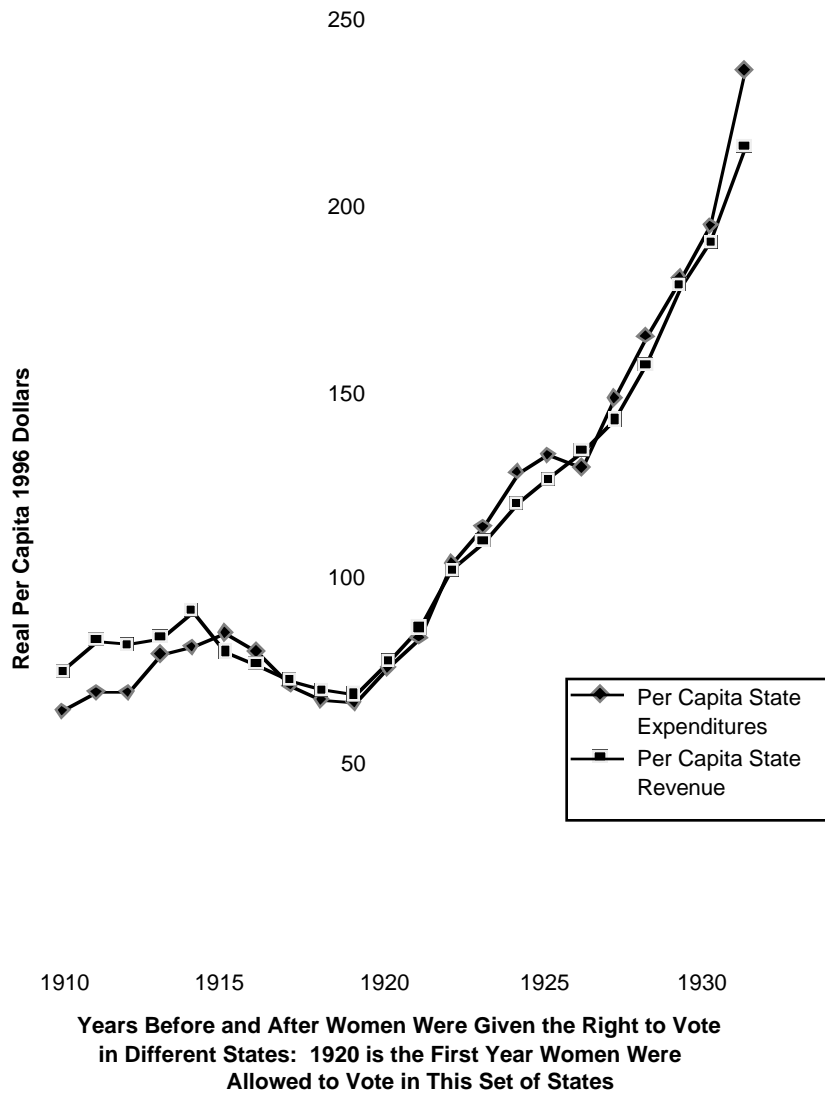
World War I appears to have had little noticeable impact on state governments, as the slight downward trend in state per capita spending and revenue that started in 1913 continues through 1919 and is remarkably similar to the pre-suffrage pattern observed in the full sample. If anything, the slightly greater explosion in government spending shown in Figure 3 may explain part of the reason why these states were the most reluctant to extend suffrage.

Obviously other socioeconomic variables must be accounted for when we attempt to explain changes in government revenue or spending. Data on illiteracy rates, foreign born population, male and female populations aged 21 or older, the percent of the workforce in manufacturing, and real manufacturing wages were obtained from the eight censuses conducted during this period.[23] Our business cycle measure was (ACTUAL GNP/TREND GNP).[24] The *Historical Statistics of the United States: Colonial Times to 1970* provided consistent decennial series on: total population, rural and elderly populations, and on the number of female gainful workers.

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[23] We also tried using the real average value per farm and a very crude measure of per capita personal income based on two sources, but this produced very similar results to those we show. Since the government series on state personal income goes back only to 1929, a crude measure of per capita personal income was created by combining the government figures for 1930 and 1940 with data on 1880, 1900, and 1920 from Lee, Miller, Brained, and Easterlin (1957). Interpolated estimates for 1890 and 1910 and extrapolated estimates for 1870 were created taking into account changes in U.S. GNP over these years.

[24] This was constructed from GNP data reported in *Historical Statistics of the United States: Colonial Times to 1970.*

**Figure 3: The Effect of Giving Women in the
Right to Vote on Per Capita State Government
Revenue for Only Those States Which Gave
Women the Vote in 1920**

Real Per Capita 1996 Dollars

250

200

150

100

50

Per Capita State
Expenditures

Per Capita State
Revenue

1910   1915   1920   1925   1930

**Years Before and After Women Were Given the Right to Vote
in Different States: 1920 is the First Year Women Were
Allowed to Vote in This Set of States**

Interpolation was also used to create inter-census estimates for all the socioeconomic variables. State dummies capture time-invariant cross-sectional differences in amenities, "tastes" for government, and institutional structure. The year dummies pick up changes over time in the relative price of government services, federal programs, national business cycle conditions, and "tastes" for government programs. However, the use of fixed state and year effects also has its drawbacks: while it may correctly measure left-out variables, it may falsely cause us to attribute some changes in government growth to fixed effects that should be attributed to variables like women voting.

Table 3 provides our first estimates of the effects of giving women the right to vote and of imposing and removing poll taxes. The specification regresses our estimated effects of women's suffrage on voter turnout from the appendix on measures of state government total expenditures and revenue. The coefficients for a female suffrage dummy, time since suffrage, and time since suffrage squared reported in Table A.1 specification 6 were used to create a measure of ADDITIONAL TURNOUT DUE TO FEMALE SUFFRAGE.[25] The estimates imply that after women were given the right to vote, voter turnout increased immediately and then grew steadily for many years. Similarly the coefficients from the same regression in the appendix on 1) poll tax, 2) a dummy indicating whether a poll tax has been removed, 3) time since removal of the poll tax, and 4) time since removal squared have been multiplied by their variable values, creating an estimate of ADDITIONAL TURNOUT DUE TO POLL TAX. With the exception of PROPERTY TAX (1230 observations), these regressions are based on 1541 to 1876 observations.

Granting women the right to vote is estimated to raise total spending and revenue. In Table 3, ADDITIONAL TURNOUT DUE TO FEMALE SUFFRAGE has significantly positive coefficients in the total expenditure and total revenue regressions but not in the other four regressions. Our voter turnout regressions implied that in a typical state, where 46 percent of the adult population is female, suffrage resulted in an immediate 17.5 percentage point increase in the fraction of the adult population

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[25] The other estimates of turnout produced similar results.

voting and in increases of 26 percentage points after 25 years and 33 percentage points after 45 years. Based on these estimates, granting women the right to vote caused expenditures to rise immediately by 16 percent (.175_.845 increase in log), by 24 percent after 25 years, and by 31 percent after 45 years. Similarly, female suffrage led to a 22 percent rise in revenue after 25 years and a 28 percent rise after 45 years.

Table 4 reports a simple dummy for whether women were allowed to vote times the fraction of the population over 21 that is female (FEMALE SUFFRAGE * FRACTION OF POPULATION OVER 21 FEMALE) and a dummy variable indicating whether a poll tax was in effect (POLL TAX). The interaction between the suffrage dummy and the percent female is used because the impact of suffrage on turnout depends upon how many women there are in the population. In the extreme, obviously if there were no women, enacting suffrage would not increase the percent of the adult population that voted, and thereby the size of government.

The results for the simple specification in Table 4 are consistent with the evidence in Table 3. Female suffrage has a significant impact only on total spending and revenue. Granting women the right to vote is estimated to raise total expenditure and revenue by 13 percent *on average* in our sample. Recall that the median state granted suffrage in 1918 and that our data do not extend past 1940. However, Tables 3 and 4 also produce a puzzle, but not sufficient data for an answer: what revenue and spending categories are increasing? Total spending and taxes are rising, but the components that we so far have been able to measure do not change much. The point estimates for social service expenditures are large and positive, and imply that these expenditures are increasing at least at half the rate of the increase in total expenditures in response to the growing influence of female voters. However, the coefficients are only statistically significant when the fixed year effects are replaced with a quadratic time trend. Unfortunately, the one tax category and three spending categories are not important enough to capture the major trends in taxes and spending. In this sample, property taxes are only 26 percent of state revenue and the three categories of spending that we can measure (education, social services, and transportation) account for just 41 percent of total expenditures.

Because of data limitations Tables 3 and 4 do not examine the increases for omitted revenue sources like income, poll, business, or sales taxes or for omitted expenditures on police, insurance trusts, natural resources, interest costs, higher education, regulation, or administration that are correlated with giving women the right to vote. Fortunately, some evidence of total state government expenditures by type are available from the *Historical Statistics of the United States: Colonial Times to 1970* for 1902, 1913, 1922, and 1927. Table 5 lists all the different components of expenditures. Over this period the eight largest absolute increases in per capita state and local government expenditures in real 1996 dollars were: education, $110; highways, $96; state government transfers to local government, $33; interest on general debt, $28; "other" general expenditures, $24; utilities, $19; sanitation, $12; and hospitals, $11. The influence of female voters may have been reflected in the large increases in education, sanitation, and hospital expenditures by local governments and the large increase in state transfers to local governments, which spend over a quarter of their budgets on education. Our inability to document the influence of women's suffrage on state education expenditures may be due to the very small role that state support played in education funding.

There is also the issue of whether higher state government expenditures are merely substituting for reduced expenditures at the local level. If giving women the right to vote merely transferred government operations from the local to the state level, it would be difficult to argue that suffrage was responsible for larger government. Table 5 demonstrates that this is not the case. While total per capita state government expenditures in real 1996 dollars rose from $42 in 1902 to $154 in 1927, local government spending also rose dramatically over the same period: $219 to $478.

The evidence is also weakly consistent with past work on the poll tax. Filer, et al. (1991) and Husted and Kenny (1997) show that poll taxes reduced voter turnout, particularly among the poor. As a result, the new pivotal voter had a higher income and should prefer less redistribution to the poor. This hypothesis is supported by evidence in Table 4 that it resulted in lower total spending and total revenue. On the other hand, the significant and negative coefficient on ADDITIONAL TURNOUT DUE TO POLL TAX and the significantly positive coefficients on POLL TAX in the SOCIAL

SERVICES regressions are not consistent with this hypothesis, though this interpretation is complicated by the inclusion of prison expenditures into this measure. The poll tax lowered turnout, which is estimated to raise spending on hospitals, charities, and prisons. Similarly, the results in Tables 3 and 4 showing that the poll tax lowered spending on education are not consistent with both the poll tax reducing voter turnout among the poor and the evidence that public education creates transfers to middle and upper income families (Stigler, 1970 and Lott, 1987). The poll tax is also associated with greater reliance on property taxes in Table 3.

Similarly, the literacy test was supposed to keep the illiterate from voting, again producing a new pivotal voter who preferred less redistribution than the old pivotal voter. The literacy test, however, also was used to keep immigrants with poor language skills from voting and to discriminate against blacks. Husted and Kenny (1997) find only weak support for the literacy test having a negative impact on welfare spending. The results in Table 3 do not support that evidence. Indeed, we find that the test raised social service spending (charities, hospitals, prisons). It was also associated with higher spending on education, higher total revenues (but not total expenditure), and lower highway budgets.

The secret ballot made it more difficult to monitor voting and thus greatly hampered vote buying. If the rich purchase votes to thwart income redistribution, Anderson and Tollison (1990) hypothesize that secret ballots should result in more income redistribution and thus greater spending. The secret ballot dummy variable is, however, not significant in these regressions.

Motor vehicle registrations per capita (MOTOR VEHICLE REGISTRATIONS) track the rise in highway budgets as the automobile grew in popularity.[26] It has the expected positive impact on highway spending.

Salaries are higher in urban areas, which primarily compensates for the higher cost of living. Since the price elasticity for government services is less than one, this should result in higher government spending. The significant and positive coefficients on

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[26] Passenger Cars and Motor Trucks Combined (includes road tractors after 1923). U.S. Dept. of Commerce, Bureau of the Census, *Statistical Abstract of the United States* . (various years, various editions).

LOG DENSITY in the total spending and revenue and education and social services expenditures regressions support this hypothesis. Similarly, total spending and revenue fall as the fraction living in rural areas (RURAL) increase; the significantly positive coefficient in the EDUCATION regression is puzzling.

The log of state population (LOG POPULATION) is utilized to capture economies of scale at the state level. The negative coefficients are consistent with economies of scale, but the elasticities between 2 and 6 seem implausibly large. Our business cycle measure (ACTUAL GNP/TREND GNP) adds little to the time dummies that are in the regressions. This variable is never significant.

An increase in either the fraction of the population that is black or the fraction 65 or older is associated with a rise in the potential population who depend on assistance and a fall in per capita income. Although there are some exceptions to this pattern, on net the income effect appears to dominate. Significantly negative coefficients are found for percentage black or elderly in three regressions.

Five variables are included to capture differences in income. Multicollinearity is likely to be a problem with so many similar measures in the same regressions, and indeed it appears to be so. The fraction of females 21-64 who are gainful workers (FEMALE WORKERS) has an unexpectedly negative impact on total and highway expenditures. The fraction of the population 21-64 working in manufacturing (MANUFACTURING) has the expected positive impact on total expenditures and revenue and on highway spending. The fraction aged 10 or older who are illiterate is negatively associated with expenditures on education but has unexpectedly positive coefficients in the highway and total revenue regressions. The fraction who are foreign born has a negative impact on spending on charities, hospitals, and prisons and on property taxes. The real wage per worker in manufacturing has a significantly positive coefficient in the total revenue regressions, but it has significantly negative coefficients in the total expenditure and highway regressions.

Our data also allow us to test whether our results arise because we are not accounting for Stigler's hypothesis that government growth and expenditure patterns can be explained by the innovation

of income taxes (1970, p. 9). We reran the regressions shown in Table 3 with a dummy variable for the introduction of the state income tax, but this did not alter our results and the dummy variable for the tax is negative but not statistically significant.[27]

V. Other Dimensions of the Effect of Giving Women the Right to Vote Part

If women vote differently then men, giving women the right to vote should affect other aspects of politics. On the national level, we should expect that members of the House and Senate should behave differently. On the state level, other issues were being decided besides the level and composition of state government expenditures and revenue. We have gathered data on prohibition, maximum hour, and divorce laws which would reduce the competitive threat that women poised for men in employment.

Congressional Voting Records

The measures of congressional and senate voting behavior are obtained from the legislative vote indexes compiled by Keith Poole and Howard Rosenthal (1991). Since 80 to 92 percent of Congressional voting can be described by their first dimension and since it is easiest to relate to liberal versus conservative voting dimension on issues, that is what we chose to explain. This score is positively correlated with what they label "conservative" positions. For example, more "conservative" legislators, with large positive voting index values, during the 1870 to 1940 period consistently opposed increased government regulation ranging from the Interstate Commerce Commission to the minimum wage law (Poole and Rosenthal, 1997, Chp. 6). They also claim that over this period the index consistently predicts congressional votes on other issues such as government spending—higher scores predict opposition to greater government spending in the 1870's as well as they do in the 1930's.

As with the voter turnout data, we calculated what the average voting score was for members of the House and Senate delegations

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[27] For example, the coefficient for the impact of additional turnout due to female suffrage on total state government expenditures is now .832 (t-statistic = 2.720) and on total state government revenue is .774638 (t-statistic = 2.763).

at the state level for each year from 1870 to 1940. In our sample, the mean and standard deviation in the Senate (House) were 0.025 and 0.492 (0.041 and 0.348), respectively. Table 6 reports results from regressions with the same specification as Tables 3 and 4. Results for the additional turnout specification of Table 3 are found in the top panel, and results for the dummy specification of Table 4 are shown in the bottom panel.

While the regressions reported here use the same sets of control variables that were used in Table 3, only the coefficients with respect to the voting rules are reported. The two consistent results were: allowing female suffrage resulted in a more liberal tilt in congressional voting for both houses, and the extent of that shift was mirrored by the increase in turnout due to female suffrage. The effects are quite large. For voting by House members, a one standard deviation change in the FEMALE SUFFRAGE * FRACTION OF THE POPULATION OVER 21 THAT IS FEMALE is able to explain about 16.5 percent of a one standard deviation change in how a state's House of Representatives delegation votes and a one standard deviation change in the additional turnout due to female suffrage explains about 20 percent. The impact is even greater in explaining how members of a state's Senate delegation vote, with 27 percent of a one standard deviation change in the delegations voting explained by the suffrage dummy times the percent of the over 21 year population that is female and 32 percent being explained by the additional turnout due to suffrage.[28]

Another way of understanding the importance of these changes can be seen in comparing how these changes correspond to the differences in political parties. For the House, a one standard deviation change in the FEMALE SUFFRAGE * FRACTION OF THE POPULATION OVER 21 THAT IS FEMALE produces a change in voting behavior that equals about 10 percent of the difference between the average voting score for the Republican

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[28] These changes in voting patterns are 10 to 20 times larger than the changes that are observed in other measures of contemporary congressional voting scores when constituent interests change or when redistricting occurs (e.g., Lott and Bronars, 1993). See also Jung et. al. for a related discussion.

and Democrat congressmen in 1913.[29] Poole and Rosenthal do not break out the analogous numbers for the Senate during this period of time, but, if anything, the change was likely to have been even more dramatic. Assuming that same difference between the parties in the Senate, the regression implies a change equaling 18 percent of the difference between the political parties.

We expected that the poll tax, by reducing turnout at the lower tail of the income distribution, would result in a richer, more conservative constituency who would oppose a more expansive government. However, these results imply that the opposite occurred. The significantly negative coefficients on POLL TAX and the significantly positive coefficients on ADDITIONAL TURNOUT DUE TO POLL TAX indicate that it was associated with a more liberal voting record in Congress. (In interpreting these results, it is important to remember that the poll tax lowers turnout, making ADDITIONAL TURNOUT DUE TO THE POLL TAX a negative number.) Thus, surprisingly, all four specifications imply that the poll tax works in the same direction as female suffrage, which is inconsistent with the POLL TAX results for spending.

Prohibition Laws

Women dominated the temperance movement. In Table 7, we examine whether their electoral influence raised the likelihood that states would prohibit the sale of liquor. Kansas, Maine, and North Dakota enacted prohibition laws between 1880 and 1890. Five states enacted prohibition in 1907-09, followed by twelve more between 1912 and 1915 and another twelve between 1916 and 1918.[30] The U.S. constitutional amendment on prohibition was adopted in 1920, and our sample is confined to the period through 1920. Results for two probits explaining whether prohibition had been adopted by the

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[29] This number was constructed using Figure 1 in the 1991 Poole and Rosenthal paper.

[30] The sources that we used for this were: Ernest H. Cherrington, *The Evolution of Prohibition in the United States of America.* Westerville, Ohio: 1920, The American Issue Press; Edward B. Dunford, *The History of the Temperance Movement.* Washington, D.C.: 1943, Tem-Press; D. Leigh Colvin, *Prohibition in the United States.* New York, N.Y.: 1926, George H. Doran Co.; as well as state statutes (as a check).

state or federal government are found in Table 7. In both, women's suffrage had a highly significant impact, raising the odds of prohibition. While these results control for state fixed effects, we were only able to get the probit regressions to converge by replacing the year fixed effects with a time and time squared trend.

To the extent that poll taxes reduced the influence of the poor and given that temperance was more a middle class movement, a poll tax would increase the likelihood of prohibition being adopted. In the top panel, there is evidence that this raised the probability of there being prohibition.

Maximum Hours Legislation

Many states passed laws limiting the hours that women could work during this time period. Eleven states had passed a maximum hours law by 1900, and 29 additional states follow suit in the next twenty years. One traditional explanation for these laws is that they benefited men at the expense of women. Landes (1980) suggests that there is a more complicated relationship going on. She provides evidence that these laws largely left the employment of native white women unaffected, but that they did hurt new immigrant women. While Landes did not examine the impact of women's suffrage on the passage of these laws, the traditional explanation and Landes' evidence imply different predictions. The traditional explanation would predict that woman's suffrage should negatively impact the probability of these laws being passed, while Landes' explanation would likely imply little relationship since new immigrant women are unlikely to be voting at very high rates.[31] Using Landes' dates on the enactment of these laws, Table 7 reports the probits that explore whether the passage of suffrage had any effect on this legislation. Consistent with Landes' explanation, no effects from suffrage are found.

Divorce Laws

Government can make direct wealth transfers not only through taxes and expenditures, but also through the assignment of legal

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[31] See Goldstein (1984) for some evidence from Illinois that immigrant women were particularly unlikely to vote during at least the first seven years after suffrage was granted in that state.

rights. For example, women have used suffrage to alter divorce laws.[32] The results in Table 8 indicate that allowing women to vote increases the length of time after desertion before divorce is granted and increases both the probability that a state will allow permanent alimony to be granted and the probability that it will only be granted to women. There is some evidence, though it is not statistically significant, that suffrage also increases the probability that only women will be granted alimony while a divorce suit is pending. All of these effects seem consistent with what one would expect women would want. Lengthening the number of years before desertion qualifies for divorce makes divorce more costly for men because they are not able to remarry quickly and thus would seem to protect women's relatively higher investments in household production. Likewise women obviously benefit from restricting alimony only to women and allowing it to be granted permanently, which again allows women to concentrate more fully in investing in household production. The one puzzle in these results is the finding that suffrage lowers the probability that alimony will be granted while the divorce suit is pending.

All these results in Table 8 were produced using Ordinary Least Squares. Especially with the regressions examining the simple dummy variables for whether alimony could be granted to only women or men and women, the ideal specification is to use a probit or logit procedure. Unfortunately, when we did this the results did not converge when state and year fixed effects were used. Using the probit procedure and excluding the fixed effects produced dramatically more significant results that are consistent with the notion that suffrage benefited women, but we are skeptical of how much weight to give any estimates that do not at least include the state fixed effects.

VI. The Issue of Causality

As noted earlier, one of the more difficult problems in examining these questions is the issue of causation. The preceding results which link the extent of the legislative changes to how many

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[32] All the divorce rules were gathered from Chester G. Vernier, *American Family Laws,* Volume II. Stanford, CA: 1932, Stanford University Press. (pp. 32-36, 312-320, 268-273) as well as a search of state statutes.

more women are voting help answer this question, but they are not enough. A general concern is that higher government spending or more liberal congressional delegations may arise not from women voting, but from something else that may cause both women's suffrage and larger government. Fortunately, the data here provides us with a relatively unique way of dealing with this issue. Not all the states voluntarily granted suffrage. If in fact there is a political climate that both promotes suffrage and bigger government, one would expect the changes in government size to show up only in states that voluntarily granted suffrage. To do this, we defined voluntary states as those which either adopted women's suffrage on their own or voted in favor of the 19th amendment.[33]

The results reported in Table 9 imply virtually no difference in House delegation voting from either giving women the right to vote voluntarily or as a result of the 19th amendment. The results for the Senate voting do, however, indicate that while both types of states saw their Senate delegations voting more liberally, the voluntary states experienced a statistically significant bigger change. The Senate results imply that while giving women the right to vote shifted the political spectrum, at least part of the change (about a third), may have been due to other pre-existing tendencies in a state and not women voting per se.

The results on state government revenue and expenditures differ from the Senate voting scores, though they generally confirm what was observed in Figures 2 and 3. Again, while both sets of states move in similar directions, states that were forced to grant women suffrage experienced much more profound changes in voting than did those that voluntarily granted these privileges. These differences are again quite statistically significant, and they strongly rule out the possibility that higher government spending simply arose because there was something that was correlated with both giving women the right to vote and a desire for greater government spending.

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[33] The states which had not granted suffrage but which voted for the 19th amendment were: Kentucky, Massachusetts, New Hampshire, New Jersey, New Mexico, Pennsylvania, and West Virginia.

VII. So Why do Women Vote so Differently?

Basically two explanations based upon direct financial self-interest have been advanced for why women vote differently than men. Either they were more likely to be employed by the government or they were more likely to value the services of the government and least likely to bear the burden of progressive taxes to finance those services. This second financial interest explanation was directly tied to whether women had children or were married. In this section we will concentrate on providing tests for these first two explanations using general election exit poll data in two different ways. Because some variables such as the percent of state government employees that are women are only available at the state level, we will use state level polling data on the gender gap for the first set of estimates. We also examine the impacts of marriage and children on voting using individual level poll data, which are more suitable for investigating these effects.

While female and male government employment data are not available during the period when women were first given the right to vote, fortunately some unique modern polling data are available to help us test whether women are voting for their direct financial interests. Voter News Service collected general election exit polling data for national news bureaus (CNN, CBS, ABC, NBC, Fox, and AP) for the 1990, 1992, 1994, and 1996 elections. Earlier general election exit poll data were available from CBS for 1988. These polling data were available for gubernatorial, senate, and presidential elections for most states and they showed the percentage of both males and females that voted for both the Democrat and Republican candidates. We were able to combine these data with information on the percentage of state and local government employees who were women from 1988 to 1994.

The first test is actually very simple. The question is whether the gender gap in gubernatorial elections across states and over time can be explained by the percent of state and local government employees who are women. The gender gap is defined as the percentage of females who voted for the Democrat minus the percentage that voted Republican and all that minus the same party difference for male votes between the two parties. The difference between the percentage of male votes for the Democrat and that

percentage for the Republican is included so as to separate out true gender gaps from political landslides. To control for other things that might influence this gender gap, we also included the gender gap that existed for senate or presidential races, though these were included separately because presidential elections rarely overlap with gubernatorial elections. Using federal elections, especially presidential elections, provided a useful contrast with gubernatorial elections because presumably the stakes for female employment at the federal government level were similar across all states.

The regressions that test this relationship in Table 11 examine whether or not results are sensitive to the inclusion of fixed state and year effects. The fixed effects for the states should capture time invariant differences in the states in the propensity for men and women to have different positions, while the year effects will pick up how these propensities vary over time at the national level. Thus, federal election gender gaps (either senate or presidential) may measure the same forces that explain gender voting differences as do these fixed effects. To account for these possibilities, the results in Table 11 report three sets of estimates: fixed effects together with the gender gap in federal elections, the gender gap in federal elections, and fixed effects alone. None of the specifications indicate a positive and significant relationship between government employment and the gender gap in the gubernatorial election. Indeed, in specification 3, which produces the only statistically significant result, the coefficient is negative. Generally, it made no difference whether the Republican gubernatorial candidates were men or women, but the sex of the Democrat was extremely important both economically and statistically.[34,35]

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[34] Running a man as the Democrat nominee reduced the gender gap by usually by between anything from 6 to 13 percentage points, though specification 3 implies an incredible 31 percentage point change. We attempted to see whether the gap arising from the Democrat nominee's gender was primarily driven by male or female voters by rerunning these regressions separately on the gaps in male voters or just the gaps in female voters. The results showed that we could not reject the hypothesis that both sexes were equally responsible for producing this gap. It would be interesting to relate these differences in constituencies to differences in the way women and men vote once in office. Given these findings, we would expect that there to be relatively little voting differences among Republican representatives by sex as compared to Democrats.

A second test focuses on whether women's voting patterns are affected by the risks that they face in raising children as single mothers. To examine this, we regressed measures of the gender gap on the number of households where single women are raising children by themselves divided by the number of married couples raising children. Unfortunately, since the data are only collected during the censuses, we are only able to run a simple cross-sectional regression and thus unable to take into account year and state fixed effects. Restricting ourselves to only 1990 also limits us to examining gubernatorial or senatorial elections. Besides controlling for the candidate's sex, we attempted to control for unemployment rates and per capita income as rough measures of the difficulties women might face in raising children.[36]

Table 12 presents mixed results. Increasing the number of single mothers relative to the number of couples raising children is associated with greater gender gaps for both gubernatorial and senate elections, though the effect is statistically significant only for the larger sample of gubernatorial races. A one standard deviation increase in the single mother/married couple ratio produces a 9 to 12 percentage point increase in the gender gap in gubernatorial elections. The corresponding number for the senate races is 2 to 7 percentage points.[37]

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[35] While not reported, additional data were available, though only available for 1990, on the percentage of women employed in just state governments. Possibly because of the even smaller sample, using this measure produced even less statistically significant results.

[36] We also tried including the poverty rate, but it did not make any difference in the results.

[37] Another test examines whether women are particularly sensitive to the risk of losing their health insurance. Stark (1996) and Colson and Pearcy (1996, p. 112) claim that women were far more supportive of President Clinton's health-care plan because women are less likely to be covered by existing insurance plans. Ideally, we would like to have a variable measuring the rate that adult women specifically lacked health insurance by state. Unfortunately, the only measure that we were able to obtain provided the percentage of uninsured for the total population in each state. Using this measure, we replaced the single mother/married couple ratio in Table 12 with the percent of the population without health insurance. None of the results support this hypothesis (the results are available from the authors). Half of the coefficients are negative,

Given that the interests of married men and women should be closely linked (see our discussion in Section II), we examined whether marriage and the presence of children altered women's political positions. To do this, we used the individual respondent data in the 1988 CBS News General Election Exit Poll and the 1996 Voter News Service National General Election Exit Poll. The surveys not only asked for whom people voted in the presidential election and what issues they were most concerned about, but also questions concerning their income,[38] type of employment,[39] education,[40] religion,[41] age,[42] race,[43] sex, how urban or rural was the area they lived in,[44] whether they and/or anyone in their family were union members, as well as what state they lived in.[45] The General

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while half are positive. In none of the specifications are the coefficients statistically significant.

[38] The respondents for the 1988 election were asked if their income was less than $12,500, $12,500 to $24,999, $25,000 to $34,999, $35,000 to $49,999, $50,000 to $100,000, and over $100,000. For the 1996 election, the categories are under $15,000, $15,000 to $30,000, $30,000 to $50,000, $50,000 to $75,000, $75,000 to $100,000, and over $100,000.

[39] These categories were: out of work, professional or manager, school teacher, other white collar, blue collar, agriculture/farm, full time student, homemaker, or retired. They were only available for the 1988 survey.

[40] The education categories for both surveys were: did not graduate from high school, high school graduate, some college but no four years, college graduate, or post graduate study.

[41] The religious categories for both surveys were: protestant, catholic, fundamentalis or evangelical christian, other christian, jewish, something else, or none.

[42] For the 1988, the age question asked whether people were 18 to 29, 30 to 44, 45 to 59, or 60 or over. For the 1996 survey, 18 to 24, 25 to 29, 30 to 39, 40 to 44, 45 to 49, 50 to 59, 60 to 64, and over 65.

[43] For the 1988, the race categories were: white, black, hispanic, or other. For 1996, a category for asian is added.

[44] The urbanity categories for 1988 were: cities over 500,000, 250,000 to 499,999, 50,000 to 249,999, suburbs, 10,000 to 49,999, and rural. The 1996 categories were: cities over 500,000, 50,000 to 499,999, suburbs, 10,000 to 49,999, and rural.

[45] For 1988, the states were: California, Connecticut, Florida, Illinois, Indiana, Iowa, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Oregon, Pennsylvania, Texas, Vermont, Washington, and Wisconsin. While a small

Election Exit Polls means and standard deviations are reported in Table 13. Using logit regressions, the first set of specifications tested whether people's marital status or presence of children under 18 affected either their party affiliation, whom they supported for president, or their ideology. The regressions utilize, in addition to individual state dummy variables, dummy variables representing over 50 different personal characteristics listed above. The missing category was married men with no children, so all the coefficients for marital status and the presence of children are evaluated relative to that benchmark.

The survey also inquired about: "Which issues mattered most in deciding how you voted [for President]?" Voters were given a selection of nine topics and they were allowed to pick zero to 2 of the choices. These included: taxes (1988 and 1996), education (1996), and whether the candidate cared about poor people (1988). The obvious problem with this question is that, except in the case of helping poor people, the poll asked what determined how people voted and not what their positions were on these issues. To correct this, we interacted the choice of these issues with whether a person vote for the Democrat or Republican presidential candidates, the notion being that if one supports the Democrat and these issues were the most important in determining how one voted, the interaction of these two variables should be correlated with the Democrat's views on these issues.

The results shown in Table 14 indicate that single women with children were the most likely to support Dukakis and Clinton, to consider themselves to be a Democrat, to identify themselves as a liberal, to support Democrat positions on taxes and education, and care about the poor.[46] Single women were also the least likely to have voted for Dole or identify themselves as Republicans. Married women's views were consistently closer to the average man's views, though there is still a large and statistically significant gap that exists

number of people were surveyed for the 1996 exit poll, almost all the states had a least some respondents.

[46] Other unreported results that are available from the authors indicate that single women with children are much more likely to support Democrat positions on the economy and jobs and on ways to help the middle class. The interactions between Republican and education are not reported but are the mirror image of those for the Democrat interaction.

between married women and men. The change in the odds ratio in favor of women voting for Dukakis in 1988 fell by .12 percent comparing a single woman without children with a married woman without children. Larger changes in voting behavior are implied for the 1996 presidential election. Assuming that this pattern existed when women were first given the right to vote, the findings imply that even before concerns over large numbers of single women raising children on their own existed, there would still have been a significant change in voting outcomes. Possibly, just as the growth in female turnout was leveling off during the 1960's, the rise in divorces and out of wedlock births created additional support for larger government among women.[47]

There are however some surprising twists. Once married women and men have children, the gap between them again becomes larger even though married women with children are becoming more conservative because married men are becoming even more conservative. Single men raising children on their own were the most similar to women in all but one of these dimensions, though even here there is usually a substantial difference between them and the women with the most similar voting patterns. Perhaps because they have no spouse to assist them in raising their

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[47] Similar regressions were run to estimate the impact of marriage and children on support for abortion (the results are available from the authors). We suspect that on abortion it is single women who would bear the greatest cost from pregnancy and who should be most inclined towards supporting its legalization. The issue for married women is more complicated because while they too face the costs of raising a child if their husband disserts them, opposing abortion makes it more costly for women to have sexual relationships outside of marriage and thus may make affairs less likely. The point estimates for the interaction of the Democrat presidential candidate and abortion-matters-the-most-dummy imply that single women are more concerned about abortion than married women, but the differences are not statistically significant. The interaction of Republican and abortion matters implies that married women are much more likely to oppose abortion than single women—indeed the odds ratio of a woman opposing abortion increases by between .25 and .45 percent when she gets married. (To calculate these percentages, we use the approximation 100*[exp(change in coefficient)-1].) A slightly more continuous variable that was available for 1996 also shows that married women are much more likely to oppose abortion than are single women.

children, single men with children would also like government aid
so that they could spend more time with their children.

While these results are consistent with our discussion of how
women should vary their political support depending upon their
circumstances, there is the concern that a self-selection problem may
exist: liberals may not value the institution of marriage and may be
more likely to raise children on their own. A similar phenomenon
may be occurring for men.[48] If time-series cross-sectional data on
individual voting patterns as well as a person's marital status were
available, solving the issue of causality would be relatively
straightforward. We could then observe whether an individual's
political preferences change when their marital status changes or
when they have children. Unfortunately, political polling data does
not ask the same people about their preferences and personal
characteristics on many different occasions over the years. The
closest that we can come to this is a question in the 1988 and 1996
polls that asked people who they voted for in the previous
presidential election, though there is no information on how the
respondent's personal characteristics changed over the intervening
years. An admittedly second best option is to explain changes in
presidential voting across elections using only relatively young
individuals between the ages of 18 and 30. Presumably at least some
of these young people who are currently married did so between the
presidential election for which they answered these poll questions
and the previous presidential election, so we ran the change in their

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[48] As a test of this, we reran the regressions reported in Table 14 by removing
the seven interactions for sex, marital status, and children present and instead
used them each one at a time as the endogenous variables. The other change
was to take the variables measuring political preferences that had been
endogenous variables and instead use them as explanatory variables. All the
other control variables remained unchanged. Thus all eight interactions for
sex, marital status, and children present were run on the ideology measure and
then on the presidential vote as well as the party identification dummies.
 While the results for the men indicated no clear order, the pattern for women
was exactly the same as that already reported in Table 14. For example, the
most liberal women were most likely to be single with children, the next most
liberal to be single without children, and the most conservative were likely to
be married with children. In fact, the only two cases that deviate from this
ordering are the two cases for Dole in 1996 and the Republican Party in 1988
where the previous results also differed from this pattern.

presidential voting on the set of coefficients used in Table 14. Using the poll data for 1996, the regressions imply that married women with and without children were less likely to vote for President Clinton the second time around—but the only the coefficient for women without children was statistically significant. The coefficient on single women with children was positive, but it was only statistically significant at the 12 percent level using the 1996 poll data. The point estimates for the 1988 poll results were similar, but were not statistically significant.[49] The preceding regressions controlled for whether women were currently married, but not for whether they had never been married. Census data for 1990 allowed us to compare the percentage of the adult female population who had never been married or who were currently married for three different age groups (20 to 44, 45 to 64, and 65 and over), though these data only allow us to use the state level poll results for 1990. Perhaps not surprisingly—given the small sample and the high correlation between these different measures—[50] regressing either the gubernatorial or senatorial gender gaps on these six measures and the candidate gender dummy variables did not produce statistically significant results. Next we tried explaining the two different types of gender gaps by using one measure of female marital status at a time, as well as the candidate gender dummy variables. They indicate a consistent pattern with more never married women increasing the gender gap and more currently married women reducing it. The coefficient estimates between the two categories of women are always statistically different from each other at least at the 10 percent level for a two-tailed t-test for each of the age group categories and for each type of race. The same test was performed by looking at the importance of all never married or currently married adult women and obtains a similar pattern of results. Again the differences between the two categories of women are statistically significantly different from each other.

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[49] We also reran these specifications using only the data for those over age 30 since the variables for marriage or children will be less related to recent changes in their marital or child rearing status. Indeed, this set of regressions produced less consistent patterns and were much less statistically significant.

Taken together these results provide consistent evidence that women and men benefit differentially from government policy and some, albeit weaker, evidence that marriage works to make women more conservative. The effects also appear to be quite large, though marriage only cuts the difference between men and women by at most half and the possibility of sorting makes this estimate an upper bound.

VIII. Conclusion

Giving women the right to vote dramatically changed American politics from the very beginning. Despite claims to the contrary, the gender gap is not something that has arisen since the 1970s. Suffrage coincided with immediate dramatic increases in state government expenditures and revenue, and these effects continued growing as more women took advantage of franchise. Similar changes occurred at the federal level as female suffrage led to more liberal voting records for the state's two Congressinal delegations. In the Senate, suffrage changed voting behavior by an amount equal to almost 20 percent of the difference between Republican and Democrat senators. Suffrage also coincided with changes in the probability that prohibition would be enacted and changes in divorce laws. We were also able to deal with questions of causality by taking advantage of the fact that while some states voluntarily adopted suffrage others where compelled to do so by the 19th Amendment. The conclusion was that suffrage dramatically changed government in both cases. Accordingly, the effects of suffrage we estimate are not reflecting some other factor present in only states that adopted suffrage.

Not all women immediately took advantage of the right to vote. About half of the ultimate percent of women who eventually voted in elections appeared to have started voting immediately after suffrage was granted and most of those women were in the 45 to 64 year old age group.

More work remains to be done on why women vote so differently, but our initial work provides scant evidence that it is due to self-interest arising from their employment by government. The only evidence that we found indicated that the gender gap in part arises from women's fear that they are being left to raise children on

their own. If this result is true, the continued breakdown of the family and higher divorce rates implies growing political conflicts between the sexes. The data also show that marriage does not eliminate all the difference between men and women.

Interestingly, we also find that both women and men care a lot more whether the Democrat is a women or a man than they care about the sex of the Republican candidate. Women flock to a female Democrat as quickly as men desert them. Future work should examine whether in fact a candidate's sex appears to primarily predict the voting behavior of Democrat candidates.

Claims that the gender gap has arisen as men have left the Democrat party and that the "modern" gender gap has only arisen since the 1970's can now be put in a different perspective (Stark, 1996, p. 78). Combining these claims with our work implies that the gender gap disappeared during the 1960's and 1970's as men moved towards women, but that it reappeared again when men moved back to their original position relative to women. Indeed, the 1960's and 1970's witnessed one of the largest fundamental increases in government both in terms of entitlements and regulations. Obviously, our work suggests also additional tests that can be done with cross-country data, but we believe that the data put together for the current paper still presents a comprehensive start to this question.

Appendix: The Relationship between Voter Participation Rates and Female Suffrage

A.1 A Theory

For many individuals, the economic and consumption benefits from voting appear to barely cover the cost of voting. According to estimates, even small changes in the costs and benefits have sizable impacts on voter turnout. Over the past two centuries, the barriers to voting have been lowered successively: replacing property requirements with poll taxes, allowing black males to vote, allowing women to vote, and most recently outlawing poll taxes and literacy tests.

Over a lifetime, individuals acquire "political capital" about party positions and candidates, and this knowledge increases the likelihood of voting for the best candidate or policy. But a 50 year

old, just given the right to vote, may not find it worthwhile to acquire any political capital and therefore abstains from voting. On the other hand, a 25 year old, facing a lifetime over which to use political capital, is more likely to become informed and participate in elections. The decisions to vote and acquire political knowledge are thus simultaneously determined.[51]

Potentially, it can take many years before the full impact of voting reform is manifested, as cohorts with only a few years to benefit from voting will gradually be replaced. The larger the necessary investments in political capital, the younger a potential voter must be before it will pay to make them, and the longer it will take before the full adjustment is made.

The growth in turnout as cohorts with little incentive to acquire knowledge are replaced by newer cohorts may be more complicated than we have just described. Elderly women have a greater starting stock of knowledge simply by virtue of having had the opportunity to learn about issues over many years. They may already have acquired a great deal of information about political issues even if they never invested particularly heavily in learning about them in any given year and thus may be more likely to take advantage of the new voting franchise, other things equal.

How long is this lag? There is little evidence on how long it takes voter turnout to fully respond to an expanded voting franchise. Filer, Kenny, and Morton (1991) found that the poll tax, which was repealed in 1964 under the 24th Amendment, was still depressing turnout 16 years later. In fact, about a third of the poll tax's dampening impact still remained in 1980, sixteen years after its removal. Their paper examined turnout in only four elections —the 1948, 1960, 1968, and 1980 presidential elections —and their data set was therefore inadequate to estimate how voting rates adjusted over time.

In contrast, we use a much larger data set over a much longer period of time, observing gubernatorial elections on a biennial basis from 1870 to 1940. The turnout in gubernatorial elections for all 48 contiguous states is viewed as dependent on the imposition and removal of poll taxes as well as giving women the right to vote. We

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[51] It is interesting to note that people's political views are formed relatively early in life and appear to change relatively little over time.

find evidence of long lags before the full effects of either women's suffrage or the poll tax on voter turnout were realized. Our paper also adds to the empirical literature on historical voter turnout, a literature that has been rather meager despite the many fundamental changes in voting regulations.[52]

A.2 The Empirical Framework

Data on up to 36 biennial years in 1870-1940 were obtained for the 48 states in our sample. Infrequent elections and recent statehood reduced the sample to 1215 elections.[53] The dependent variable (GOV TURNOUT) is defined as the fraction of the total population (and not just the population that was eligible to vote) aged 21 or older who voted in the state's gubernatorial election.[54] This variable ranges from 2 to 83 percent, with a mean of 37 percent. In 1870-1908, the mean for GOV TURNOUT was 32 percent (for all but the four states that had approved women's suffrage before 1910). Other things equal, turnout should have risen to 59 percent after women were given the right to vote—given their slightly lower portion of the population and assuming that they had the same participation rate as men. By the end of our sample (1936-40), average turnout had risen to 55 percent, which is quite close to current rates.

The socioeconomic and voting law variables that are used to explain changes in voter participation rates are the same as those used in Table 3. Admittedly, there are many state-specific and year-specific differences in voter turnout rates that will not be captured by the variables that we control for and other differences that might affect the returns to voting over time. One simple way of dealing with this is the use of state and time fixed effects, where a separate dummy variable is used for each state and year. Again, there is still the concern that while these fixed effects measure left-out variables. While fixed-effects may correctly measure left-out

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[52] See Settle and Abrams (1976), Rusk and Stucker (1978), and Heckelman (1995).

[53] A gubernatorial election, if available, from the prior odd year was used if there was no election in the even year.

[54] The number of votes and the margin of victory were found in Glashan (1979).

variables, it may also cause us to falsely attribute some of the impact of changes in our other variables, (for example, voting rules) to these fixed effects.

Three sets of variables are employed to estimate the effects of giving women the right to vote and of imposing and removing poll taxes. As in the government expenditure and revenue regressions, the first specification reports a simple dummy variable indicating whether a poll tax was in effect (POLL TAX) and a dummy for whether women were allowed to vote times the fraction of the population over 21 that is female (FEMALE SUFFRAGE * FRACTION OF POPULATION OVER 21 FEMALE). The interaction between the suffrage dummy and the percent female is used because the impact of suffrage on turnout depends upon how many women there are in the population. In the extreme, obviously if there were no women, enacting suffrage would not increase the percent of the over 21-year old population that voted.

The second specification allows for an initial effect that depends on the fraction of adults who were female when suffrage was adopted (INITIAL FRACTION OF THE POPULATION OVER 21 FEMALE) and captures women's lag in taking advantage of the right to vote with a spline. The spline estimates a piecewise linear relationship between turnout and the time since granting women's suffrage. Define YEARS AFTER PASSAGE to be the time since women obtained the right to vote. Furthermore, let

FEMALE SUFFRAGE: 0-T YRS _ YEARS AFTER PASSAGE if YEARS AFTER PASSAGE _ T _T
if YEARS AFTER PASSAGE > T
FEMALE SUFFRAGE: T+ YRS __0 if YEARS AFTER PASSAGE _ T _(YEARS AFTER PASSAGE - T)
 if YEARS AFTER PASSAGE > T

These two variables also are multiplied by the current fraction of adults who are female. The regression coefficient on the first variable (FEMALE SUFFRAGE 0-T YRS * FRACTION OF THE POPULATION OVER 21 FEMALE) captures the rate of increase in turnout over time in the first T years after suffrage was granted, and the coefficient on the second variable estimates

the rate of increase in turnout after at least T years have passed. After searching in yearly increments, T* was estimated to be 9 years in the specification with no fixed effects. Although the fixed effects estimation suggested that two segments were not needed, a spline for T* equal to 5 is reported for comparison. Poll taxes are allowed to have a lingering effect. POLL TAX LINGER _,T' equals 1 when a poll tax is in place, _ immediately after the poll tax is repealed, and declines linearly to 0 over T' years.

The third specification uses a quadratic time trend to estimate the lagged response to the granting of women's suffrage. This formulation includes a dummy variable for the enactment of the suffrage law, the number of years since adoption, and that time trend squared. The first is multiplied by the initial fraction of adults who are female, and the second two variables are interacted with the current fraction of the over 21-year old population that is female. For the poll tax, a similar set of variables (a dummy, a time trend since repeal, and that time trend squared) are also used.

A.3 The Impact of Giving Women the Right to Vote and the Effect of Poll Taxes

Table A.1 reports means and standard deviations for the independent variables and the results of regressions based on the three specifications described above both with and without year and state fixed-effects. The regressions fit the turnout rates well, with little noticeable differences between the three specifications. The hypotheses regarding literacy tests, age, real wages, and the number of voters receive much less support in the fixed effects specifications than in the regressions without state and year fixed effects. Generally, consistently significant and predicted effects on voter turnout were obtained for: the presence of presidential elections, the winning gubernatorial candidate's vote share, the relative manufacturing wage, the percent foreign born, the secret ballot, female suffrage, and the poll tax. Let us now turn to the specific results.

FEMALE SUFFRAGE * FRACTION OF THE POPULATION OVER 21 FEMALE is employed in the simple specification in the first and fourth regressions. Evaluated at the mean fraction female (.46), granting women the right to vote is estimated to increase voter turnout by 14 to 21 percentage points *on*

average over the sample. While the 13 percent estimate with the fixed effects probably underestimates the true impact, the 21 percent is likewise undoubtedly too high.

Two specifications estimate the lag in voter turnout to women being given the right to vote. Regressions 3 and 6 use a quadratic time trend. There is evidence for a diminishing rate of increase in turnout after women's suffrage was granted in regression 3, but not in the fixed effects specification (regression 6). In regression 3, turnout initially is 17 percentage points higher and rises at a diminishing rate until 55 years after suffrage was granted; at this point, turnout is 30 percentage points higher than before women got the right to vote. For regression 6, women's suffrage raises turnout initially by 17.5 percentage points and after 44 years by 32 percentage points, which is the level where women turnout would be the same as male turnout prior to women suffrage. Interestingly, when the Census Bureau first asked people about voting in 1964, it found out that women justly slightly made up the majority of voters, and their share has continued to grow over time since then (Byrne, 1996, p. 1A). Given that 36 states gave women suffrage between 1917 and 1920 and that these were by far the most populous states, 44 years after 1920 is in fact 1964. It was not until 1984 that women actually voted at a higher rate than men.

The spline results are reported in regressions 2 and 5. The best fit was obtained by allowing the slope on YEARS AFTER PASSAGE to change 9 years after suffrage was granted in regression 2. The highly significant coefficients in regression 2 imply that women's suffrage raises turnout initially by .134 and that turnout rises by .009 each year for the next 9 years until it has risen by .215. The subsequent rate of growth, although significantly positive, is only one third the growth rate found in the initial segment; it takes 44 years from passage for turnout to rise by .32. The results for regression 5 tell a similar story. Turnout initially rises by .132 and after 5 years has grown by .195; another 45 years are needed for suffrage to have brought about a .32 rise in voter turnout.

One further test was made on the effect of suffrage. A question exists over whether the greater share of the adjustment is made by younger or older women. If the decision to vote involves a question of whether women will be able to recoup large sunk investments in

learning about politics, it will be the relatively young women who should be most responsive to the new rights. Another interpretation is that younger women do not have of "habits" of not voting. It is not only the issue of having to acquire new capital, but of habits that it are difficult to overcome. Both theories make the same prediction: younger women should respond the most. On the other hand, it is possible that older women—even if the returns to acquiring new political capital are low—have acquired a greater stock of political capital simply by virtue of their longer life experience.

To test this, we use not only the variable FEMALE SUFFRAGE * FRACTION OF THE POPULATION OVER 21 FEMALE, but also two new variables that interact the suffrage dummy for the first year that women are allowed to vote times the fraction of women over 21 who were either 45 to 65 years of age or at least 65 years old at the time suffrage was granted. The omitted category was the initial fraction of women between 21 and 44 years old. Reestimating specifications 2, 3, 5, and 6 with these new variables produced very similar results. The results consistently suggest that there was a greater initial increase in turnout in states with a larger fraction of adult women who were 45 to 64 years of age, with no statistically significant differences between women in the younger or older categories. In all cases the coefficient for the relative impact of middle age women is statistically significant at the 1 percent level for a two-tailed t-test. A one standard deviation change in the percent of adult women in the 45 to 64 year old category explains slightly over 50 percent of a one standard deviation change in turnout rates for specifications 2 and 3, and at least 20 percent in specifications 5 and 6.

We also found that the poll tax lowered turnout. As for our findings with respect to women voting, it took some time after its removal to offset its depressing effect. In the first and fourth regressions, the poll tax is estimated to have lowered turnout by .113 and .089 *on average*, or about 24-31 percent. Indeed, all the specifications produce similar implications. This coefficient is close to the effect estimated by Heckelman (1995) for 1870-1910. Regression 3 implies that it would take 30 years before the vote suppressing impact of poll taxes is eliminated, with about 44 percent of the reduction made up immediately. A different specification in

regressions 2 and 5 estimates the lingering impact of poll taxes. POLL TAX LINGER _,T" equals 1 when a poll tax is in place, __immediatelyafter the poll tax is repealed, and declines linearly to 0 over T" years. _ is estimated to be .70 in regression 3 and .95 in the fixed effects regression; that is, immediately after the repeal of the poll tax, its impact falls by 5 to 30 percent. The estimates from the third and sixth regressions for T" suggest that it takes 20 and 30 years, respectively, for the effects of the poll tax to fully dissipate.

Let us briefly highlight our other results, which are mostly consistent with our predictions. Turnout is expected to be higher when there is more at stake. We find that a Presidential race raises turnout in Gubernatorial elections but Senate races, mandated in 1913, have no impact on turnout. The positive coefficients on RELATIVE MANUF WAGE lend some support to turnout rising with the stakes in the struggle over income distribution, which are measured by the state's position on the national income distribution.[55]

An increase in the individual's probability of affecting the outcome should cause more people to vote.[56] As predicted, the share of the gubernatorial vote going to the winner and the log of the

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[55] To capture how turnout depends on the state's position on the income distribution, the following variable was created:

RELATIVE MANUF WAGE = (STATE REAL MANUF WAGE - U.S.

REAL MANUF WAGE)/_WAGE

where U.S. REAL MANUF WAGE is an unweighted average of the state wages and _ WAGE represents the standard deviation across states in the real manufacturing wage that year. According to the theory, at low income levels, turnout could increase or decrease as we move up the income distribution. At higher income levels, the prediction is unambiguous; a rise in relative income should lead to greater turnout. We found no evidence for an initial drop in turnout as we moved up the income distribution. The positive coefficients on this variable are highly significant. Previous work by Filer, Kenny, and Morton (1993) used a similar variable and also found that those at the top of the income distribution have higher turnout rates.

[56] There is little support for this prediction in the literature. Matsusaka and Palda (1993) report in their survey that only 30 of 43 margin of victory coefficients and 9 of 21 population coefficients were negative and significant.

state's population have significant and negative impacts on voter participation.

The hypothesis that the cost of voting has a negative impact on turnout receives much more support in the regressions without fixed effects. In these, turnout increases as real manufacturing wages fall and as population density, measuring distance to the polls, rises.[57] Common measures of human capital (age, educational attainment) are hypothesized to be inversely related to the cost of correctly evaluating political information. There is strong evidence that turnout rises as the fraction over age 65 increases, but there is only very weak support for the expected negative relationship between the fraction illiterate and turnout.[58]

Voting regulations and whether one is native born also determine the probability of voting. Turnout is lower in states with a larger population who are foreign born and thus less likely to be citizens. The hypothesis that literacy tests kept some from voting is supported only in the regressions without fixed effects. We also find that the secret ballot lowered turnout, perhaps because it required some reading skills and made vote buying more difficult. The significantly negative coefficients on the SECRET BALLOT variable suggest that this provision lowered turnout by about 5.4 to 10.8 percent.[59]

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[57] We get similar income effects using the real average value per farm and a very crude measure of per capita personal income based on two sources. Since the government series on state personal income goes back only to 1929, a crude measure of per capita personal income was created by combining the government figures for 1930 and 1940 with data on 1880, 1900, and 1920 from Lee, Miller, Brained, and Easterlin (1957). Interpolated estimates for 1890 and 1910 and extrapolated estimates for 1870 were created taking into account changes in U.S. GNP over these years.

[58] Data on illiteracy, measured as an inability to write, are available only through the 1930 census. (In 1940, the Census started gathering data on educational attainment.) Illiteracy rates for 1940 were projected based on changes between 1920 and 1930.

[59] See Heckelman (1995), who graciously provided data on secret ballots for most states.

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Table 1: Changes in Voting Laws: 1870-1940

	Year Admitted as a State	Start of Secret Ballot	Start of Women's Suffrage	Poll Tax	Literacy Test
Alabama	1819	1893	1920	1901-1963	1901-
Arizona	1912	1891	1912	1891-1963	1912-
Arkansas	1836	1891	1917		
California	1850	1891	1911		1894-
Colorado	1876	1891	1893		
Connecticut	1788	1909	1920		1856-
Delaware	1787	1891	1920	-1907	1897-
Florida	1845	1895	1920	1889-1927	
Georgia	1788	1922	1920	-1945	1908-
Idaho	1890	1891	1896		
Illinois	1818	1891	1913		
Indiana	1816	1889	1919		
Iowa	1846	1892	1919		
Kansas	1861	1893	1912		
Kentucky	1792	1882	1920		
Louisiana	1812	1896	1920	1898-1934	1898-
Maine	1820	1891	1919		1892-
Maryland	1788	1892	1920		
Massachusetts	1788	1888	1920	-1891	1857-
Michigan	1837	1891	1918		
Minnesota	1858	1891	1919		
Mississippi	1817	1890	1920	1889-1963	1890-
Missouri	1821	1891	1919		

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Montana	1889	1889	1914		
Nebraska	1867	1891	1917		
Nevada	1864	1891	1914	-1910	
New Hampshire	1788	1891	1920		1902-
New Jersey	1787	1911	1920		
New Mexico	1912	1912	1920		
New York	1788	1895	1917		1921-
North Carolina	1789	1929	1920	1899-1920	1900-
North Dakota	1889	1891	1917		
Ohio	1803	1891	1919		
Oklahoma	1907	1890	1918		1912-
Oregon	1859	1891	1912		1924-
Pennsylvania	1787	1891	1920	-1933	
Rhode Island	1790	1889	1917	-1888	
South Carolina	1788	1950	1920	1895-1951	1895-
South Dakota	1889	1891	1918	1870, 1890-1951	
Tennessee	1796	1921	1919		
Texas	1845	1905	1918	1902-1963	
Utah	1896	1896	1870		
Vermont	1791	1890	1920		
Virginia	1788	1894	1920	1875-82, 1902-63	1902-
Washington	1889	1890	1910		1896-
West Virginia	1863	1891	1920		
Wisconsin	1848	1894	1919		
Wyoming	1890	1890	1869		1889-

Table 2: Sample Means and Standard Deviations for
Endogenous Variables Examining Why Women Vote So Differently

	Mean	Standard Deviation	Number of Observations
ln(Real Per Capita State Revenue)	2.87	.938	1818
ln(Real Per Capita State Expenditures)	2.82	.960	1876
ln(Real Per Capita Educational Expenditures)	1.33	1.18	1819
ln(Real Per Capita Social Service Expenditures)	.692	1.12	1791
ln(Real Per Capita Social Service Expenditures)	.692	1.12	1791
ln(Real Per Capita Transportation Expenditures)	.123	2.67	1541
ln(Real Per Capita Property Taxes)	1.52	1.37	1230
U.S. House State Delegation Voting Index (Scale -1 to 1)	.041	.348	1588
U.S. Senate State Delegation Voting Index (Scale -1 to 1)	.025	.492	1588
Prohibition	.341	.474	3074
Length of Desertion Required for Divorce (in Years)	1.84	1.1	3117
Alimony May Be Granted Pending Suit (Yes=2/Maybe=1/No=0)	.93	.44	3146
(Granted to Woman Only=1 Granted to Either Woman or Man=0)	.89	.32	2725
Permanent Alimony May Be Granted (Yes=2/Maybe=1/No=0)	1.1	.47	3146
(Granted to Woman Only=1 Granted to Either Woman or Man=0)	.80	.40	2941
First Law Implementing Maximum Hour Legislation for Women	.48	.50	3339

Table 3: Expenditure and Taxation Regressions: Additional Turnout Specification
(With the exception of the first column, absolute t-statistics in parentheses)

| | | Endogenous Variables | | | | | |
| | | Expenditures | | | | Revenues | |
	Mean (Stan. Dev.)	Total	Education	Social Services	Highways	Total	Property
Additional Turnout Due to Female Suffrage	0.096 (.111)	0.845 (2.746)	-0.082 (.182)	0.429 (1.068)	0.103 (0.123)	0.764 (2.725)	-0.789 (0.750)
Additional Turnout Due to the Elimination of the Poll Tax	-0.030 (.052)	-0.365 (0.850)	1.570 (2.449)	-1.886 (3.079)	0.967 (0.676)	0.094 (0.234)	-2.606 (1.925)
Literacy Test	0.257 (.437)	0.073 (1.417)	0.292 (3.826)	0.199 (2.571)	-0.620 (3.784)	0.219 (4.679)	-0.089 (0.471)
Secret Ballot	0.747 (.435)	-0.004 (0.073)	-0.124 (1.493)	-0.139 (1.785)	-.126 (0.750)	0.045 (0.752)	0.152 (0.771)
Motor Vehicle Registrations	0.060 (0.088)	10.23 (1.452)	. . .	. . .	18.894 (2.763)	9.31 (1.298)	. . .
Log Density	3.379 (1.53)	1.723 (3.267)	3.691 (4.808)	5.807 (7.775)	1.037 (0.601)	2.312 (4.746)	-0.880 (0.544)
Rural	0.621 (.216)	-0.926 (3.200)	2.161 (5.082)	0.585 (1.459)	-0.987 (1.102)	-0.586 (2.135)	-1.157 (1.141)
Log Population	7.063 (1.15)	-1.916 (3.616)	-3.812 (4.917)	-6.122 (8.087)	-2.242 (1.311)	-2.530 (5.165)	.216 (0.132)

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Fraction of the Pop. That Is Black	0.113 (.157)	-1.005 (1.104)	-4.672 (3.525)	-1.223 (0.988)	-17.455 (6.146)	-3.819 (4.536)	-0.538 (0.194)
Fraction of the Pop. Age 65 and Older	0.044 (.017)	-7.831 (3.379)	-4.813 (1.432)	-8.982 (2.832)	15.556 (2.200)	-8.277 (3.656)	16.095 (2.532)
Female Workers	0.279 (.102)	-1.023 (2.121)	0.786 (1.079)	0.254 (0.368)	-4.466 (3.264)	-0.533 (1.202)	-1.587 (1.331)
Manufacturing	0.113 (.089)	1.572 (2.713)	0.893 (1.057)	-1.446 (1.821)	11.919 (7.191)	1.760 (3.256)	-1.950 (1.201)
Actual Gnp/ Trend Gnp	1.015 (.060)	-1.080 (0.740)	0.473 (0.229)	-0.806 (0.418)	-3.804 (1.037)	1.865 (1.401)	-3.449 (1.262)
Fraction of the Pop. Over Age 10 That Is Illiterate	0.099 (.114)	0.559 (1.305)	-1.262 (1.960)	0.560 (0.924)	5.677 (3.897)	1.926 (4.575)	-1.484 (1.147)
Fraction of the Pop. That Is Foreign Born	0.120 (.094)	0.058 (0.112)	-0.030 (0.040)	-0.252 (6.182)	1.857 (1.092)	0.769 (1.585)	-4.136 (2.130)
Real Manuf. Wage	2322 (1338)	$-8*10^{-5}$ (1.942)	$3*10^{-6}$ (0.052)	$-3*10^{-6}$ (1.315)	$-4*10^{-4}$ (3.358)	$8*10^{-5}$ (2.132)	$8*10^{-5}$ (0.946)
Fixed State Effects Fixed Year Effects	YES YES	YES YES	YES YES	YES YES	YES YES	YES YES	YES YES
Adjusted R-Square		0.8171	0.7520	0.7596	0.8526	0.8394	0.7026
Root Mean Squared Error		0.4106	0.5875	0.5489	1.027	0.3758	0.7454
F-Statistic		68.547	45.451	46.603	72.266	77.577	24.412
Number of Observations		1876	1819	1791	1541	1818	1230

Table 4
Expenditure and Revenue Regressions: Alternative Specification

(All the Other Variables Controlled for in Table 3 are included here,
though they are not reported. Absolute t-statistics are shown in parentheses.)

Dummy Specification	Mean (Stan. Dev.)	Expenditures				Revenues	
		Total	Education	Social Services	Highways	Total	Property
Female Suffrage * Fraction of the Pop Over 21 That Is Female	0.211 (.236)	0.264 (2.319)	-0.121 (0.729)	0.1732 (1.102)	0.172 (0.555)	0.257 (2.474)	-0.171 (0.698)
Poll Tax	0.228 (.420)	-0.095 (2.129)	-0.342 (5.211)	0.124 (1.939)	-0.262 (1.725)	-0.112 (2.695)	0.285 (1.743)

Table 5: State and Local Real Per Capita Government Expenditures in 1996 Dollars[*]

State Per Capita Expenditures

	Year				Absolute increase in per capita expenditures	Percentage Increase from 1902 to 1927
	1927	1922	1913	1902		
Intergovernmental transfers to Local governments	44.8	26.5	14.8	11.9	32.9	277%
Education	16.4	13.9	8.9	3.9	12.5	322%
Highways	38.6	25.7	4.2	0.9	37.7	4120%
Welfare	3.0	3.2	2.6	2.3	0.7	32%
hospitals	11.0	8.9	7.6	6.4	4.6	72%
Health	1.8	1.7	1.0	0.9	0.9	98%
Police	0.5	0.3	0.2	0.0	0.5	N/A
Natural resources	7.1	5.2	2.3	2.1	5.0	244%
Financial administration and general control	7.2	5.9	6.2	5.2	2.0	37%
Interest on general debt	6.2	3.8	2.3	2.3	4.0	173%
Correction	4.8	5.4	4.6	3.2	1.6	51%
Other	7.1	13.4	8.5	3.4	3.6	106%
Insurance trust expenditures	5.3	4.6	0.0	0.0	5.3	N/A
Total Per Capita Expenditures	153.8	118.6	63.1	42.4	111.4	262%

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[*] Source Historical Statistics of the United States: Colonial Times to 1970.

Local Government Per Capita Expenditures

	Year				Absolute increase in per capita expenditures	Percentage Increase from 1902 to 1927
	1927	1922	1913	1902		
Education	151.6	130.9	84.9	54.3	97.2	179%
Highways	97.3	84.2	63.9	39.0	58.3	149%
Welfare	8.3	6.9	5.9	6.2	2.2	35%
Hospitals	10.0	8.1	5.2	3.4	6.6	192%
Health	3.9	3.2	3.7	3.0	0.9	32%
Police	19.8	15.8	14.3	11.4	8.3	73%
Fire Protection	15.3	13.4	12.4	9.1	6.1	67%
Sanitation	23.4	16.1	15.8	11.6	11.8	101%
Financial administration and general control	23.7	20.7	28.1	26.9	-3.2	-12%
Interest on general debt	37.6	28.6	21.6	13.2	24.4	184%
Social insurance administration	11.5	7.2	9.3	6.6	4.9	74%
Other	35.6	20.6	22.3	15.7	19.9	126%
Utilities	36.9	30.5	30.2	18.3	18.6	102%
Insurance trust expenditures	2.9	1.8	1.1	0.0	2.9	N/A
Total Per Capita Exp.	477.8	387.9	318.7	218.9	258.9	120%

Table 6
Voting by Members of the U.S. House of Representatives and the Senate:
Additional Turnout and Dummy Variable Specifications
(All the Other Variables Controlled for in Table 3 are included here,
though they are not reported. Absolute t-statistics in parentheses)

	Voting By Members of the U.S. House of Representatives	Voting By Members of the Senate
A. Additional Turnout Specification		
Additional Turnout Due to Female Suffrage	-.6305 (3.385)	-1.4514 (5.429)
Additional Turnout Due to Poll Tax	0.9974 (4.634)	1.5621 (5.023)
Literacy Test	-.0217 (0.899)	-0.0099 (0.285)
Secret Ballot	0.0583 (2.143)	0.0200 (0.510)
Fixed State Effects	YES	YES
Fixed Year Effects	YES	YES
Adjusted R-Square	0.6757	0.6614
Root Mean Squared Error	0.1982	0.2862
F-Statistic	35.44	33.289
Number of Observations	1587	1587

B. Dummy Specification

Female Suffrage * Fraction of The Pop Over 21 That Is Female	-0.251 (3.700)	-0.5230 (5.376)
Poll Tax	-0.129 (5.629)	-.2141 (6.463)
Fixed State Effects	YES	YES
Fixed Year Effects	YES	YES
Adjusted R-Square	0.6783	0.6647
Root Mean Squared Error	0.1974	0.2845
F-Statistic	35.855	33.769
Number of Observations	1587	1587

Table 7
Giving Women the Right to Vote and the Probability that a State will Support
Prohibition or Law Limiting Hours of Employment in Manufacturing for Adult Women

(Estimates are made using probit estimation procedures. All the Other Variables Controlled for in Table 3 are
included here, though they are not reported. Chi Square statistics are in parentheses)

	Prohibition Legislation Yes = 1 / No = 0	First Law Implementing Maximum Hours Legislation Yes = 1 / No = 0
A. Additional Turnout Specification		
Additional Turnout Due to Female Suffrage	140.25 (90.37)	-0.5976 (0.063)
Additional Turnout Due to Poll Tax	-192.01 (73.75)	22.796 (20.37)
Literacy Test	0.184 (0.228)	-0.560 (0.614)
Secret Ballot	0.013 (0.0017)	-0.4239 (1.254)
Fixed State Effects	YES	YES
Year Trend and Trend Squared	YES	YES
Log Likelihood for Normal Number of Observations	-285.61 2379	-199.18 3339

<u>B. Dummy Specification</u>

Female Suffrage * Fraction of the Pop Over 21 That Is Female	8.5341 (29.56)	-0.0947 (0.0108)
Poll Tax	0.7163 (0.932)	-2.432 (18.4853)
Fixed State Effects	YES	YES
Year Trend and Trend Squared	YES	YES
Log Likelihood for Normal	-357.22	-198.88
Number of Observations	2379	3339

Table 8
Divorce Laws:
Length of desertion in years before divorce is allowed, whether alimony is granted pending suit and whether it is just the woman or the man and the woman who may receive it, and whether permanent alimony is granted and whether it is just the woman or the man and the woman who may receive it

(All the Other Variables Controlled for in Table 3 are included here, though they are not reported. Absolute t-statistics are shown in parentheses. While these estimates use Ordinary Least Squares, when attempts were made to use probits with the fixed effects we were not able to get the procedures to converge.)

	Length of Desertion Required for Divorce in Yrs.	Alimony May Be Granted Pending Suit		Permanent Alimony May Be Granted	
		Shall (2) / May (1) / No(0)	Granted to Women (1) or Women & Men (0)	Shall (2) / May (1) / No(0)	Granted to Women (1) or Women & Men (0)
A. Additional Turnout Specification					
Additional Turnout Due to Female Suffrage	.5342 (2.591)	-.4095 (3.711)	.1243 (1.411)	.0786 (1.162)	.2290 (2.912)
Additional Turnout Due to Poll Tax	.2540 (1.017)	-.3416 (2.549)	.2092 (1.787)	.0015 (0.019)	.1680 (1.770)
Literacy Test	-.0899 (3.294)	-.0858 (5.855)	-.0553 (-4.250)	.011 (1.260)	0.0241 (2.353)
Secret Ballot	.1240 (3.991)	-.0102 (0.601)	0.0110 (0.712)	-.0195 (1.886)	-.0074 (0.563)

Fixed State Effects	YES	YES	YES	YES	YES
Fixed Year Effects	YES	YES	YES	YES	YES
Adjusted R-Square	.9134	.8482	0.8216	.9488	.9156
Root Mean Squared Error	.3217	.1727	0.1345	.1058	.1167
F-Statistic Number of Observations	253.81	135.1	988.23	445.90	248.31
	3116	3145	2724	3146	2940
B. Dummy Specification					
Female Suffrage * Fraction of the Pop Over 21 That Is Female	.1244	-.1217	.0423	.0326	.1554
	(1.640)	(3.000)	(1.311)	(1.317)	(5.562)
Poll Tax	-.0395	.0317	-0.0199	-.0395	-.0106
	(1.485)	(2.217)	(1.630)	(4.537)	(1.018)
Fixed State Effects	YES	YES	YES	YES	YES
Fixed Year Effects	YES	YES	YES	YES	YES
Adjusted R-Square	.9133	.8479	0.8215	.9492	.9162
Root Mean Squared Error	.3218	.1729	0.1345	.1055	.1163
F-Statistic	253.5	134.82	98.198	449.17	250.26
Number of Observations	3116	3145	2724	3146	2940

Table 9: Do States that Adopted These Laws Voluntarily Differ from
Those that Had Them Imposed upon Them by the 19th Amendment?
(All the other variables controlled for in Table 3 are included here,
though they are not reported. Absolute t-statistics in parentheses)

	Endogenous Variables			
	House Voting	Senate Voting	Total State Revenue	Total State Expenditures
A. Additional Turnout Specification				
Additional Turnout Due to Female Suffrage Adopted Voluntarily	-0.6574 (3.472)	-1.577 (5.814)	0.3965 (1.736)	0.514789 (1.632)
Additional Turnout Due to Female Suffrage Adopted under 19th	-.5383 (2.452)	-1.0203 (3.238)	1.7636 (5.147)	1.7581 (4.720)
Additional Turnout Due to Poll Tax	.9814 (4.539)	1.4898 (4.779)	-.0806 (0.201)	-.4541 (1.059)
Literacy Test	-.0228 (0.943)	-.01555 (.444)	.1943 (4.148)	.0505 (0.986)
Secret Ballot	0.0561 (2.048)	.0093 (.236)	.02133 (0.345)	-.0344 (0.600)
Fixed State Effects	YES	YES	YES	YES
Fixed Year Effects	YES	YES	YES	YES
Adjusted R-Square	.6756	.6627	.8416	.8189
Root Mean Squared Error	.1982	.2857	.3732	.40859

F-Statistic	35.076	33.138	78.252	68.827
Number Of Observations	1587	1587	1817	1875
B. Dummy Specification				
Female Suffrage * Fraction of the Pop Over 21 That Is Female Adopted Suffrage Voluntarily	-.252 (3.646)	-.557 (5.625)	0.1215 (1.681)	0.1421 (1.611)
Female Suffrage * Fraction of the Pop Over 21 That Is Female Adopted Suffrage Under 19th	-.2466 (2.845)	-.3824 (3.068)	.7135 (5.129)	0.6686 (4.457)
Poll Tax	-.129 (5.541)	-.2047 (6.109)	-.082 (1.969)	-.0743 (1.655)
Fixed State Effects	YES	YES	YES	YES
Fixed Year Effects	YES	YES	YES	YES
Adjusted R-Square	.6781	.6652	.8421	.8189
Root Mean Squared Error	.1975	.2846	.3727	.4086
F-Statistic	35.461	33.51	78.51	68.835
Number Of Observations	1587	1587	1817	1875

Table 10
Sample Means and Standard Deviations for Data Examining Why Women Vote So Differently

	Mean	Standard Dev.	Number of Obs.
Percent of State and Local Government Employees Who are Women	.435	.035	392
Gender Gap in Gubernatorial Races where the gap is: (Percent of the Female Vote for the Democrat - Percent of the Female Vote for the Republican) - (Percent of the Male Vote for the Democrat - Percent of the Male Vote for the Republican)	9.7	9.6	92
Gender Gap in Senate Races	11.1	9.2	139
Gender Gap in Presidential Races	11.7	8.9	126
Gender of Democrat Gubernatorial Candidate (Male =1, Female = 0)	.84	.37	92
Gender of Republican Gubernatorial Candidate (Male =1, Female = 0)	.90	.30	92
Single Mothers Raising Children Divided by the Number of Married Couples with Children (U.S. Census Department) — 1990 only	.257	.127	51
Percent of Population Without Health Insurance (U.S. Census Department) — 1994 only	13.8	3.72	51
Unemployment Rate (Statistical Abstract)			
— 1990 only	5.36	1.12	50
— 1994 only	5.63	1.2	50
Real Per Capita Income in 1983 dollars (Statistical Abstract)			
— 1990 only	13,675	2,258	51
— 1994 only	14,244	2,071	50

Table 11
Do Women Vote Differently Because of Higher Possible Employment Rates By Government?
(The numbers reported in parentheses are absolute t-statistics)

	Endogenous Variable: Gender Gap in Gubernatorial Races (Percent of the Female Vote for the Democrat - Percent of the Female Vote for the Republican) - (Percent of the Male Vote for the Democrat - Percent of the Male Vote for the Republican)				
	(1)	(2)	(3)	(4)	(5)
Percent of State and Local Government Employees Who are Women	52.2 (0.529)	41.4 (1.250)	-916.36 (2.566)	65.54 (1.477)	65.3 (0.533)
Gender Gap in Senate Races	.668 (3.448)	.6106 (5.685)	. . .	. . .	. . .
Gender Gap in Presidential Races	. . .	. . .	1.21 (4.317)	.176 (1.122)	. . .
Gender of Democrat Gubernatorial Candidate (Male =1, Female = 0)	-17.66 (3.743)	-13.3 (4.772)	-30.9 (4.992)	-5.78 (1.722)	-6.81 (1.355)
Gender of Republican Gubernatorial Candidate (Male =1, Female = 0)	2.77 (0.595)	-2.8 (0.628)	11.1 (3.610)	2.99 (0.878)	1.003 (0.216)
Fixed State Effects	YES	NO	YES	NO	YES
Fixed Year Effects	YES	NO	YES	NO	YES
Adjusted R-Square	.8001	.4649	.9110	.2771	.3590
F-Statistic	5.75	12.08	11.92	2.53	1.92
Number Of Observations	52	52	17	17	80

Table 12: Do Women Vote Differently Because of They Must Raise Children on Their Own?
(These estimates use purely cross-sectional data for 1990. Absolute t-statistics are shown in parentheses.)

	Endogenous Variable: Gender Gap in Different Types of Races (Percent of the Female Vote for the Democrat - Percent of the Female Vote for the Republican) - (Percent of the Male Vote for the Democrat - Percent of the Male Vote for the Republican)			
	Gubernatorial Races		Senate Races	
	(1)	(2)	(3)	(4)
Single Mothers Raising Children Divided by the Number of with Children Married Couples	91.2 (2.284)	72.6 (1.690)	51.4 (1.074)	16.02 (0.328)
Gender of Democrat Candidate in Race (Male =1, Female = 0)	-16.3 (3.329)	-15.9 (3.162)	8.2 (0.875)	10.14 (1.167)
Gender of Republican Candidate in Race (Male =1, Female = 0)	5.9 (0.860)	4.9 (0.68)	9.6 (1.94)	14.95 (2.764)
Unemployment Rate	. . .	1.14 (0.583)	. . .	2.41 (1.74)
Per Capita Income	. . .	.0006 (0.724)	. . .	.0019 (1.896)
Adjusted R-Square	.3115	.2803	.1182	.2536
F-Statistic	5.98	3.57	2.16	2.77
Number Of Observations	34	34	27	27

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Table 13
General Election Exit Polls Means and Standard Deviations for Reported Variables

	1988 General Election Exit Poll			1996 General Election Exit Poll		
	Mean	Standard Deviation	Observations	Mean	Standard Deviation	Observations
Ideology	2.11	.72	31,913	2.099	.717	15,205
Vote for Democrat for President	.47	.50	34,245	.51	.50	16,637
Vote for Republican for President	.48	.50	34,245	.37	.48	16,637
Identify Self as Democrat	.38	.49	34,245	.39	.488	16,637
Identify Self as Republican	.31	.46	34,245	.30	.46	16,637
Abortion Matters the Most * Democrat Party Dummy	.03	.17	34,245			
Abortion Matters the Most * Republican Party Dummy	.03	.16	34,245			
Abortion (Legal, Mostly Legal, Mostly Illegal, Illegal)				2.22	.97	3,822
Taxes Matter the Most * Democrat	.05	.21	34,245			
Taxes Matter the Most * Republican	.06	.23	34,245	.03	.17	16,637

Helping the Economy and Jobs Matters the Most * Democrat	.10	.29	34,245	.052	.22	16,637
Helping the Middle Class Matters the Most * Democrat	.14	.35	34,245			
Education Matters the Most * Democrat	.10	.29	34,245	.04	.19	16,637
Voted for Candidate Primarily because he cares about Poor People	.15	.36	34,245			
Single Woman with Children	.03	.18	34,245	.034	.18	16,637
Single Woman w/out Children	.16	.37	34,245	.097	.30	16,637
Married Woman w/out Children	.19	.39	34,245	.11	.31	16,637
Married Woman with Children	.14	.35	34,245	.11	.30	16,637
Single Man with Children	.02	.14	34,245	.02	.13	16,637
Single Man w/out Children	.13	.34	34,245	.08	.27	16,637
Married Man w/out Children	.19	.39	34,245	.10	.31	16,637
Married Man with Children	.13	.34	34,245	.11	.30	16,637

Table 14
The Effect of Martial Status and the Presence of Children on People's Ideology, Voting, and Party Identification

(The missing category is married men without children, so all the categories are interpreted as deviations from what that group believes. While not reported each regression controls for income, type of employment, education, religion, age, race, sex, how urban or rural was the area they lived in, whether they and/or anyone in their family were union members, as well as what state they lived in. The regressions for 1988 also control for the type of employment. Absolute t-statistics and Chi-square values are shown in parentheses.)

	Ideology*		Presidential Vote†			Self Identified Democrat		Self Identified Republican		Taxes§		Education#	Poverty**	
	1988	1996	Dukakis 1988	Clinton 1996	Dole 1996	1988	1996	1988	1996	Dem. 1988	Rep. 1988	Rep. 1996	1996	1988
Single Woman with Children	-.22 (8.798)	-.12 (1.985)	.76 (9.437)	.92 (4.362)	-1.04 (-4.217)	.46 (5.996)	.55 (2.820)	-.66 (7.003)	-.82 (3.313)	.32 (2.181)	-.58 (3.076)	-1.02 (2.041)	.68 (2.082)	.54 (5.920)
Single Woman w/out Children	-.20 (13.14)	-.12 (2.816)	.50 (10.67)	.65 (4.681)	-.48 (3.253)	.31 (6.723)	.39 (2.856)	-.23 (4.611)	-.26 (1.686)	.22 (2.195)	-.25 (2.737)	-.73 (2.857)	.46 (1.753)	.21 (3.375)
Married Woman w/out Children	-.12 (8.837)	-.09 (2.219)	.38 (9.125)	.40 (3.135)	-.22 (1.691)	.25 (5.123)	.30 (2.332)	-.12 (2.828)	-.17 (1.256)	.29 (2.545)	-.16 (2.048)	-.56 (1.992)	.42 (1.637)	.36 (6.360)
Married Woman with Children	-.11 (6.665)	-.08 (1.859)	.34 (6.837)	.32 (2.356)	-.23 (1.634)	.24 (5.621)	.26 (1.923)	-.18 (3.497)	-.16 (1.098)	.20 (2.101)	-.25 (2.565)	-.41 (1.778)	.41 (1.618)	.28 (4.029)
Single Man with Children	-.05 (1.692)	-.08 (1.017)	.20 (2.137)	-.005 (0.018)	-.05 (0.171)	.03 (0.351)	.28 (1.097)	-.25 (2.315)	-.15 (0.511)	-.07 (0.345)	-.14 (0.691)	-.14 (0.299)	.71 (1.845)	.19 (1.569)
Single Man w/out Children	-.06 (1.991)	.005 (0.112)	.09 (1.858)	-.014 (0.094)	-.09 (0.593)	-.07 (1.305)	-.16 (1.051)	-.0007 (0.013)	-.08 (0.518)	-.16 (1.286)	-.14 (1.821)	-.16 (0.952)	-.35 (1.075)	.09 (1.393)

Married Man with Children	.02 (1.392)	.156 (3.636)	-.12 (2.501)	-.32 (2.354)	.34 (2.438)	-.13 (2.710)	-.21 (1.521)	.07 (1.557)	.25 (1.722)	-.15 (1.249)	-.05 (0.625)	.09 (0.380)	-.07 (0.253)	.13 (1.88)
State Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Log Likelihood =			-18374	-2014.7	-1874	-18179	-2029.4	-17020	-1796	-5062.7	-6602	-1693	-758.7	-11721
adj-R^2	.0965	.1169												
Number of Observation	28,768	3341	29,453	3,385	3,385	29,453	3,385	29,453	3,385	29,453	29,453	3,365	3,365	29,453
Chi-square			4042	661.4	713.5	3171.8	538.4	3144	600.6	859.4	453.5	385.5	209.4	1206.6
F-statistic	48.28	6.53												

* (Liberal=1, Moderate=2, and Conservative=3)

† (Only Dukakis is reported for 1988 because there were no significant third party candidates).

§ (Endogenous variable is Party Dummy * Taxes Matter the Most. Only nine-tenths of one percent of the respondents were Democrats who listed taxes as their greatest concern in 1996. Because of this the regressions were unable to distinguish between the different categories of women and men.

(Endog. variable is Democrat Dummy * Education Matters the Most)

** Did the factor that "He Cares About Poor People" Matter Most in Deciding How One Voted (Yes=1, No=0)

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Table A.1
Voter Turnout Regressions
(Absolute t-statistics in parentheses, N=1215)

	Mean (Std. Dev.)	(1)	(2)	(3)	(4)	(5)	(6)
Female Suffrage * Fraction of the Pop Over 21 That Is Female	0.183 (.232)	0.458 (10.08)	. . .	. . .	0.298 (6.83)	. . .	. . .
Female Suffrage * Initial Fraction of The Population Over 21 That Is Female	0.173 (.223)	. . .	0.292 (7.11)	0.368 (9.27)	. . .	0.287 (5.798)	0.381 (8.71)
Female Suffrage: 0-T Yrs * Fraction of The Pop Over 21 That Is Female	1.443 (2.07)	. . .	0.0195 (6.772)	. . .	. . .	0.027 (4.419)	. . .
Female Suffrage: T + Yrs * Fraction of The Pop Over 21 That Is Female	1.207 (3.34)	. . .	0.0065 (7.58)	. . .	. . .	0.0060 (3.679)	. . .
Female Suffrage Years After Passage * Fraction of The Population Over 21 That Is Female	2.649 (4.82)	. . .	. . .	0.011 (7.35)	. . .	. . .	0.00683 (3.102)
Female Suffrage Years After Passage Squared * Fraction of The Pop Over 21 That Is Female	30.22 (96.1)	. . .	. . .	$-1*10^{-4}$ (1.694)	. . .	. . .	$1*10^{-5}$ (0.193)
Poll Tax	0.195 (.396)	-0.113 (15.5)	. . .	-.109 (15.6)	-.089 (11.4)	. . .	-0.117 (10.123)
Dummy For After Poll Tax Is Removed	0.066 (.248)	. . .	. . .	-.0615 (2.868)	. . .	. . .	-0.091 (4.412)

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Poll Tax Linger: _,T	. . .	. . .	-.113 (16.3)	. . .	. . .	-0.127 (13.71)	. . .
Poll Tax Years After Removed	1.394 (6.436)	. . .	. . .	0.0038 (1.809)	. . .	. . .	0.0023 (1.437)
Poll Tax Years After Removed Squared	43.335 (248.2)	. . .	. . .	$1*10^{-5}$ (0.24)	. . .	. . .	.000047 (1.476)
Dummy Variable For A Literacy Test	0.239 (.426)	-0.040 (6.462)	-0.037 (6.07)	-0.035 (5.771)	0.0034 (0.420)	0.010 (1.29)	0.0144 (1.806)
Dummy Variable For A Secret Ballot	0.681 (.466)	-0.040 (6.13)	-0.029 (4.72)	-0.033 (5.32)	-.030 (3.49)	-.021 (2.57)	-.020 (2.448)
Dummy Variable For A Presidential Election	0.470 (.499)	0.072 (15.9)	0.069 (16.5)	0.069 (16.5)	0.047 (5.05)	0.046 (5.13)	0.050 (5.54)
Dummy Variable For A Senate Election	0.297 (.457)	-0.0043 (0.68)	-0.0019 (0.32)	-0.0037 (0.62)	$-5*10^{-4}$ (0.10)	.0009 (0.18)	0.00025 (0.049)
Winning Governor Vote Share	0.582 (.137)	-0.410 (16.7)	-0.410 (17.8)	-0.401 (17.48)	-.306 (13.8)	-.293 (13.52)	-.293 (13.6)
Log Population	7.070 (1.03)	-0.0060 (1.925)	-0.0095 (3.209)	-0.0056 (1.815)	-.205 (2.41)	-.139 (1.646)	-.099 (1.176)
Fraction of The Pop. Age 65 And Older	0.045 (.019)	1.549 (8.11)	1.11 (6.065)	1.210 (6.573)	-.364 (1.013)	-.455 (1.292)	-.583 (1.646)
Fraction of The Pop. Over Age 10 That Are Illiterate	0.097 (.117)	-0.055 (1.439)	-0.0039 (0.11)	0.0062 (0.172)	0.433 (8.57)	.286 (5.396)	.2929 (5.310)
Relative Manuf Wage	-0.068 (.905)	0.054 (11.3)	0.056 (12.4)	0.055 (12.1)	0.020 (2.65)	.019 (2.512)	.0206 (2.800)

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Real Manuf Wage	2096.3 (1189)	$-7*10^{-6}$ (2.710)	$-7*10^{-6}$ (2.81)	$-3*10^{-6}$ (1.315)	$-8*10^{-6}$ (0.72)	$-7*10^{-6}$ (0.666)	$-1*10^{-5}$ (1.013)
Female Workers	0.283 (.114)	0.032 (0.842)	0.023 (0.63)	0.012 (0.340)	0.461 (7.57)	.497 (8.47)	.521 (8.752)
Female Workers * Female Suffrage	0.113 (.150)	-0.187 (2.794)	-0.146 (2.49)	-0.219 (3.66)	-.070 (1.15)	-.132 (2.172)	-.201 (3.314)
Rural	0.633 (.221)	-0.269 (4.143)	-0.15 (2.416)	-0.0039 (0.06)	0.154 (1.77)	.121 (1.422)	0.119 (1.411)
Rural^2	0.449 (.250)	0.286 (5.458)	0.23 (4.70)	0.122 (2.265)	0.109 (1.61)	0.104 (1.595)	0.059 (0.899)
Log Density	3.427 (1.43)	-0.0049 (1.290)	0.007 (1.886)	0.0062 (1.687)	0.198 (2.288)	0.125 (1.435)	0.081 (0.941)
Fraction of the Pop. That Is Foreign Born	0.134 (.099)	-0.380 (9.10)	-0.268 (6.559)	-0.252 (6.182)	-.482 (7.47)	-.509 (8.11)	-.489 (7.798)
Intercept		0.670 (15.5)	0.596 (14.8)	0.51 (11.79)	1.10 (2.81)	1.06 (2.659)	.99 (2.50)
Fixed State Effects		NO	NO	NO	YES	YES	YES
Fixed Year Effects		NO	NO	NO	YES	YES	YES
Adjusted R-Square		0.7769	0.8040	.8070	.8871	.8933	.8953
Root Mean Squared Error		0.0771	0.0723	.0718	.0549	.0534	.0529
F-Statistic		235.88	250.1	221.69	96.406	100.7	99.83