

# Supporting Information For “Revisiting a Natural Experiment: Do Legislators With Daughters Vote More Liberally on Women’s Issues?”

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January 30, 2023

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## **SI 1 Overview of the Literature on Daughter Effects**

Table SI 1.1: Literature Review

Study	Time frame	Subjects	Key findings (as described by the authors)	Subgroups	DVs tested	Concerns
Warner (1991)	1988–1999	Toronto and Detroit	Offspring sex does not affect American men's views on gender, but American men and women and Canadian women with only female children hold significantly more feminist views than those with only male children. Canadian men and women with only female children are not significantly more feminist than those with female and male children but American women with only female children are significantly more feminist than those with female and male children.	men/women, Canada/US	Feminist orientation (six survey items taken from Carroll (1985))	Specification: compares any daughter(s)/any son(s) to no children; analysis of US women: combines sons only and both sons and daughters as new variable (= any male children); inclusion of non-biological offspring: ambiguous; Post-treat: controls for ideology
Katzev, Warner and Acock (1994)	1987–1988	US	Mothers of only boys are more likely to believe in a more nontraditional family ideology than mothers of only girls or mothers with children of both sexes. But mothers of boys and girls are similar to those with only girls.	fathers/mothers	Marital instability (likelihood of separation, nontraditional family ideology, perceptions of equity, time with children, time in housework)	Specification: no measure of proportion of daughters; inclusion of non-biological offspring: yes (but controls for presence of adopted/step-children) Post-treat: controls for non-traditional family ideology
Downey, Jackson and Powell (1994)	1990	Indiana mothers	Mothers with more sons than daughters (or with a larger proportion of sons) have more negative views regarding maternal employment and voice greater concern over the need for obedience by children.		Level of agreement with the following statements: 'Children always suffer when both parents work outside the home' and 'The most important thing for children to learn is to obey'	Specification: inclusion of non-biological offspring: ambiguous
Warner and Steel (1999)	1997–1998	Oregon and Washington	Parents of only daughters support feminist policies more than parents of only sons or parents with no children. The effect is larger for fathers than for mothers. For both women and men, the highest levels of support come from those with daughters only, whereas the lowest levels come from those with sons only. However, for women, the significant comparison is for daughters only compared to other categories. Men who have no children or have both sons and daughters hold similar opinions about gender equity public policies.	men/women	Support for gender equity policies	Specification: no measure of proportion of daughters; inclusion of non-biological offspring: ambiguous; post-treat: controls for gender role attitudes, political ideology
Washington (2008)	1997–2005	US Representatives	Each daughter increases a congressperson's propensity to vote liberally on women's issues by about two points, which is about 25 percent of the size of the own gender "effect."	men/women, Democrats/Republicans	NOW, AAUW, and NRIC scores	Inclusion of non-biological offspring: yes; post-treat: controls for Representatives' partisan affiliation
Oswald and Powdthavee (2010)	1991–2005	British and German adults	For each daughter, holding family size constant, a parent is approximately two percentage points more likely to vote left.	men/women	Partisan identification, attitudes on traditional gender roles	Inclusion of non-biological children: in some analyses
Prokos, Baird and Keene (2010)	2000, 2002, 2004, and 2006	US employed population	Mothers with only daughters are more likely to support affirmative action for women than mothers with only sons or children of either gender. The reverse is true for fathers—fathers with only daughters are less likely to support affirmative action for women than commensurate groups. Women and men with no children, a child of each gender, and sons only are equally likely to support gender-based affirmative action policies.	men/women	Support for gender-based affirmative action (special efforts to hire and promote women)	Specification: no measure of proportion of daughters, uses categorical specification without controlling for no. of children; inclusion of nonbiological offspring: yes; post-treat: controls for traditional gender role attitudes, belief that discrimination does not exist, conservative political views

Shafer and Malhotra (2011)	1979, 1982, 1987 and 2004	US adults	Having a daughter reduces support for traditional gender roles among men, but the effect size is small—.1 sd. Among women, there is no effect of having a daughter—.04 sd.	fathers/mothers	Support for traditional gender roles, within-subject attitudinal shifts (longitudinal data)	Inclusion of non-biological offspring: yes
Iacus, King and Porro (2011)	1997–2005	US Representatives	Replication of Washington (2008).	Apart from use of matching, same design as Washington (2008)		
Conley and Rauscher (2013)	1994	US adults	An increase in the number of girls from none to one translates on average into a 9% increase in the proportion of gender-related cases in which a judge will vote in a feminist direction. Having at least one daughter corresponds to a 7% increase in the proportion of cases in which a judge will vote in a feminist direction. Effect for Republican judges is an average 7% increase, which is significant. Effect for Democrat judges is on average 4	men/women, low/high social economic status	Traditional views of women, partisan affiliation, pro-abortion index, attitudes on teen sex	Inclusion of non-biological offspring: ambiguous Other data concerns: small sample size
Glynn and Sen (2015)	1996–2002	US Courts of Appeals judges	An increase in the number of girls from none to one translates on average into a 9	men/women, Democrat/Republican, judges with 1-4 children, judges with 1 child	Case-level Judge-vote in feminist direction (gender-related cases) Case-level Judge-vote in liberal direction (all cases)	Post-treat: controls for judges' partisan affiliation
Lee and Conley (2016)	1972–2012 (US)/2002–2012 (EU)	US/European adults	In the UK, if parents have a girl for their first child, they are more likely to lean toward the Conservative Party, though the effects are insignificant. In the US, first daughter has a significant conservative effect in 1994 and significant liberal effect in 2002 and 2004. Authors conclude null effects of the sex of the first child on party identification as well as on political ideology while ruling out country heterogeneity.	over time, by country (Table 2 restricts focus to US and UK)	Partisan affiliation, political ideology	inclusion of non-biological offspring: yes.
Sun and Lai (2017)	2012–2013	Chinese parents	Having sons causes mothers to develop significantly more traditional gender ideologies than fathers (but the effect of having sons on traditional gender ideology among all parents is statistically insignificant). Compared with parents who had only daughters, parents who had only sons or had both sons and daughters did not show significant difference in gender ideology. Mothers with both sons and daughters had more traditional gender ideologies than mothers with only daughters. In 2012 sample, the interaction term of motherhood and having only sons showed a significant positive correlation with traditional gender ideology.	fathers/mothers	Gender ideology (level of agreement with five statements)	Specification: no measure of proportion of daughters; inclusion of non-biological offspring: yes; post-treat: controls for Communist party membership
Yu and Kuo (2018)	2007, 2009, 2011	Japanese adults	Japanese men adopted a less traditional view, acknowledging that having children hinders a couple's life, upon the arrival of a son, but not a daughter. Having an additional son is equally likely as having an additional daughter to be associated with lowered support for the notion that maternal employment is harmful for young children among Japanese women and men. Adding a daughter (but not a son) reduces Japanese women's disapproval of divorce.	men/women	Attitudes towards gender and family issues (including traditional gender division of labor) and within-subject attitudinal shifts	Inclusion of non-biological offspring: ambiguous (unclear whether JLPS dataset includes non-biological children)
Sharrow et al. (2018)	2016	US parents	Having a daughter first positively influences attitudes toward sex-equity policies among fathers but not among mothers. But neither the experience of having a daughter in general nor the proportion of daughters a man fathers affects support for gender-equity policies.	men/women, for fathers: Democrat/Republican, age of entry into fatherhood	Support for gender-equality policies, support for liberal policies among fathers (specification: sex of first child)	Specification: entropy balancing model (Table 2) uses 'has daughter' specification without controlling for no. of children; inclusion of nonbiological offspring: yes; post-treat: controls for partisan affiliation, ideology, gender-equality attitudes scale, hostile sexism scale; small sample size

Greenlee et al. (2020)	2016	US fathers (no more than 5 children)	Men whose first child is a girl, when compared to men whose first child was a boy, were (1) more likely to vote for Clinton on Election Day and (2) more likely to support a fictional congressional candidate when the candidate makes an appeal touting the importance of her candidacy for women and girls. Having a daughter as a first child did not influence mothers' voting patterns.		Pre-election Clinton preference (vs all other candidates), vote for Clinton in 2016, vote for Obama in 2012 (placebo), support for fictional female Congressional candidate	Specification: Models use 'has daughter' specification without controlling for no. of children; inclusion of non-biological offspring: yes; post-treat: controls for partisan affiliation, ideology, support for gender equity Other data concerns: small sample size
Perales, Jarallah and Baxter (2018)	2001, 2005, 2008, 2011, 2015	Australian adults	Among men, having a firstborn daughter is associated with a significantly larger increase in support for traditional gender-role attitudes than having a firstborn son. For women, there are no statistically significant differences. For female and male parents of firstborn daughters as well as for male parents of firstborn sons, the number of years after the birth of the firstborn child is not statistically related to gender-role attitudes. For female parents of firstborn sons, however, the model suggests a trend toward less traditional gender attitudes over time.	fathers/mothers	Gender-role attitudes (level of agreement with 7 statements)	Inclusion of non-biological offspring: ambiguous
Clayton, Kadt and Dumas (2022)	2004–2012	South African citizens	The effect of sex of first child on attitudes towards preferential hiring of women; views on abortion, gender equality, support for ANC is generally indistinguishable from zero except that respondents whose first child is a son are slightly more progressive.		Attitudes towards preferential hiring of women, views on abortion in two cases (low income/birth defect), gender equality battery, partisan support for the dominant political party (the center-left ANC)	Inclusion of non-biological offspring: yes
Costa et al. (2019)	2007–2016	US Representatives	Cannot reject the null hypothesis that having a daughter has no effect on support for women's issues among fathers or mothers in Congress.	Democrat/Republican	AAUW scores, cosponsorships (on bills with female sponsor vs male sponsor)	Specification: Alternative models are presented in the SI, but the results in the main text include non-biological offspring and an MC's partisan affiliation (and interaction of 'has daughter' with party ID); cosponsorship table controls for Republican x Republican bill sponsor interaction effect
Borrell-Porta, Costa-Font and Philipp (2019)	1991–2012	UK parents	Results suggest that having daughters is associated with lower levels of support for traditional gender norms among men. For women, the association is ambiguous. Among men, the size of the coefficient is approximately halved when accounting for time-invariant unobserved heterogeneity.	men/women	Attitudes towards traditional gender norms (including traditional gender division of labor and within-subject attitudinal shifts), for fathers: household gender division of labor	Specification: no measure of proportion of daughters; inclusion of non-biological offspring: yes

Van Effenterre (2020)	1997–1999 (US Congressmen), 1974 (French Congressmen), 2014 (European men), 2006 (American men)	US and French male legislators, US and French men	Among right-wing French male politicians, having one additional daughter leads to an 8 percentage points decrease in the probability of voting in favor of abortion law. In contrast, there is no evidence of an impact of the presence of daughters on the left-wing congressmen's vote. Among US Democratic MCs, the average propensity to vote left increases by more than 7 percentage points with each female child. The point estimate is negative and not significant for Republican congressmen. Among men in the US general population, one additional daughter is associated with more pro-abortion views for liberal respondents, while there are no significant effect for conservative respondents.	Democrat/Republican (for French legislators: Left/Right), liberal/conservative	French legislators DV: roll call votes on 1974 abortion law US legislators DV: roll call votes on teen access to abortion Citizens: attitudes toward abortion rights US citizens: opposition to laws that prohibit abortion if they were in the situation of voting in Congress	Inclusion of non-biological offspring: yes
Pope and Schmidt (2021)	1787	Members of the Constitutional Convention	Each additional son is associated with a delegate being about 8 percent more likely to cast a pro-national ballot on any of the eight measures included in the index. In contrast, each additional daughter is associated with a 5.5 percent drop in probability of casting a pro-national ballot.		Convention votes that express delegate desires to strengthen or weaken the national government, whether delegates signed the Constitution (non-signers = anti-federalists)	Data concerns: small sample size
Wesley and Garand (2021)	2016	US adults	Having sons depresses the probability that individuals will identify as a feminist or strong feminist. But no effect of having daughters only or having both sons and daughters on feminist self-identity (no discernible differences in feminist self-identity for individuals with daughters only, both sons and daughters, and no children). Having only sons increases support for traditional gender roles for both men and women. Having daughters does not increase the probability that men or women perceive it important to elect more women. Women with sons only are less likely to perceive that it is important to elect women representatives, but this effect is not observed for men.	men/women	Feminist self-identification, attitudes toward women in elected office, attitudes toward traditional gender roles	Specification: compares any daughter(s)/any son(s) to no children, which is not design-based; no measure of proportion of daughters, uses categorical specification without controlling for no. of children; inclusion of nonbiological offspring: yes; post-treat: controls for partisan identification, ideological self-identification, policy ideology scale, moral traditionalism scale, equality scale

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## SI 2 Differences Between the Empirical Strategies of Costa et al. (2019) and Washington (2008)

The main differences between the primary regression specifications used by [Costa et al. \(2019\)](#) and [Washington \(2008\)](#) are as follows:

- Number of children as a regressor. [Washington \(2008\)](#) uses fixed effects for the number of children while [Costa et al. \(2019\)](#) control for the number linearly.
- Dummy vs. Number of Daughters. In the main text, [Costa et al. \(2019\)](#) use a ‘has daughter’ dummy which takes the value 1 when the Member of Congress has 1 or more daughters. [Washington \(2008\)](#) uses the number of daughters as the ‘treatment’ variable. In the SI, however, [Costa et al. \(2019\)](#) present results from alternate conceptualizations of independent variables including the number of daughters and the proportion of daughters.
- Including Childless Members of Congress. [Washington \(2008\)](#) includes childless Members of Congress in the main specification while [Costa et al. \(2019\)](#) do not. It should be noted that childless MCs are not used to estimate the causal effects of daughters in Washington’s model, so this point is inconsequential.
- Controls for religion, service length age, service length, race, democratic vote share in the district. [Washington \(2008\)](#) controls for these covariates while [Costa et al. \(2019\)](#) do not.

Another difference in methodology has to do with the AAUW ratings during these authors’ respective periods. As [Costa et al. \(p.477\)](#) explain:

Note that the AAUW altered their method for scoring members of Congress after the 110th Congress. For the 110th, each legislator’s rating is the percentage of the priority pieces of legislation on which the legislator voted in line with AAUW’s position. After the 110th, the scores also take into account cosponsorship for some bills. Specifically, the rating is the percentage of the priority pieces of legislation on which the legislator voted in line with AAUW’s position or cosponsored a bill that AAUW supports. Votes and cosponsorship are given the same weight in the voting record. Note that for this reason, even though AAUW has continued to call their score sheet a “voting record” for consistency’s sake, our test can be interpreted as estimating the effect of having daughters on overall support for women’s issues, as for all but one of the Congressional sessions this includes both roll call votes and cosponsorship.

As noted in the text, this change in scoring appears to be inconsequential. When we recalculate the AAUW ratings so as to exclude cosponsorships, the estimated daughters effect is substantively unchanged.

Outside of these differences that relate to the analysis of the main dependent variable of interest—support for women’s issues—that we analyze in the paper, Costa et al. also analyze the effect of having a daughter on male MCs’ likelihood of cosponsoring legislation offered by a female representative.

### SI 3 Replicating Washington (2008) and Costa et al. (2019) with Our Data

Tables [SI 3.1](#) and [SI 3.2](#) include replications of [Washington \(2008\)](#) and [Costa et al. \(2019\)](#) respectively. These replications are not *reproductions* of the key tables in the papers. The tables show coefficients from our preferred specification: regressing AAUW scores on number of daughters, indicator variables for the number of children, and MCs' gender. The pooled model also includes fixed effects for each Congress. The standard errors are computed using wild bootstrap. In order to highlight the differences brought about by data coding, each of the tables shows the result of running our preferred specification on the authors' data as well as our data. The first set of columns in each of the tables shows results using the authors' data, and the latter set of columns shows coefficients using our data.

There are three things to note. First, there is little difference between coefficients when we use our data or authors' data. Second, the results we obtain using our data are slightly stronger (more in favor of the daughters effect) than the results obtained by the authors. Third, our sample size is larger, so we are able to more precisely estimate the daughters effects.

**Table SI 3.1: Washington (2008) Replication**

	Dependent variable:									
	105 Washington (1)	106 Washington (2)	107 Washington (3)	108 Washington (4)	Pooled Washington (5)	105 (6)	106 (7)	107 (8)	108 (9)	Pooled (10)
Daughters	0.049* (-0.0003, 0.099)	0.039 (-0.009, 0.086)	0.076*** (0.024, 0.128)	0.066** (0.011, 0.120)	0.054** (0.009, 0.099)	0.077*** (0.028, 0.127)	0.040* (-0.007, 0.086)	0.068*** (0.018, 0.118)	0.046** (0.004, 0.087)	0.056*** (0.014, 0.097)
N	374	378	379	379	1,510	397	393	392	392	1,574
Adj. R <sup>2</sup>	0.092	0.088	0.117	0.071	0.105	0.094	0.090	0.112	0.055	0.104

Note: \* p<0.1; \*\* p<0.05; \*\*\* p<0.01. The coefficients for indicator variables for the number of children and MC's gender are suppressed. The pooled model includes fixed effects for each Congress.

**Table SI 3.2: Costa et al. (2019) Replication**

	Dependent variable:												
	AAUW												
	110	111	112	113	114	110	111	112	113	114	113	114	Pooled
	Costa	Costa	Costa	Costa	Costa	Costa	Costa	Costa	Costa	Costa	Costa	Costa	Pooled
Daughters	0.024 (-0.023, 0.072)	-0.002 (-0.058, 0.054)	0.035 (-0.027, 0.096)	0.051** (0.003, 0.098)	0.016 (-0.033, 0.064)	0.026 (-0.014, 0.065)	0.046** (0.005, 0.086)	0.002 (-0.046, 0.051)	0.041 (-0.010, 0.091)	0.030 (-0.011, 0.070)	0.006 (-0.033, 0.045)	0.026 (-0.009, 0.061)	
N	311	299	286	305	248	400	392	400	401	396	401	396	1,989
Adj. R <sup>2</sup>	0.044	0.043	0.076	0.092	0.101	0.137	0.048	0.054	0.075	0.103	0.075	0.103	0.135

Note: \* p<0.1; \*\* p<0.05; \*\*\* p<0.01. The coefficients for indicator variables for the number of children are suppressed. The pooled model includes fixed effects for each Congress.

## SI 4 Balance Tests

Sex at birth is essentially random. However, parents' preferences for a child's gender can jeopardize the randomization. In extreme cases, parents may elect to have a sex-selective abortion. This will cause the sex of the born children to be imbalanced. On the other end, parents may continue to procreate until they get a child of their preferred gender. This will lead to family size being negatively correlated with the gender of the preferred child. For instance, suppose parents elect to have a stopping rule based on a son being born. If people have a son, they stop procreating. Otherwise, they try again. This pattern of behavior implies a correlation between family size and the proportion of female children—larger families will have a larger proportion of female children. To rule out such selection among subsets, we can also check if such correlations hold by region or by the sex of the MC.

Another source of correlation is a form of selection bias. If liberal voters tend to elect politicians with daughters, while conservative voters are more likely to elect politicians who have sons, we will find that Republicans have a larger proportion of sons and Democrats have a larger share of daughters than the natural base rate. Selection bias could also work in other ways, depending on whether and how voters punish or reward candidates for their daughter-induced liberalism.

In all, we test six implications of our assumptions:

1. The proportion of female children should be .488, the natural base rate in the population.
2. The proportion of female children conditional on number of children  $\sim$  .488.
3. The proportion of female children should be .488 among Democrats and Republicans separately.
4. There should be no correlation between the size of the family and the proportion of female children.
5. There should be no correlation between the region and the proportion of female children.
6. There should be no correlation between the gender of the member of congress and the proportion of female children.

### SI 4.1 Results

There is suggestive evidence that members of congress have slightly more daughters than the natural base rate—the proportion of female children across members of Congress is .507 ( $p = .024$ ). Given that sex-selective abortion is extremely rare in the U.S., this (overall) pattern may be a statistical fluke or a reflection of the unobserved selection process that leads certain people to run for office. More relevant for the as-if random assignment model that lies at the center of this paper is whether the proportion of girls is related to other background attributes.

We see little evidence that members of congress are using a gender-based stopping rule. The correlation between the proportion of daughters and the number of children is  $-.017$ . And as Table [SI 4.1](#) shows, in each of the strata, the proportion of daughters is indistinguishable from .488. Splitting by party yields similar results—the mean proportion of daughters

among Republicans and Democrats is .505 and .506, respectively, and neither is statistically distinguishable from .488 (or from each other). Regressing the number of daughters on major census regions and number of children as a factor variable shows there is essentially no relationship with region ( $p$ -values range from .382 to .743). Lastly, female members of Congress are no more likely to have daughters than male members of Congress ( $p = .579$ ). In all, the evidence is consistent with the assumption that the proportion of daughters conditional on the number of children is ignorable.

**Table SI 4.1:** Proportion of Female Children by Number of Children

Number of Children	Mean Proportion Daughters	p	n
1	0.523	0.326	194
2	0.510	0.126	517
3	0.503	0.261	409
4	0.491	0.837	198
5	0.509	0.323	87
6	0.506	0.558	25
7	0.429	0.185	13
8	0.578	0.061	7
9	0.593	0.583	2
10	0.467	0.781	2

Note: Results of two-tailed one-sample t-test with null as .488.

## SI 5 Data Collection

### SI 5.1 Left-hand side

#### SI 5.1.1 American Association of University Women (AAUW) scores

We downloaded PDFs of biennial AAUW scorecards from the 97th to 116th Congresses (1981-2021) from the AAUW website ([American Association of University Women 2022](#)). For each Congress, AAUW selects around 10 (range: 5-12) roll call votes in both chambers. The AAUW score is defined as the proportion of roll calls for which AAUW's position aligns with each member's vote. Our data contain Senate votes (and Senator scores) and House data, but the analysis is limited to House members.

Using the roll call numbers as identifiers, we compiled a complete list of votes referenced in AAUW's scorecards since the 97th Congress. AAUW scorecards before the 106th Congress do not provide roll call numbers. However, every scorecard includes bill IDs for the legislation associated with the scored roll call vote. To identify roll call numbers for the 97th-105th Congresses, we located these bill IDs on the official congressional website, which contains a unique page for every bill introduced in either chamber of Congress. Each bill's webpage provides a comprehensive list of its roll calls. To identify which roll calls AAUW used to score members, we cross-referenced the vote tallies and dates of roll calls listed on the congressional website with the information provided on AAUW scorecards. Finally, each roll call was labeled based on the session of Congress in which the vote was cast.

Next, we downloaded roll call lists from the official House website. For recent Congresses, we located these lists using identifying information (roll call number, Congress number, and congressional session) of AAUW-selected votes. Unfortunately, roll calls that predate the 100th Congress are not available on the House website. For these roll calls, we consulted Voteview ([Lewis et al. 2022](#)), a resource with roll call data spanning the entire experimental period.

We encountered a few issues while locating roll calls on Voteview. First, Voteview roll call numbers did not always match those listed on the Congressional website. In these cases, we identified the correct roll call by matching vote tallies and dates across sources, as described above. Further, Voteview roll call tallies often differed slightly from the corresponding tallies listed on the Congressional website and AAUW scorecards. When their data were initially collected, Voteview included paired votes and pseudo-votes of presidents in their reported tallies (they have since modified their tallying procedure to match the methodology used by the Clerk website). To reconcile these differences, we removed presidential votes from roll call lists and recoded paired votes as abstentions (and thus did not affect Congress members' scores).

AAUW scorecards incorporate roll calls on bills that do not directly relate to women's issues. Votes on only tangentially related bills, e.g., bills that fund MX Missile programs, expand Social Security benefits, establish child tax credits, confirm Neil Gorsuch, etc.

We independently identified roll calls that directly concern women's issues, such as votes on bills regulating abortion access and addressing gender income disparities. Just 37 percent (63/179) of AAUW-selected House roll call votes are, in our judgment, directly related



to women's issues.

In order to provide more comprehensive information on the legislation associated with AAUW-selected roll calls, we added a 'legislation purpose' column to our AAUW data source. AAUW scorecards provide both a description of these bills and an evaluation of how the measure being voted on would have a beneficial or detrimental impact on women. Most legislation descriptions were taken directly from AAUW scorecards and pasted into this column – others were slightly rephrased.

As a final validation check, we compiled a catalog of AAUW score discrepancies between our data and preexisting data. In other words, for each Congress studied by us and either Washington or Costa et al., we calculated the differences between the AAUW scores we attributed to each MC and those the previous author(s) attributed to each MC, and compiled a table of the substantial differences. We defined a 'substantial' difference as greater than 15 (recall that AAUW scores MCs on a scale from 0-100), and identified 32 cases that fit this condition.

To the extent possible, we relied on MC scores collected by the previous studies. Since both previous studies copied MC scores directly from the scorecards (as opposed to independently recreating them), we already had access to the necessary data.

Our table contains columns with the following identifying information: MC first name, MC last name, MC state, MC district, MC ID (from congress.gov), and Congress of interest. The table also contains columns for three AAUW score measures, defined below.

Measure 1: percent of AAUW-stances MC supported when they voted (based on AAUW data, used by Washington and Costa et al.) Measure 2: percent of AAUW-stances MC supported when they voted (based on our independently collected data) Measure 3: percent of AAUW-stances MC supported overall (based on our data)

The last column of the table reports the difference between the AAUW score used by the previous authors (measure 1) and the overall score calculated using our data (measure 3). For example, Costa et al. reported an AAUW score of 67 for Donald Payne Jr. (NJ-10) in the 114th Congress, whereas we reported a score of 88. Since the difference between these scores is greater than 15, this instance is included in the table.

In addition to measure 1, AAUW used to score members using a 'percent support of all votes' measure. This measure, like measure 3, scored MCs based on the proportion of total scored roll calls that they voted in accordance with AAUW's position. With this data, we could directly compare the MC scores we reported using measure 3 to those AAUW reported using the same scoring criteria. Unfortunately, neither previous study released MC scores using this measure. However, virtually every discrepancy between these corresponding measures could be accounted for by comparing measures 1 and 2. For the 'overall' measures, the number of scored roll calls is fixed and cannot cause MC score discrepancies. Thus, these measures only produce differing MC scores when our data and AAUW's data disagree on the number of roll calls in which an MC voted in accordance with AAUW's stance - a factor which measures 1 and 2 also account for.

This validation check revealed one key source of discrepancies. For the most part, differences between measures 1 and 2 were minimal. Measure 3, on the other hand, often reported vastly different MC scores than the other two measures. The majority of these inconsistencies were caused by differences in scoring criteria – measure 3 scores anything besides a vote in fa-

vor as a vote against AAUW's position, whereas measures 1 and 2 only count roll calls towards an MC's score if they vote. Either criterion may be sensible depending on the circumstance - and sometimes neither is appropriate. For example, choosing not to vote on an AAUW priority demonstrates a lack of commitment to the group's mission. Thus, MCs who abstained from scored votes should be penalized for doing so. On the other hand, if an MC was ineligible to vote on a specific roll call because they were not in office at the time (i.e. if they were ill, died in office, or assumed office in the middle of a congressional term), they should only be scored on the votes they were eligible to vote in. The scoring criteria used by measure 3 (our data) correctly allow for abstentions to affect MC scores, and the other criteria (used by Costa et al. and Washington) correctly ignore votes that MCs weren't in office for - but neither does both. In the 32 MC sample, abstentions contributed to inappropriate scores in 20 cases and MC ineligibility contributed to inappropriate scores in 6 cases.

Fortunately, every AAUW scorecard provides the complete roll call list for each scored vote. We went through every scorecard and compiled a list of every Representative who was marked as ineligible for at least 1 scored vote and removed these MCs from our analysis. This procedure both corrected an important scoring error and ensured we were only analyzing MCs who we had sufficient data.

Other discrepancies were less common and did not affect our data. One such discrepancy involved AAUW's incorrect coding of MC co-sponsorship. AAUW scorecards sometimes claim a MC didn't cosponsor a measure that they in fact did. For example, the AAUW scorecard for the 112th Congress rates MC Anna Eshoo 8/10 (80 percent) because AAUW lists her as not cosponsoring two bills (Title X and Campus Safety) that she did cosponsor (according to the official congressional website). We believe that in these instances, the AAUW released their scorecard before the end of the congressional session and MCs cosponsored the legislation afterwards.

We suspect that AAUW's use of Voteview also contributed to MC score inconsistencies. As mentioned above, Voteview recently corrected slight discrepancies (paired votes, etc) between their lists and the official lists posted on the Clerk website. However, these slight discrepancies were present when AAUW released previous scorecards.

Moreover, if Washington and Costa et al. transferred MC scores directly from the scorecards, they may have encountered join errors. In 2 cases, an AAUW scorecard misspelled a Representative's last name or didn't provide their first name, and Costa et al. miscoded their score as a result.

Finally, one discrepancy was caused by a transcription error. When transferring data from AAUW scorecards to their own data set, Costa et al. mistakenly attributed an AAUW score of 9 to Niki Tsongas (Congress 111), when her score in that Congress was actually 91.

To sum up, this validation check uncovered a few sources of discrepancies between our data and the data used by the previous researchers. However, the only flaw with our data (our inclusion and incorrect scoring of MCs who could not vote in every roll call) was easily amendable. In fact, it seems we avoided many possible threats by collecting our own roll call data.

### SI 5.1.2 Roll-Call Based Ideology Measures

We used the Nominat scores from Voteview ([Lewis et al. 2022](#)).

## SI 5.2 Right-hand side

### SI 5.2.1 Information About Children

We started by using data collected by [Washington \(2008\)](#)—members of Congress (MCs) who served in 105th–108th Congresses, and [Costa et al. \(2019\)](#)—MCs who served in 110th–114th Congresses. The [Costa et al. \(2019\)](#) data, however, cover 66.38 percent (608/916) of the MCs who served in the 110th–114th Congresses.

The datasets have substantial overlap, as many members remained in office for at least part of both periods. We leveraged the overlap to assess the validity of existing data. We combined Washington’s and Costa’s data, selected a random sample of 100 members, and checked the number of children and daughters. The check highlighted a concern about the coding methodology used in the existing literature highlighted previously by ([Conley and Rauscher 2013](#)). Both studies overstate child counts for Congress members because they count step- and adopted children. We rechecked the entire combined dataset using Google, searching ‘[member name] remarry,’ ‘[member name] adopt,’ etc., to weed out miscoded entries. We paid particular attention to cases where the tally differed between Washington’s and Costa et al.’s datasets. Next, we filled in data that were missing in [Costa et al. \(2019\)](#)’s period. The majority of these missing members had no children, as [Costa et al. \(2019\)](#) exclude childless members from their analysis.

We next turned our attention to members who served between the 97th and 104th Congresses but not past the 104th. Two-thirds of the MCs in these Congresses are now dead, and we collected data on children from obituaries. These obituaries were found using three sources: [Legacy.com \(2022\)](#) (both the site itself and the Legacy obituary search engine), archives of national publications (primarily the New York Times, Chicago Tribune, Boston Globe, and Washington Post), and local newspapers. Data were harder to find for the living members. For data on these MCs, we relied on old campaign websites (many of which are no longer active, but could be located on [OurCampaigns \(2022\)](#)), Wikipedia, newspaper articles, state archives, encyclopedias, [VoteSmart \(2022\)](#), official MC websites (archives were gathered from [Library of Congress \(2022\)](#)), websites of former MCs’ current employers, and the Congressional Biographical Directory. When data could not be gathered from these sources (and when child names were gender-neutral), we searched [MC name + family] and [MC name + daughters] and used Google Image results to locate other sources of MC child information and identify MC children as male or female.

The same data collection process was used to locate the familial information of MCs who served only in the 109th Congress (the Congress in between [Washington \(2008\)](#) and [Costa et al. \(2019\)](#)’s experimental periods). Notably, only 5 MCs who served in the 109th Congress were in neither preexisting dataset.

To collect data on representatives who served in only the 115th or 116th Congresses, we gathered data from MC’s (and their children’s) social media accounts, newspaper articles,

state encyclopedias, Wikipedia, ([VoteSmart 2022](#)), campaign and official websites (with less reliance on archive sites such as [OurCampaigns \(2022\)](#) and [Library of Congress \(2022\)](#)), and the Congressional Biographical Directory. Personal websites and social media profiles were often located using [Ballotpedia \(2022\)](#). We also visited Congressional offices on August 5, 2021, to gather data on current MCs. The vast majority (593/664, or 89.3%) of MCs who served in the 115th or 116th Congresses remained in office for the 117th Congress. We followed the following script when interviewing the Congressional staff:

Hello,

My name is [Anonymized]. I am a Columbia University student. I am working with a professor in the political science department on a research project. We are expanding on previous research that studies how the immediate family members of Congresspersons affect their policy positions. As part of the study, we are collecting data from the 1980s to about now. I just have a few short questions that will take no longer than a minute or two. Our questions can be answered by anyone familiar with the representative; it doesn't need to be the representative him/herself.

- How many children does Congress member [] have?
- How many daughters?
- Do they have any step-children?
- How many of the children you listed are step-children?
- Do they have adopted children?
- How many of the children you listed are adopted?
- When were the children born?
- What are their first names?

We were able to gather information for nearly every current MC and followed up with the rest by email. We asked about the age of the children, but staff members rarely knew this information.

One recurring issue in gathering child information was determining children's ages, which are hard to find online. While it helped that data were collected at three different points in time (Washington, Costa et al., this paper), researchers sometimes had to use their best judgment to determine when (i.e., between which Congresses) they should mark changes in the number of children and number of girls. By contrast, researchers rarely had to use their best judgment to identify the gender of MC children as this information usually could be gathered from archival and online sources.

As a data validation check, researchers compiled a list of every MC who we coded as having more or less children than Washington (N=60) and double checked our initial child counts for these MCs. In addition, we collected the names and ages of these children (when this information could be found). Our initial child counts aligned with those gathered by this more thorough search in 50 out of the 60 cases. To be clear, this is not to say that Washington

miscoded these 50 Representatives – it is likely many of these MCs had or lost children during the period between her and our data collection processes.

For nine MCs, our second round of coding attributed a higher child count than Washington’s coding. In all of these instances, we coded one more child than Washington. We reached out to these MCs by email. In these messages, we described our research project and asked the MCs how many biological children they have and how old their children are. Eight of the nine MCs responded to our queries.

In five cases, the MC had a child since Washington published her paper. For these cases, we used the age of the most recent child to determine when (i.e., between which Congresses) to switch from Washington’s coding to our coding. In two cases, we mistakenly identified a stepchild as a biological child and our child counts were higher than they should have been, and we reverted to Washington’s coding for analysis. In one case, Washington left out a child from her coding, and we used our coding. In the final case (the MC who didn’t respond), we reverted to Washington’s coding.

### **SI 5.2.2 Identifying MC Gender**

To code MCs as male or female, we cross-referenced a [Wikipedia \(2022\)](#) list of every female to ever serve in the House of Representatives with our dataset.

## **SI 6 Average Treatment Effect by Cohort by Congress**

**Table SI 6.1: Effect of the Number of Daughters on AAUW Score Controlling for Indicator Variables for the Number of Children by Cohort and MC's gender**

		Dependent variable:																			
		AAUW																			
		97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
Daughters	0.218** (0.101)	0.207** (0.092)	0.123 (0.098)	0.142 (0.112)	0.129 (0.091)	0.183* (0.100)	0.124 (0.076)	0.124* (0.072)	0.156** (0.064)	0.092 (0.060)	0.167*** (0.064)	0.094* (0.053)	0.080 (0.050)	0.153*** (0.056)	0.051 (0.076)	0.094 (0.088)	0.048 (0.074)	0.048 (0.080)	0.030 (0.125)	0.030 (0.124)	
N	85	118	128	151	173	199	274	333	397	393	392	392	353	308	253	211	165	132	110	81	
Adj. R <sup>2</sup>	0.073	0.028	0.004	0.011	0.022	0.052	0.121	0.081	0.086	0.089	0.111	0.051	0.065	0.073	0.055	0.048	0.070	0.059	0.031	0.053	
		Washington Cohort										Non-Washington Cohort									
Daughters	-0.089* (0.047)	-0.101* (0.058)	-0.150** (0.064)	-0.093 (0.082)	-0.119 (0.074)	-0.188** (0.095)	-0.157 (0.108)	-0.343** (0.154)													
N	277	248	233	210	191	169	103	53													
Adj. R <sup>2</sup>	0.007	0.041	0.030	0.026	0.010	-0.012	0.075	0.091													

Note: \* p<0.1; \*\* p<0.05; \*\*\* p<0.01. The coefficients for indicator variables for the number of children and MC's gender are suppressed. The pooled model includes fixed effects for each Congress.

# SI 7 AAUW Scores Over Time

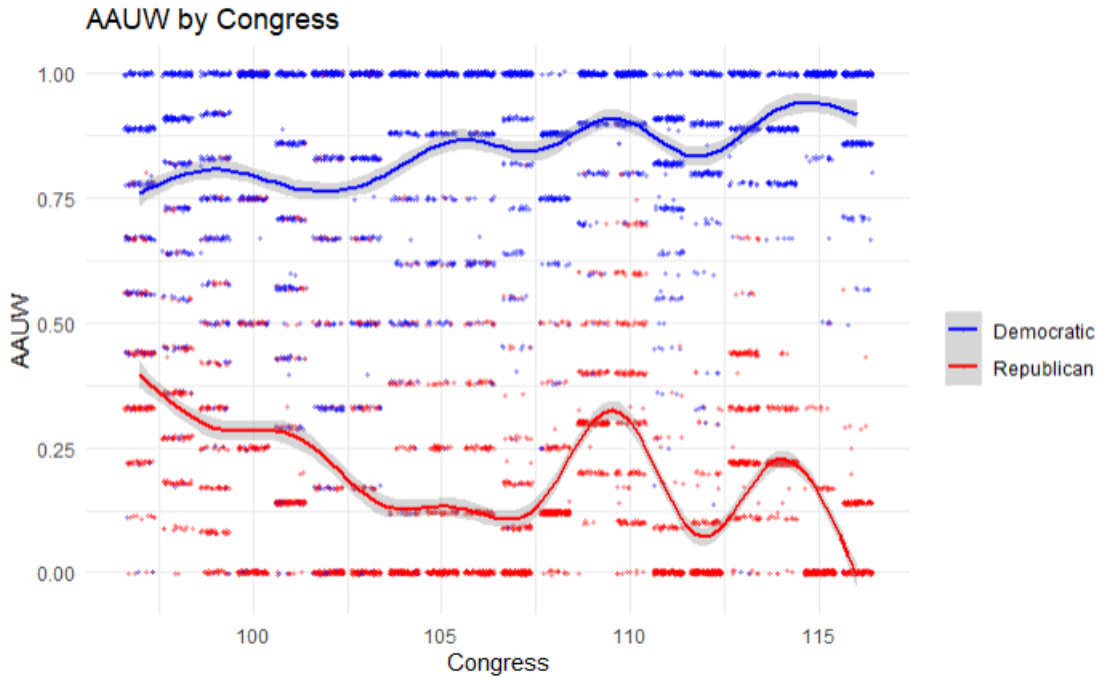


Figure SI 7.1: AAUW Over Time by Party



## SI 8 Alternative Outcome Measures and Specifications

### SI 8.1 Alternate Independent Variable

To shed light on whether different ways of coding the independent variable affects our findings, in line with [Costa et al. \(2019\)](#), we switched the specification from number of girls to whether an MC has at least one girl. As Table [SI 8.1](#) shows, the substantive implications are unchanged.

### SI 8.2 Alternate Outcome Measures

It could be the case that the results we see for 110th Congress and beyond are a result of the switch that AAUW made in how it scored each legislator—AAUW started including cosponsorships. To address this concern, we created a new AAUW score that excluded cosponsorships. As Table [SI 8.2](#) shows, excluding cosponsorships makes little difference.

Much of the literature on daughters effects posits that this phenomenon is especially important in shaping opinions on women’s issues. The opposing hypothesis—daughters affect the general ideological disposition—is that the effect of daughters is not limited to women’s issues. When we switch the dependent variable to NOMINATE, the pattern of estimates is similar to what we obtained using women’s issues (see Table [SI 8.3](#)).

Changing the outcome variable to party suggests no apparent effect as well (see Table [SI 8.4](#)).

We also calculated our own index of roll call votes on women’s issues, which correlated at 0.9 or higher with the AAUW scores. As Table ?? shows, the coefficients are roughly the same.

### SI 8.3 Alternate Specifications

#### SI 8.3.1 Controlling for Party

**Table SI 8.1: Effect of Having Atleast One Daughter on AAUW Score Controlling for Indicator Variables for the Number of Children and MC's gender**

	Dependent variable:																				Pooled (21)
	97 (1)	98 (2)	99 (3)	100 (4)	101 (5)	102 (6)	103 (7)	104 (8)	105 (9)	106 (10)	107 (11)	108 (12)	109 (13)	110 (14)	111 (15)	112 (16)	113 (17)	114 (18)	115 (19)	116 (20)	
Any Daughters	-0.029 (0.034)	-0.022 (0.037)	-0.054 (0.041)	-0.019 (0.050)	-0.009 (0.043)	0.005 (0.052)	0.034 (0.048)	0.061 (0.050)	0.130*** (0.049)	0.071 (0.047)	0.105** (0.051)	0.062 (0.042)	0.016 (0.038)	0.033 (0.041)	-0.015 (0.048)	0.044 (0.049)	0.040 (0.039)	-0.023 (0.037)	-0.056 (0.053)	-0.055 (0.048)	0.016 (-0.039, 0.071)
N	362	366	361	361	364	368	377	386	397	393	392	392	390	400	392	400	401	396	395	377	7,670
Adj. R <sup>2</sup>	0.013	0.030	0.014	0.009	0.012	0.015	0.101	0.054	0.089	0.089	0.106	0.049	0.052	0.056	0.048	0.050	0.072	0.104	0.116	0.181	0.105

Note: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. The coefficients for indicator variables for the number of children and MC's gender are suppressed. The pooled model includes fixed effects for each Congress.

**Table SI 8.2: Effect of the Number of Daughters on AAUW Score (Without Co-sponsorships) Controlling for Indicator Variables for the Number of Children and MC's gender**

	<i>Dependent variable:</i>											
	AAUW			AAUW No Cosponsorship								
	111	112	113	114	115	116	111 NoCos	112 NoCos	113 NoCos	114 NoCos	115 NoCos	116 NoCos
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Daughters	0.001 (0.025)	0.042 (0.026)	0.029 (0.021)	0.007 (0.020)	-0.005 (0.029)	-0.009 (0.027)	0.004 (0.028)	0.043 (0.029)	0.031 (0.021)	0.010 (0.019)	-0.004 (0.029)	-0.010 (0.028)
Observations	389	393	397	393	383	370	389	393	397	393	383	370
Adjusted R <sup>2</sup>	0.049	0.056	0.078	0.102	0.115	0.178	0.042	0.047	0.069	0.085	0.117	0.166

*Note:* \* p<0.1; \*\* p<0.05; \*\*\* p<0.01. The coefficients for indicator variables for the number of children and MC's gender are suppressed. The pooled model includes fixed effects for each Congress.

**Table SI 8.3: Effect of the Number of Daughters on NOMINATE Score Controlling for Indicator Variables for the Number of Children and MC's gender**

		Dependent variable:																				
		Nominate																				
		97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	Pooled
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Daughters		-0.013 (0.024)	-0.006 (0.023)	-0.024 (0.024)	-0.027 (0.024)	-0.017 (0.025)	0.005 (0.024)	0.009 (0.025)	0.020 (0.026)	0.052** (0.025)	0.035 (0.025)	0.056** (0.025)	0.058** (0.026)	0.035 (0.026)	0.041 (0.026)	0.010 (0.026)	0.037 (0.027)	0.025 (0.027)	0.022 (0.027)	-0.003 (0.027)	-0.024 (0.028)	0.014 (-0.021, 0.048)
Observations		362	366	361	361	364	368	377	386	397	393	392	392	390	400	392	400	401	396	395	376	7,669
Adjusted R <sup>2</sup>		0.022	0.017	0.007	0.011	0.001	0.008	0.045	0.028	0.062	0.079	0.105	0.067	0.046	0.052	0.040	0.061	0.098	0.112	0.132	0.160	0.082

Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01. The coefficients for indicator variables for the number of children and MC's gender are suppressed. The pooled model includes fixed effects for each Congress.

**Table SI 8.4:** Effect of the Number of Daughters on Party Controlling for Indicator Variables for the Number of Children

	<i>Dependent variable:</i>
	p(Democrat)
Number of Daughters	-0.008 (0.069)
Constant	0.325** (0.150)
Observations	1,464
Log Likelihood	-990.983
Akaike Inf. Crit.	2,005.966
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

**Table SI 8.5: Effect of the Number of Daughters on AAUW Score Controlling for Indicator Variables for the Number of Children, MC's gender and party**

	Dependent Variable:																			
	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
Daughters	0.001 (0.013)	0.004 (0.012)	-0.004 (0.015)	0.025 (0.018)	0.013 (0.017)	0.005 (0.020)	0.014 (0.017)	0.024* (0.014)	0.034*** (0.012)	0.013 (0.012)	0.022*** (0.010)	0.015* (0.008)	0.005 (0.008)	0.020** (0.010)	0.004 (0.008)	0.016** (0.008)	0.019** (0.009)	-0.004 (0.005)	-0.002 (0.006)	0.009 (0.007)
Ind.						0.257 (0.312)	0.305 (0.261)	0.288 (0.219)	0.195 (0.188)	0.195 (0.201)	0.189 (0.159)	-0.065 (0.123)	0.109 (0.125)							
Rep.	-0.362*** (0.022)	-0.473*** (0.020)	-0.465*** (0.024)	-0.579*** (0.029)	-0.462*** (0.027)	-0.553*** (0.033)	-0.560*** (0.028)	-0.685*** (0.022)	-0.725*** (0.019)	-0.674*** (0.021)	-0.773*** (0.017)	-0.639*** (0.013)	-0.569*** (0.013)	-0.591*** (0.016)	-0.749*** (0.014)	-0.809*** (0.013)	-0.633*** (0.015)	-0.657*** (0.008)	-0.936*** (0.011)	-0.820*** (0.012)
Observations	362	366	361	361	364	368	377	386	397	393	392	392	390	400	392	400	401	396	395	377
Adjusted R <sup>2</sup>	0.451	0.616	0.520	0.528	0.459	0.446	0.578	0.730	0.805	0.757	0.866	0.876	0.845	0.791	0.890	0.911	0.838	0.950	0.957	0.937

Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

### SI 8.3.2 Hierarchical Model

**Table SI 8.6:** Estimated Average Treatment Effect Among All MCs Using a Random Effects Hierarchical Model

	<i>Dependent variable:</i>
	AAUW
N. Daughters	0.004 (0.012)
Observations	7,670
Akaike Inf. Crit.	-4,646.969
Bayesian Inf. Crit.	-4,410.837

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

## SI 9 Impact of Including Non-Biological Children

We re-analyze the Congresses analyzed by Washington (2008) after including non-biological children. There are 11 MCs with non-biological children, 12 daughters and 8 sons. As Table SI 9.1 shows, including non-biological children makes little difference.

**Table SI 9.1:** Estimated Average Treatment Effect Among All MCs Including Non-Biological Children

	<i>Dependent variable:</i>				
	105	106	AAUW 107	108	Pooled
	(1)	(2)	(3)	(4)	(5)
N. Daughters	0.059** (0.025)	0.034 (0.024)	0.060** (0.025)	0.039* (0.021)	0.047*** (0.012)
Observations	396	393	392	392	1,573
Adjusted R <sup>2</sup>	0.081	0.087	0.107	0.050	0.098

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01



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