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The Missing Fingerprints: U.S. Women Legislators and International Development Aid

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Abstract

There is an optimism that a growing number of women in political office will reorient the focus of international politics towards more social and humanitarian issues. One basis for this optimism are arguments that women legislators hold distinct foreign policy preferences and act on them to affect changes in policy. However, we know little about gender differences in behavior of individual legislators on these issues. This study investigates the behavior of individual legislators of the United States, one of the most important actors in international politics, in the context of development aid. Analyzing a diverse set of legislative behaviors in the U.S. Congress, we find no evidence that women legislators behave any differently than men with regards to these issues. Beyond its contribution to our understanding of the making and future of American foreign policy, this study contributes to broader debates about women's representation and foreign policy.

More women are gaining access to political power around the world, affording them increased opportunities to shape domestic and foreign policies. This trend has sparked optimism that women's increased inclusion in positions of power will help to shift international politics away from military interventions and towards social and humanitarian issues (Slaughter, 2012). Research on gender and foreign policy lends some credence to this optimism. Indeed, across the globe women's representation in parliament is associated with lower levels of defense spending (Koch and Fulton, 2011; Clayton and Zetterberg, 2018), greater contributions to combating climate change (Mavisakalyan and Tarverdi, 2019), less involvement in violent international conflict (Caprioli, 2000; Regan and Paskeviciute, 2003), lower tariffs (Imamverdiyeva et al., 2021), and more spending on global humanitarian actions (Breuning, 2001; Shea and Christian, 2017). Together, these findings show a consistent pattern between gender, legislative representation, and foreign policy. However, the underpinnings of this relationship are not well understood.

One explanation for the association between women's representation and foreign policy outcomes is the women's values thesis, which contends that women politicians hold distinct foreign policy preferences and that these preferences lead women in office to behave in ways that shift policy in a more humanitarian fashion (Breuning (2001) but see also Togeby 1994; Koch and Fulton 2011; Hicks et al. 2016). Complementing the women's values thesis is the social equity thesis (Breuning, 2001; Lu and Breuning, 2014). This thesis holds that it is a country's underlying values and preferences for equality that lead to *both* increases in women's representation and more humanitarian policy. While these two possible explanations are often examined jointly, in this article, we focus our attention on the women's values thesis and test whether women legislators exhibit different (more humanitarian) legislative behaviors compared to men.

While public opinion research offers support for the conclusion that women in the *general public* are more altruistic and supportive of peaceful and humanitarian foreign policy (Eichenberg, 2016; Andreoni and Vesterlund, 2001; Lizotte et al., 2020), we know much less about how these results generalize or transport to political elites.[1] Moreover, to

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[1] Exceptions are McGlen and Sarkees (1993), Holsti and Rosenau (1981), Imamverdiyeva et al. (2021), Bashevkin (2014), and Bashevkin (2018).

the extent that women *do* shift foreign policy agendas in a more humanitarian direction, we know very little about how they do this.[2] To address these points, we examine the behavior of female legislators across four different types of legislative behaviors: roll-call voting (1981–2008), bill (co-)sponsorship (1985–2008), participation in legislative hearings (2007–2019), and oversight of the U.S. aid bureaucracy (2007–2014). Not only do these behaviors represent distinct ways that women could influence foreign policy, but they also vary in terms of their level of visibility and the amount of discretion afforded to legislators. We argue that if women legislators hold distinct foreign policy preferences, and these preferences meaningfully shift the tenor of foreign policy, then we should observe gender differences somewhere in the policy process. In drawing on a diverse set of legislative behaviors, we acknowledge that there are multiple ways that legislators can influence foreign policy.

Our focus on specific legislative behaviors rather than aggregate level outcomes allows us to build upon past research on gender and foreign aid and speak directly to the ongoing debate in the literature between the women's values and social equity theses. In the study most similar to our own, Lu and Breuning (2014) also explore this question by comparing the relationship between women's inclusion in legislatures and key cabinet posts with aid expenditures. They conclude that the relationship between gender and aid expenditures is likely rooted in social equity after observing that though women's presence in legislative politics is positively associated with foreign aid, women heads of foreign-policy related ministries (presumably the women with the greatest policy influence in this area) are not. While this research certainly provides insights into the present study, it does not allow us to understand how gender may influence the *specific* behaviors of elites. Rather than making cross-institutional comparisons, we directly examine individual legislators' behaviors in a single institution across multiple fora.

Our analysis focuses on legislative behavior in the U.S. House of Representatives in the context of development aid. We focus on the United States because it is the largest overall donor of development aid and is a country that still has a relatively small, yet

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[2]   An exception is Bendix and Jeong (2020) who study roll-call voting on military matters in the U.S. Congress and find limited evidence of gender-differences.

increasing, share of women in the national legislature. If the women's values thesis holds, we would predict that U.S. foreign policy will become more and more humanitarian at the margin. Our focus on the case of development aid is consistent with other research on gender and foreign policy, and development aid is often the outcome of interest in studies that seek to disentangle the women's values and social equity theses (e.g., Breuning, 2001; Lu and Breuning, 2014). Understanding these dynamics is important, not only for our understanding of the relationships between donor and recipient countries, but also for our understanding of foreign policy generally. While the general public is often not terribly attuned to the dynamics of foreign aid, shifts in foreign policy towards aid (and presumably away from conflict and military intervention) have important global political consequences.

Our results provide almost no evidence that women act any differently than men in using legislative levers to influence U.S. aid policy. Across a series of models, differences in behavior are often tiny (mean estimates), at times opposite to the expected direction, noisy, and almost always statistically insignificant. Additional analyses across political parties and time periods do not reveal any noteworthy heterogeneity in the association between a legislator's gender and their behavior in the context of foreign aid.[3] Given the breadth of legislative behaviors we examine, our results provide little support for the women's values thesis, at least in the United States. While our analyses do not allow us to address preferences per se, they do let us to assess the manifestation of preferences in the policy-making process.[4] The fact that we see almost no differences between men and women legislators – even in contexts of activities that are highly discretionary and less visible, such as monitoring USAID – challenges arguments that women legislators have distinct, more humanitarian preferences than men in the case of development aid and suggest that the optimism for a more humanitarian foreign policy as women enter parliament in the United States should be scaled back.

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[3] The only statistically significant difference shows up for Republican women legislators monitoring USAID. As this is one out of 48 heterogeneity estimates, we refrain from placing too great an emphasis on this finding.

[4] Though the nature of our analysis varies considerably, our substantive conclusions are in line with Lu and Breuning (2014).

While our focus is on development aid, our results also speak to women's representation and U.S. foreign policy more broadly. Because aid is of relatively low salience and is perhaps the foreign policy area least-associated with masculinity, the electoral and institutional constraints faced by legislators should be weakest in this context. The fact that we find almost no evidence of women legislators promoting aid suggests that we should not expect gender differences to manifest in other foreign policy domains, where electoral, partisan, and other institutional constraints will be stronger. Indeed, a study on voting on military matters in the U.S. Congress finds that gender-differences largely disappear after accounting for legislators' party affiliations (Bendix and Jeong, 2020).

Beyond this contribution to our understanding of the present and future of U.S. foreign policy, the paper engages with broader debates over explanations for the observed relationships between women representations and foreign policy (see also Lu and Breuning 2014). Our results clearly demonstrate the usefulness in analyzing individual politicians to directly test key mechanisms in these explanations (Bendix and Jeong, 2020; Imamverdiyeva et al., 2021). In addition, while our analyses are limited to the United States, our failure to find evidence for the women's value thesis call for more attention to alternative explanations and to potential scope conditions.

Gender and Development Aid

The relationship between women's representation and foreign policy has been documented in a range of policy domains, including defense spending (Koch, 1997; Clayton and Zetterberg, 2018), tariffs (Betz et al., 2021; Imamverdiyeva et al., 2021), climate change cooperation (Mavisakalyan and Tarverdi, 2019), use of force (Caprioli, 2000; Caprioli and Boyer, 2001; Regan and Paskeviciute, 2003), and humanitarian intervention (Shea and Christian, 2017). The common thread is that greater parliamentary representation for women is associated with a more humanitarian and peaceful foreign policy. Prominently, many studies report fairly consistent, positive associations between women's seats shares in national legislatures and aid expenditures (Breuning 2001; Lu and Breuning 2014; Hicks et al. 2016; Fuchs and Richert 2018; Yoon and Moon 2019; Okundaye and Breuning 2021,

but see Lundsgaarde et al. 2007; Fuchs et al. 2014).[5] A similar association is found with higher aid quality, an important dimension of foreign aid which assesses how well a given amount of aid is targeted to serve those most in need (Hicks et al. 2016; Heinrich and Kobayashi 2022).[6] Unfortunately, our understanding of the mechanisms that produce these associations is scant.

In her foundational work, Breuning (2001) provides two explanations for the observed relationship between women's representation and development aid, and almost all scholarship on the topic – whether implicitly or explicitly – draws on one of them. The first, which is the focus of the present paper, is the women's values thesis. It contends that women politicians hold distinct foreign policy preferences, which manifest in observable differences in legislative output. The second, the social equity thesis, argues that overarching societal preferences and attitudes towards equality lead to higher expenditures on foreign aid and to more women in legislatures. In this paper, we focus on testing the mechanisms of the women's values thesis.

The women's values thesis holds that women parliamentarians have more development-minded preferences and act to further development goals. Research commonly draws on evidence that women are more altruistic towards others, particularly in contexts where social distance is high – as would be the case with foreign aid (Engel 2011; Eckel and Grossman 1998) – and are more inequality-averse than men (Dufwenberg and Muren 2006; Andreoni and Vesterlund 2001). Moreover, women hold more favorable attitudes towards domestic policies that promote equity and equality (Inglehart and Norris 2000; Luttmer and Singhal 2011) and development aid than men (Bauhr et al. 2013; Paxton and Knack 2012).[7] Most of these studies focus on ordinary citizens rather than elites. The few elite studies that exist report mixed evidence (Holsti and Rosenau 1981; McGlen and Sarkees 1993; Bashevkin 2014).

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[5] These findings have led scholars to employ the share of women as an instrument for development and democracy aid (Dietrich and Wright, 2014; Ziaja, 2020).

[6] Some evidence also suggests that the gender of international development ministers is related to aid quality (Kleemann et al. 2016; Fuchs and Richert 2018; Dreher et al. 2015).

[7] While women are more likely to agree that helping poor countries is normatively important, answers become statistically indistinguishable from (sometimes even more negative than) men's when asked about economic aid specifically (Chong and Gradstein 2008; Heinrich et al. 2016, 2021).

On the other hand, the social equity thesis argues that overarching societal preferences and attitudes towards social equity lead countries to invest more in foreign aid, while also creating a political environment that is more conducive to women's emergence in politics (Breuning, 2001; Lu and Breuning, 2014). This explanation calls into question the claim that women's legislative actions would be different from men's, implying that gender-based compositional differences do not cause differences in foreign aid outcomes, and indeed foreign policy outcomes more broadly. In their study of the relationship between gender and foreign aid expenditure, Lu and Breuning (2014) find that while the percentage of women serving in parliament is associated with increased aid, female foreign ministers are associated with decreases in aid. Because foreign ministers are more powerful than rank and file parliamentarians, they conclude that this indicates the social equity thesis is the more compelling explanation. Making comparisons across positions however may miss potentially important nuances. Women are not randomly selected to hold ministerial positions (see Goddard 2019), and it could be the case that the type of women who are selected for these positions deviate from rank and file members in important ways.

Building on past research, we contribute to this debate by focusing on the behaviors of individual legislators. Assuming that gendered mass attitudes extend to elites, research has focused on women's overall presence in the parliament rather than focusing on the behavior of individual legislators that ought to give rise to the observed country-level outcomes. Yet, the women's value thesis posits a specific mechanism based on individual politicians' behavior in parliament. We argue that a shift towards individual legislators is a productive way to evaluate the women's value thesis and to ultimately contribute to the broader debate about women's representation and foreign policy.

We are not the first to study the behaviors of individual legislators to shed light on the relationship between gender and foreign policy. Notably, three prior studies systematically examine individual behavior of legislators, but the evidence for the role of gender in foreign policy is mixed and limited in scope. Bendix and Jeong (2020) analyze roll-call votes on security-related bills in the U.S. Congress and report limited evidence of gendered differences in voting behavior after accounting for legislators' routine backgrounds like

their party affiliation. Angevine (2017) and Imamverdiyeva et al. (2021) analyze voting and sponsorship of bills that deal with foreign women as policy targets and find evidence that women legislators are more likely than men to vote on and introduce such legislation, respectively. While these insights are useful, there are other fora available where legislators can influence policy-making, and it is unclear whether the results extend to other, broader policy domains like foreign aid. Most notably, our study departs from these previous studies by examining multiple forms of legislative behavior that vary in important ways, which we outline below.

Legislative Behavior on Foreign Aid

The women's values thesis implies that if women's presence causes increases in aid expenditures, we should see men and women legislators engaging in observably different behaviors at the individual level. To test for such differences, we focus our attention on the behaviors of legislators in the U.S. House of Representatives. Though women remain underrepresented in the U.S., especially in comparison to other nations, their inclusion has been increasing over the last several decades. Moreover, if the link between women's inclusion and foreign aid is rooted in individual-level differences, we should still be able to observe differences in behaviors even in contexts such as Congress, though as we note below it is important to account for the institutional and contextual constraints (women) legislators face.

We focus our attention on the U.S. case for two reasons. First, there is great availability of data across many forms of legislative behavior (e.g. roll-call voting, hearings, bill cosponsorship, bureaucratic interventions) that are not readily available in other countries. We acknowledge that there are many paths through which legislators can effectuate their preferences, either through policy discussion, creation, or implementation. Thus, in order to determine whether and how women influence foreign aid expenditures, accounting for these multiple paths is essential.

Second, the U.S. House of Representatives has been researched more extensively compared to other national parliaments, enabling us to draw on the extensive knowledge to

guide our inquiry. In particular, despite the strong partisanship and extent of women's underrepresentation in the U.S. Congress, existing work documents that gender differences do manifest in women's behavior in the U.S. Congress in some instances: the types of bills women (co)sponsor (Swers, 2002), the types of topics women discuss (Pearson and Dancey, 2011), and the tone used to talk about women's issues (Dietrich et al., 2019). Collectively, this work suggests that while institutional constraints might shape the ways in which women's behavior in office can diverge from men's, these factors are not so strong as to create uniformity. In other words, if women hold distinct preferences on foreign aid, as assumed by the women's values theses, there should be *some* opportunity for them to act on these preferences.

In our analysis, we examine four legislative behaviors, all of which could be used to influence policy creation or implementation related to foreign aid: roll-call voting, bill (co)sponsorship, participation in legislative hearings, and contacting bureaucratic agencies. We select these behaviors because they vary considerably on two key dimensions: visibility and partisan control. Partisanship is the dominant organizing feature in American politics, making it important to take visibility and institutional control seriously. For example, behaviors that are highly visible, such as bill co-sponsorship, may disincentivize women from acting on pro-aid preferences if those preferences diverge from her party. Conversely, men might be incentivized to act in a pro-aid fashion (whether or not they hold this preference) if it matches their party. In either case, this would reduce differences in the behaviors observed from men and women legislators. In contrast, low-visibility behaviors, such as monitoring bureaucratic agencies, may allow differences in preferences to manifest as these types of behaviors are less likely to be monitored by party leaders and to draw ire in cases where representatives act in a manner discordant with the party.[8]

Likewise, the ability of political parties to structure behavior could influence whether we see women engaging in different behaviors than men, even if they hold different preferences. For example, in the case of "agenda-response" behaviors such as roll-call voting, parties have the ability to structure not only how bills are voted on, but which bills come

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[8] Our data on such monitoring only became public via a Freedom of Information Act (FOIA) request by Lowande (2018).

up for a vote (see Osborn 2012; Snyder and Groseclose 2000). Because of the high degree of control afforded to parties and the structured nature of the choice-set offered to legislators in these contexts, party cohesion should be high, which may limit the observance of gendered differences in behavior. In contrast, "agenda-setting" behaviors, such as bill (co-)sponsorship, are (relatively) less structured by parties in government and offer legislators more discretion in pursuing their policy interests (see Osborn 2012).

In the sections that follow, we test for differences between men and women for each of our four legislative behaviors. Roll-call voting – a highly visible, highly structured act – represents the hardest case for the women's values thesis. Bureaucratic oversight in contrast represents the easiest test in that it is a low visibility act that is not structured by party elites. By examining an array of legislative behaviors that vary across several dimensions, we argue that if women legislators truly hold distinct preferences on foreign aid, we should see differences emerge in at least one of the behaviors we look at.

Roll-call Voting

The first channel through which legislators can affect aid outlays that we study is roll-call voting on foreign aid bills. Roll-call voting offers that hardest test for the women's values thesis as it is highly visible and structured by political parties (Snyder and Groseclose, 2000; Osborn, 2012). These features should both act as constraints on legislators to act on their preferences. Indeed, to the extent that scholars have observed gendered differences in roll-call voting in Congress, the results have been mixed. While early scholarship found that women were more liberal than their male counterparts (Welch, 1985; Frankovic, 1977), other research finds that, at this stage of the legislative process, gendered differences are minimal, and factors such as partisanship and ideology are more important predictors of women's (and men's) roll-call behaviors. Indeed, Frederick (2009) reports that to the extent men and women do engage in different roll-call behaviors, these differences have been diminishing over time as Congress has become increasingly ideologically polarized.

At the same time, scholars have observed gender differences in roll-call voting patterns in some circumstances. For example, Swers (1998a) finds that after accounting for par-

tisanship, district characteristics, and a host of other controls, Congresswomen are more likely to vote in support of women's issues bills. Likewise, Frederick (2015) finds that while men and women who represent similar districts have "virtually indistinguishable voting records on the liberal-conservative policy dimension," women are more supportive of legislation dealing with women's interests than men (pg. 103). While not necessarily categorized as a women's issue in much of the literature, we do note that development aid is often related to women's issues through its impact on women, children, and issues such as education and health care. For that reason, we expect women to advocate for aid to a greater extent than men through their roll-call votes, if women legislators hold more pro-aid preferences compared to their male counterparts.[9]

We start with roll-call data collected by Milner and Tingley (2015), the most comprehensive dataset for bills related to foreign aid in the House of Representatives. The temporal domain spans the 97th to 110th Congresses. We restrict our attention to "economic aid" bills which deal mostly with amendments to proposals on aid appropriations that to seek a change in aid appropriations.[10] Some bills seek increases to aid generally, whereas others decreases. For each legislator in a Congress, and for each bill, we record whether the vote is a 'yay' for an outcome that would lead to an "increase" in aid compared to the opposite vote, whether one votes 'nay' on such outcome. Abstentions are also possible. We aggregate the votes so that we have the shares of 'yay' and 'nay' votes for each person in each Congress (scaled by 100).

We augment this dataset by adding a legislator's gender as well as legislator-specific and constituency-level data, which prior work has theorized and examined to have effects on legislative action on foreign aid and on the probability of electing a woman representative. For legislator-specific variables, we include the legislator's age, ideology (first

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[9] Importantly, we note that roll-call voting is somewhat distinct from the other behaviors we analyze in this article for another reason. While roll-call voting crudely captures legislator positions, it does not capture intensity of preferences as legislators are not necessarily given a say in what they vote on.

[10] We exclude bills on food and geopolitical aid. For one, food aid is known to be notoriously captured by the agricultural industry; for the other, so-called geopolitical aid does not clearly relate to the development objectives implicit in the body of the work on the association between legislative compositions and aid allocations.

dimension DW-NOMINATE score), race, whether the legislator was a freshman member, whether their legislator was born outside of the U.S., whether the legislator served in a party leadership position,[11] and whether the legislator served on the appropriations or foreign affairs committee. For district-level variables, we obtain the percentage of people born abroad in the district, percent with B.A. and above degrees, percent hispanic, percentage white, and the percent of the district that is urban. Further, we develop a prosperity score to measure economic well-being at the district level.[12,13] Finally, we add the state-level social and economic liberalism scores provided by Caughey and Warshaw (2016), the percentage of the state that voted for the Democratic presidential candidate in the most recent presidential election,[14] and whether a legislator was from a state in the U.S. South.

The resulting dataset has 4,232 legislator-Congress observations, spanning the $97^{th} - 110^{th}$ Congresses (1981–2008). Four hundred twenty-four of these observations come from 136 unique women.[15] A first glance at the data suggests a strong imbalance by gender across all covariates (Table A.1). If the imbalance is related to preferences on foreign aid as well, which we would expect for several covariates, then this selection effect causes problems for inference. We take two approaches to remedy these issues, leading to a doubly robust estimation of the effect of a legislator's gender on roll-call voting behavior. First, we reweigh the male legislators' observations such that the averages of covariates match those in the women legislators' data.[16] We use entropy balancing to balance the pre-specified

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[11] We define party leadership using the set of offices defined by the Congressional Research Service.

[12] We take a set of covariates (percentages of households that make at least 15k/ 25k/ 35k/ 50k/ 75k/ 100k U.S. dollars per year; percent unemployment [reversed sign]; percent employed), turn them into z-scores, and then calculate the mean.

[13] These data come from Ella Foster-Molina who assembled them from U.S. census data (https://github.com/profEllaFM/congressData). For more recent Congresses, we use information available at https://www.census.gov. For earlier congresses, we use census data aggregated by Adler (2003).

[14] This data comes from the MIT Election Data + Science Lab.

[15] This dataset has few missing values, which we remedy by using the multiple imputation implementation by Honaker and King (2010). Throughout, we conduct the estimations and calculations of effects for each of the 50 imputed datasets.

[16] The specific covariates are: the home state's social and economic liberalism, the first dimension DW-NOMINATE score, age, the prosperity score, and the district's percentages of people that are foreign born, hold four-year college degrees, and identify as white.

moments of the "untreated" sample (i.e. male legislators) to those of the "treated" sample (i.e. female legislators) (Hainmueller, 2012). We conduct this reweighting within strata of party and Congress, ensuring that women legislators are only compared against co-partisans in the same Congress. The advantage of entropy balancing is that, unlike matching, it targets covariate imbalance directly, a potential source of confoundedness and bias. Figure A.1 shows how the sizable differences in the raw data largely disappear after reweighing. Second, we include an indicator capturing the party affiliation of each member of Congress as well as an indicator capturing the specific Congress (e.g., the 115th) in which a legislator served. Including the latter allows us to account for all Congress specific factors such as the overall percentage of women serving. A larger control set uses almost all of the same variables that we used for reweighing.[17] We estimate the models via OLS, bootstrap-clustering residuals by party-Congress. We obtain estimates from each imputed data set, pooling the estimates for a final result.

Table 1 gives the results for our main estimates. The first column shows the coefficient when regressing the percentage of 'yay' votes cast for aid-increase bills on a female-indicator as well as controls for the Congress and the legislator's party, i.e. using the simple model specification. The coefficient is 0.8, which suggests that a woman legislator casts less than one percentage-point more votes for bills that would increase foreign aid. To get a sense of the magnitude of this, consider that in 2021, there are 101 women in the House of Representatives. Crudely, our estimates suggest that there would be one more vote for an aid-increase bill compared to when the whole chamber consisted of men or if there were no gender differences. The effect is tiny. Even though the point estimate is in the direction suggested by the women's values thesis, the uncertainty estimates show that the coefficient is statistically insignificant as the confidence interval contains zero and the standard error is almost four times the absolute value of the coefficient.[18]

The the share of 'nay' votes under the simple covariate specification (column 3) shows

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[17] This control set uses the same variables that we used for reweighing except that the household income and the unemployment percentages are replaced by the index of district prosperity.

[18] We refrain from discussing any of the control variables because they were chosen to help with inference on the gender indicator and not to have a substantive interpretation. That said, the full tables are available in Section D in the appendix.

	Voting yay on aid increase		Voting nay on aid increase	
	Simple	Detailed	Simple	Detailed
Gender				
Coefficient	-0.7	-1.3	0.2	1.1
95% CI	[-5.0; 3.6]	[-5.1; 2.5]	[-3.4; 3.8]	[-2.1; 4.4]
S.E.	(2.2)	(1.9)	(1.9)	(1.7)
Specification				
Party control?	✓	✓	✓	✓
Congress control?	✓	✓	✓	✓
District controls?		✓		✓
Legislator controls?		✓		✓
Data				
# Men	3899	3899	3899	3899
# Women	424	424	424	424
# unique Women	136	136	136	136
Congresses	97–110	97–110	97–110	97–110

Table 1: **Estimates for gender-effects in roll call voting on foreign aid using all observations.** The table reports the estimated coefficients on legislator gender (1=female). The Simple model specifications in Columns 2 and 4 includes indicators for party affiliation and Congresses. The Detailed specifications in Columns 3 and 5 further include legislator-specific (age, DW-NOMINATE, freshman, race/ ethnicity, foreign affairs/ appropriations committee, born abroad) and district-specific variables (percentages foreign born, with college degrees, whites, prosperity score, in the South, Democratic vote share in the last presidential election, state social and economic liberalism).

a similar pattern. While the change magnitude is larger than for the 'nay' percentages, the estimate is still in the predicted direction but also small in magnitude and also statistically insignificant. Adding the additional legislator-specific and district-specific covariates to either model (columns 2 and 4) reduces the respective point estimate (absolute value) as well as the standard error. Nonetheless, the estimates remain statistically insignificant.

Bill Co-sponsorship

Having uncovered no evidence of gendered differences in roll-call voting, we next analyze co-sponsorship of bills. Like roll-call voting, co-sponsorship is a highly visible act. However, unlike roll-call voting, co-sponsorship offers legislators more flexibility. While majority parties exert strong control over which bills are voted on, the decision to create or sign-on to co-sponsor a piece of legislation and determine the content of the bill offers

legislators relatively more agency. Therefore, we might expect that differential preferences on aid to manifest in the types of policies legislators (co-)sponsor, even if we do not observe differences in roll-call behaviors when these bills eventually come up for a vote. Indeed in her study, Swers (1998b) finds the largest differences between Congressmen and Congresswomen at this stage of the legislative process.

Existing evidence suggests that women use (co-)sponsorship as a means to promote women's issues in a way that is distinctive from Congressmen (Volden et al., 2016; Celis, 2006; Franceschet and Piscopo, 2008; Swers and Larson, 2005). Congresswomen are more likely to (co-)sponsor feminist legislation (Wolbrecht, 2002; Swers, 2002), and more likely to sponsor bills related to "women's issues" such as education, health care, and child care (Swers, 2002, 2016; Swers and Larson, 2005). Angevine (2017) shows parallel patterns in foreign policy, where women are more likely to sponsor bills where foreign women are the policy target. Thus, if women legislators have different preferences on foreign aid, (co-)sponsorship may be a viable avenue to pursue these preferences.

Unlike for roll-call votes, we could not draw on existing research to determine which bills address foreign aid. We first identified bills of potential interest for us out of the universe of bills. We started with the Congressional Bills Project (Adler and Wilkerson, 2013), which categorizes bills based on topic using the coding system of the Policy Agendas Project/Comparative Agendas Project. For each Congress between the 97th and 110th, we sampled 1/3 of all bills that are labeled either "International Affairs" or "Foreign Aid." We then hired workers via Amazon's MTurk platform to code whether each bill was about development aid or not, and if it was, we asked them to code whether the bill increased, decreased, or left the level of aid the same. This gives us 135 aid increase and 39 aid decrease bills, which we analyze separately. See Section B for details of this crowd-sourced coding process. Then, we used the Cosponsorships Network Data compiled by Fowler (2006a,b) to identify all sponsors and cosponsors for all bills to come before Congress.

As before, we aggregate the item-specific choices to the legislator-Congress level, calculating the percentage of aid-increase and aid-decrease bills that a person (co)sponsored

| | Consponsoring aid increases | | Consponsoring aid decreases | |
	Simple	Detailed	Simple	Detailed
Gender				
Coefficient	0.1	0.2	0.0	0.0
95% CI	[-0.5; 0.7]	[-0.2; 0.5]	[-0.6; 0.7]	[-0.8; 0.8]
S.E.	(0.3)	(0.2)	(0.3)	(0.4)
Specification				
Party control?	✓	✓	✓	✓
Congress control?	✓	✓	✓	✓
District controls?		✓		✓
Legislator controls?		✓		✓
Data				
# Men	4656	4656	4656	4656
# Women	558	558	558	558
# unique Women	131	131	131	131
Congresses	99–110	99–110	99–110	99–110

Table 2: Estimates for gender-effects in cosponsoring legislation on foreign aid using all observations. The table is constructed like Table 1.

(scaled by 100). The covariates and model specifications are like before. In Figure A.1, we show that entropy balancing again reduces gender imbalances in this data set.

The results echo those from the roll-call votes as Table 2 shows. For legislation to increase or decrease aid, gender does not make a difference for the shares of either type that a legislator signs on. The point estimates are tiny in magnitudes and statistically indistinguishable from zero.

Congressional Hearings

So far, we have found no evidence that women legislators are more likely to promote foreign aid or to prevent cuts to aid compared to men. We now shift our attention to behaviors related to policy implementation that are relatively less visible. Examining the implementation stage of the policy process is essential because bureaucratic agencies handling aid have considerable discretion over the implementation of aid policy (Van Belle, 2004; Arel-Bundock et al., 2015; Fuchs and Richert, 2018). Legislative activities, such

as making inquiries about policy implementation in hearings and directly contacting bureaucratic agencies, can essentially work as oversight over the aid bureaucracy (Milner and Tingley, 2015, Ch. 3). Thus, to the extent that women's presence in legislatures is linked to aid expenditures, we must understand not only what bills are passed, but the practical reality of how these bills are implemented.

We turn our attention to participation in hearings. Even though it is visible behavior, most hearings are rarely attended by members of the committee and do not typically gain attention from the public. In this sense, legislators may be more free to act on their preferences in this forum as they are unlikely to attract attention. At the same time however, the extent to which women participate in these hearings is still structured by institutional factors. Literature on deliberation shows that women's participation its effectiveness in deliberative settings depends on the behavior of male legislators, the composition of the group, as well as the rules structuring discussion (Kathlene, 1994, 1995; Karpowitz et al., 2012). Thus, while legislators are afforded relatively more discretion by virtue of hearings being a low-visibility activity, participation in these venues still represents a context where some other, subtle institutional constraints are present.

We examine two questions in the context of hearings. First, we are interested in whether, among all members of the committees holding a given hearing, women legislators are more likely than men to participate in the hearing by making any comments and inquiries about policy implementation. Second, we examine whether women legislators express greater support for aid than men given that they participate in those hearings.

We collected transcripts of hearings in which senior personnel from USAID or the Millennium Challenge Corporation (MCC) appear by accessing the ProQuest Congressional Database. First, we obtained 120 hearing transcripts dating back to 1970 in which "USAID" and "Millennium Challenge" appeared as keywords. Next, we examined titles and synopses to find those that covered topics relevant to the study.[19] This led to 25 hearings

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[19] For example, the hearing entitled "The FY2014 Budget Request – U.S. Foreign Assistance Priorities and Strategy" was downloaded for use as the hearing focuses on USAID's current priorities. On the other hand, one entitled "Meeting the Challenges of the Millennium" was not as it contained the relevant keywords but was not actually about foreign aid in any way. Further, if a transcript contained testimony from a USAID administrator, but the testimony was about the current events in a certain country and not primarily about aid, the transcript was omitted.

in the House and Senate,[20] a number that drops to twelve when restricting attention to those held by the House of Representatives. While we can use these twelve for the attendance of meetings, the number declines to ten when examining expressed attitudes as this analysis necessitates that a hearing is attended by at least one woman and one man legislator.

Our first analysis concerns whether, among all members of the committees holding a given hearing, women legislators were more likely to participate at all. For this, we assemble a dataset with the potential attendee – hearing as the unit of analysis. This yields a data set of 424 men and 63 women legislator observations, spanning the 110th to 115th Congresses (2007–2019). The outcome variable is an indicator for whether the legislator participated in the hearing or not, which we analyze with linear probability models on reweighed data (scaling the "1" response by 100).[21]

The second analysis concerns the positivity toward aid expressed by the attending legislators. Since attendance at these meetings is rare, the sample size drops dramatically (56 and 16 men and women legislator observations). We measure the expressed sentiment for each legislator in each hearing by coding random samples of speech fragments. For every speaker in every hearing, the authors coded speech fragments (three sentences by an attendee in a row) as negative/neutral/ positive about development aid, or not about aid. Three authors each coded about 15% of the 6,251 possible fragments, and two others about 10%. We then estimate the latent aid sentiment at the speaker-level in a hearing via a measurement model to remove coder-specific idiosyncrasies (Caughey and Warshaw, 2015) (see Section C for full details). Specifically, we use the positively-coded expressions among all coded utterances (by coder) to estimate positive aid attitudes. These latent attitudes are scaled to a standard normal distribution. These latent attitudes are examined as before, relying on reweighed data and linear regression models.[22]

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[20] The latent variable estimation described below is run on the set of 25 hearings.

[21] Notice that we do not aggregate to the legislator-Congress level as the number of potential hearings to attend differs. Since hearings vary in what they cover, we wanted to be able to include intercepts for each hearing.

[22] As there is measurement uncertainty over our outcome variable, we use a non-parametric bootstrap, taking one draw from the latent estimates. Results are averaged over these bootstraps and imputations.

	Attend hearings on aid		Support aid at hearings	
	Simple	Detailed	Simple	Detailed
Gender				
Coefficient	3.0	2.0	-0.5	-0.2
95% CI	[-8.7; 15.4]	[-9.7; 14.1]	[-1.5; 0.4]	[-4.2; 3.5]
S.E.	(6.2)	(6.1)	(0.5)	(2.0)
Specification				
Party control?	✓	✓	✓	✓
Congress control?	✓	✓	✓	✓
District controls?		✓		✓
Legislator controls?		✓		✓
Data				
# Men	404	404	57	57
# Women	83	83	15	15
# unique Women	23	23	4	4
Congresses	110–115	110–115	110–114	110–114

Table 3: Estimates for gender-effects in attendance and attitudes in aid-related hearings using all observations. The table is constructed like Table 1.

Table 3 gives the results. The gender effects on attending an aid-related hearing are tiny once again as well as statistically insignificant from zero with standard errors about three and ten times the sizes of the coefficients under the two specifications. The expressed sentiments are lower for women legislators by about half a standard deviation of the outcome scale – a direction opposite to what the women's values thesis predicts – but with again large standard errors.

Before moving on to our last analyses, a few remarks are in order. First, our data collection revealed that only 25 hearings were relevant to development aid in the 23 year period we examined (Senate and House), and only 12 are usable for our research here. This corroborates our claim that development aid is low-salience in the eyes of members of the Congress, suggesting that the electoral and institutional constraints should be relatively weak. That is, if women legislators have preferences for promoting aid, they should feel relatively free to act on such preferences in the hearings that do take place. Yet, the share of women attending those hearings is low. Second, it merits repeating how few observations there are in the analysis of expressed sentiments. Presumably just a few

hearings taking place now or in the future could change the results we present.

Monitoring USAID

Our final analysis concerns lobbying bureaucratic agencies. Contacting and lobbying bureaucracies on behalf of (groups of) constituents represents another opportunity for legislators to shape policy implementation. While we found no gendered differences in participation and expressed sentiments in Congressional hearings, we noted that these are still context in which institutional structures are likely to shape legislative behavior. Informal, direct contact with the bureaucracy, however, is not a structured activity which means legislators have far more autonomy in exercising their preferences. Moreover, such activities are not visible, meaning that the constraints legislators face when engaging in these behaviors are minimal. However, such legislative requests can have influence on policy decisions and implementations by U.S. bureaucracies (Mills and Kalaf-Hughes, 2015; Ritchie and You, 2019).

We anticipate that if women hold distinct foreign policy preferences and want to act on such preferences, contacting agencies handling foreign aid should be one of the easiest places to affect policy change. Evidence from Lowande et al. (2019) indicates that women do indeed contact bureaucracies in a manner that differs from men, often in ways that can be seen as acting for women's interests. In the analysis that follows, we test whether women similarly use this avenue to influence the implementation of pro-aid policy.

In the analysis of direct intervention with the bureaucracy, we probed whether women legislators are more likely to monitor the primary bureaucracy for aid, USAID, than men. Our analysis on bureaucratic oversight activities drew on data collected by Lowande (2018) who filed Freedom of Information Act requests for records of contacts made by individual members of Congress to USAID between 2007 and 2014.[23] These contacts are requests by legislators to elicit some type of response from USAID, including congressional casework and general inquiries related to policy. A "casework" contact is defined as a request made

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[23] Our own FOIA request to the Millennium Challenge Corporation received no response beyond the acknowledgment of the receipt of the request.

	Contacting USAID (total)		Contacting USAID (policy)	
	Simple	Detailed	Simple	Detailed
Gender				
Coefficient	-1.0	1.5	-1.5	0.8
95% CI	[-7.6; 5.6]	[-5.5; 8.6]	[-5.7; 2.7]	[-3.5; 5.0]
S.E.	(3.3)	(3.6)	(2.2)	(2.2)
Specification				
Party control?	✓	✓	✓	✓
Congress control?	✓	✓	✓	✓
District controls?		✓		✓
Legislator controls?		✓		✓
Data				
# Men	723	723	723	723
# Women	144	144	144	144
# unique Women	85	85	85	85
Congresses	110–111	110–111	110–111	110–111

Table 4: **Estimates for gender-effects in contacting USAID using all observations.** The table is constructed like Table 1.

by a legislator on behalf of a particular constituent or a group of constituents while a "policy" contact as an inquiry about policies but not serving particular constituents. We analyzed any request and only the policy-related subsets.

We examined these indicators (scaled by 100) of legislative activity the same as before. Once again, entropy balancing reduced imbalances in this data set as well (Figure A.1). We used two binary outcomes, namely whether one contacted USAID at all or specifically about policy. Table 4 gives the results for all House members. The first two columns examine any request made to USAID, the latter two only policy-related ones. Once again, the gender-based differences are tiny, and confidence intervals include zero.

Heterogeneity Over Time and by Party

Over the course of the maximal temporal dimension of our data, much has changed. Not only have there been different partisan constellations of which party holds the presidency and each chamber of Congress, the number of women in U.S. Congress has been increasing,

a phenomenon motivating this particular study. Even though partisan constellations are only weakly associated with aggregate aid flows in the U.S. (Goldstein and Moss, 2005; Gibler and Miller, 2012), the particular targets, emphases, and language surrounding development has varied across Congresses and presidential administrations. As a result, we want to examine whether our results are masking important and interesting partisan and temporal heterogeneity (Neumayer and Plümper, 2017, Ch. 12).

The first set of examinations repeat the analyses from above after subsetting the data sets. We do so by party (Sections E and F of the online appendix) and for recent cases (since 106th Congress, Section G). The results are essentially the same as discussed above, characterized by many small point estimates and statistical insignificance across each outcome and each set of control variables. Due to the smaller sample sizes, some confidence intervals become quite wide.

The one deviation comes when examining Republican legislators contacting USAID (Table A.12, columns 1 and 2). Republican women are about 7.4–8.0 percentage-points more likely to contact USAID over any matter than their male counterparts in the party. While statistically significant, the magnitude is substantively small. Assuming 30 Republican women for this back-of-the-envelope calculation, the estimated gender effect increases the number of inquiries with USAID by about two per Congress compared to the absence of an effect. This number is tiny given that there are around 100 such inquiries in total from Congress. However, one should not overinterpret this one deviation. We examine eight outcomes, two covariate model specifications, and three subsets (two by party, one by time period). Yielding $8 \times 2 \times 3 = 48$ gender coefficients, it is possible that this result is due to chance.

The second examination tackles over-time heterogeneity more directly. Given that in some years, the observations is small, we employ an approach that "squeezes" information more efficiently out of the existing data. For one, for each outcome, we split the data by the gender of the legislator and estimate a model that connects all our demographics and biographical covariates to the outcome. Subsequent post-stratification using female legislator's observed covariates (for each Congress) in both the male and female models

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gives us an efficient estimate of the gender-effect. For the other, we rely on a statistical model that is more efficient at extracting information by ignoring variables with weak predictive power and by discovering non-linearities (Bisbee, 2019). Specifically, we use random forest models for this (Montgomery and Olivella, 2018).

More formally, let $f_{o,c,g}(X_i)$ be the predictive function for a given **o**utcome in a given **c**ongress that relies on observations of a specific **g**ender ({male, female}) that takes as input X_i, a vector of covariates (district demographics, biographical details). For each $j \in J$ who is a female member of the cth Congress, we calculate $\mu_{o,c} \equiv f_{o,c,f}(X_j) - f_{o,c,m}(X_j)$. Average over all female members, we obtain the gender effect for a given outcome in the cth Congress, $\left(\sum_{j \in J} \mu_{o,c}\right)/|J|$. We use a 1,000 non-parametric iterations for each combination of outcome and gender, saving the mean and 95% confidence intervals as results.[24]

Figure 1 shows the results for all outcomes over time, except for the sentiments expressed at the hearings as the data set is too small for this type of analysis. Each panel gives the results for one outcome. In each, the y-axis indicates the difference between the estimate for the woman and man legislators (ie. $\mu_{o,c}$), which is either a difference in shares (cosponsoring, roll-calls) or probabilities (attending hearings, contacting USAID); the x-axis denotes the Congress number.

Across almost all Congresses and outcomes, there is no detectable difference in legislative behavior by the gender of the legislators. As in our aggregated results (that control for temporal idiosyncrasies), male and female legislators attending aid-related hearings to a similar extend, contact USAID to comparable extents, and cosponsor and vote alike. The only deviation was the 100th Congress, during which female legislators voted *against* aid-increasing bills about 10 percentage-points more often than their male colleagues. Given the number of estimates we provide in this section, one should not overinterpret this outlying case; however, even if one wanted to focus on it, the direction goes in the direction *opposite* of the women's value thesis.

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[24]   We use the tuning parameter setting obtained from using the full data for each outcome, Congress, and gender combination.
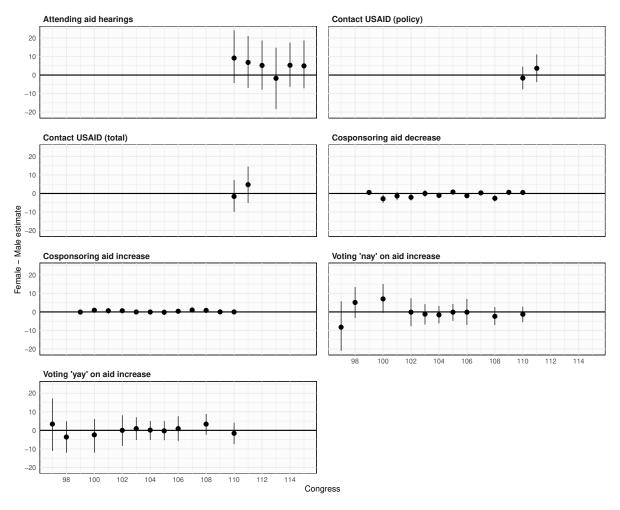
Figure 1: Gender effects in legislative behavior across Congresses; random forest estimates.
Each panel plots the difference in expected values if the legislator is female compared to male, estimated separably for every Congress in the sample for our outcome phenomenon. The y-axis shows either a difference in shares (cosponsoring, roll-calls) or probabilities (attending hearings, contacting USAID). The dot gives the mean, the line the 95% confidence interval.

Discussion

Under the women's value thesis, an increase in the number of women in a parliament should lead to more – and higher quality – development aid because women politicians more actively promote international development than their male counterparts. However, across legislative modes of influence, women legislators were generally not observed to be significantly more supportive of foreign aid. Estimates using a doubly-robust reweighing approach (Zhao and Percival, 2017) and random forests show very similar pictures, increasing the confidence we should have in the overall conclusions. The lack of gender-based differences in legislative behavior about foreign aid provides no support for the key mechanism in the women's value thesis, at least in the important case of the U.S.

These behavioral results also have an important implication for one of the assumptions underlying the women's value thesis. If U.S. women legislators had distinct preferences over aid policy, as assumed in the women's value thesis, but feared taking highly visible stances, there are channels, such as participating in hearings and directly contacting USAID, where their activities are considerably less visible but still can have influence on policy. Yet, our analyses of these fora show that men and women legislators essentially do not behave differently even in these contexts. Therefore, the room for maintaining the assumption that women and men politicians have different preferences shrinks in light of the evidence from the diverse forms of legislative behavior.

Of course, there are other potential reasons why U.S. women legislators might choose not to act on their distinct preferences (if they hold them). First, women politicians may mask their true preferences for fear of electoral backlash. After all, the primary goal of any politicians is to survive in office. While foreign aid in and of itself is a topic that is often low salience for the general public, advocating for international development at the expense of promoting other, salient issues might harm politicians electorally, women in particular, by reinforcing feminine stereotypes that voters generally do not deem favorably in selecting leaders (Eagly and Karau, 2002; Bauer, 2019; Vinkenburg et al., 2011). Promoting international development may fall into the category of feminine stereotypes.

In a companion paper, we have examined this electoral backlash possibility by studying whether it pays or harms a legislator's election prospects to advocate for international development (AUTHORS, 2021). Using a conjoint experiment, we analyze how voters select legislators to represent them in Congress based on bundles of political messages by legislators of differing genders (and parties). We find little evidence that any legislator, man or woman, is systematically punished, or rewarded, for promoting international development in their communication with constituents. Therefore, *any* legislator in the U.S. should be able to advocate for international development without fear of electoral backlash. This is particularly the case when we consider the low-salience of aid for the general public relative to other issues. If voters do not respond (positively or negatively) to politicians stances on aid when they are given this information *directly*, we have little

reason to think most voters would be attuned to – or seek out – the stances of their elected officials on this specific issue. Yet, women legislators do not advocate for development issues any differently than their male counterparts as the results in this paper shows. Thus, U.S. women legislators are likely not masking their preferences for fear of sanction at the ballot box.

Second, women politicians may be masking their true preferences due to the lack of critical mass of women necessary to translate women's preferences into policy change. However, critical mass theories have historically been contested (Sarah and Mona, 2008) with some arguing that gender differences are actually more likely to manifest when women are fewer in number (Crowley, 2004). We also note that despite women's underrepresentation in the U.S. Congress, many studies do find evidence of gendered differences in behavior (Swers, 2002; Pearson and Dancey, 2011; Dietrich et al., 2019; Frederick, 2015). Our results using later years, when the share of woman legislators is higher, are the same as before, suggesting that changes at the observed margins of the mass are not consequential. While we can only advance our indirect evidence contra the critical mass argument here, the room for maintaining the foundational assumption of the women's value thesis is considerably small.

Conclusion

A growing number of women serve in the United States Congress, and in parliaments around the globe. This upward rise has raised an important question for scholars and practitioners who are interested in the politics of foreign policy. Will women reorient foreign policy toward more humanitarian issues? We tackle this question directly in this paper by examining multiple behaviors from members of the U.S. House of Representatives. Given the United States' status as one of the largest donor countries—and the growing number of women serving in Congress—understanding the dynamics between women's inclusion and aid outcomes in this context is particularly important. Our analysis reveals virtually no gendered differences in how U.S. legislators approach development aid, *even in contexts where they have high degrees of discretion and would be able to act*

without drawing attention to themselves. These findings strongly suggest that the recent and future increases in women's representation in U.S. Congress are unlikely to lead to a greater emphasis on international development (or increased aid expenditures) by the U.S. government.

This study also helps to shed light onto some of the broader debates in the literature on gender and foreign policy. Researchers have grappled with, debated, and interrogated competing explanations to explain observed relationships between gender, representation, and foreign policy. Our findings provide no support for one prominent explanation, the women's value thesis. An alternative account is the social equity thesis (Breuning, 2001; Lu and Breuning, 2014; Caprioli, 2000; Koch and Fulton, 2011; Brysk and Mehta, 2014), which holds that societal attitudes towards social equity lead countries to pursue more humanitarian and peaceful foreign policies, while also creating a political environment that is more conducive to women's emergence in politics. While we do not evaluate this explanation directly in this paper, our results suggest that the social equity thesis is a more fruitful framework for future research, which we should also do more to examine societal preferences as determinants of foreign policies.[25] This is consistent with past scholarship by Lu and Breuning (2014), who also suggest that the social equity thesis may play more of a role in explaining the relationship between gender and donor country generosity than the women's values thesis.

While the U.S. is the largest contributor to global development aid, it is important to consider to which extent the our results are transportable to other aid donors, such as Germany, United Kingdom, Japan, and the European Union. One obvious feature of the U.S. case might limit the transportability is that U.S. citizens have historically been among the least enthusiastic supporters of development assistance compared to people in other donor countries. This lack of enthusiasm might tamp down legislative incentives to act in a pro-aid fashion, or actively disincentivize such behavior. By contrast, voters in other donors are generally more supportive and may be more willing to reward politicians, especially women, for emphasizing international development. These differences might

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[25]   See, however, Imamverdiyeva et al. (2021) for legislative behavioral differences in the realm of tariffs on internationally traded goods.

also be compounded in cases where development aid is a higher salience issue, compared to the U.S. where foreign aid is not typically a high-salience issue in elections. While this scenario is possible, many other donors have proportional electoral systems (or some variant thereof) in which political parties have strong influence on legislators' behavior. This means that the role voters play in shaping the behaviors of individual legislators is smaller compared to those in the United States. That said, this alternative causal mechanism could be at work despite the powerful role played by political parties. Research on a wider variety of donors would generate useful insights into the relationship between gender and foreign aid.

More generally, our study demonstrates the benefits of shifting the level of analysis from country-level to individual politicians. We call for future research to unpack the "black box" and study women *in* foreign policy-making to better adjudicate between competing explanations (Smith, 2020; Williams, 2017). At the same time, our findings call for greater attention to the social equity thesis, which studies have so far tested at the macro-level (Caprioli, 2000; Koch and Fulton, 2011; Brysk and Mehta, 2014; Lu and Breuning, 2014). Here, a shift towards the individual level would be productive as well. For example, in the context of development aid, the thesis would imply several hypotheses, including that citizens who support gender equality should be more likely to support development aid. A better understanding of the micro-foundation of these prominent explanations is strongly needed in the literature on gender and foreign policy.

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The Missing Fingerprints:
U.S. Women Legislators and Development Aid

Web Appendix
Not for Print Publication

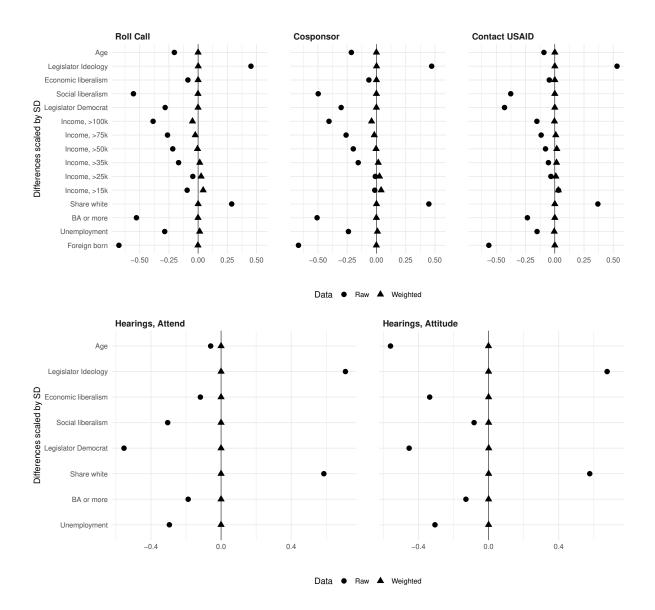# Contents

A   Balancing

Figure A.1: Covariate balance between men and women legislators across data sets. Each panels a different data set used for analysis. The x-axis in each gives the standardized difference between men and women legislators; dots show the differences in the raw data, triangles for the reweighed data based on stratified entropy balancing.

B Additional Details on Co-sponsorship Analysis

To examine whether men and women co-sponsor aid legislation at different rates, we use the Cosponsorships Network Data by Fowler (2006a, b). Using this data, we are able to obtain the list of cosponsors on every piece of legislation to come before the U.S. House of Representatives and Senate from the 93rd Congress to the 110th Congress. Bills of potential interest were identified using information from the Policy Agendas Project. The Policy Agendas Project classifies each piece of legislation as falling under one of twenty-three potential topics, followed by a sub-topic classification. For example, a bill related to foreign aid may be classified as falling under the topic of "International Affairs" and the subtopic of "Foreign Aid."

To identify which of these bills pertain to foreign aid (and the content of these bills), we conducted crowd-coding using MTurk workers. For each Congress, we randomly sampled one-third of the bills of potential interest for coding. Workers on MTurk were given brief descriptions of a given bill from the Congressional Archive. After reading this summary, workers were asked to identify: 1) whether the bill was related to foreign aid, and 2) if so, did the bill increase aid, decrease aid, or did not influence the amount of aid. Our procedure was designed to assign multiple workers to each bill. In cases where our workers reached a consensus, bills were coded based on this consensus. If consensus was not achieved, the researchers read the bill summary in question a made a determination about the appropriate coding. All in all, we ended up with 39 decrease and 135 increases bills.

C   Additional Details on Hearing Analysis

The hearings used in this analysis are a collection of full–text transcripts released by U.S. Congress and cataloged in the ProQuest Congressional Database. The database contains a record of all Congressional hearing transcripts dating back to 1824, with the title, synopsis of the topics covered, date, members, and full text of the hearing. We first filtered this database to search for hearings dating back to 1970, then keyword-searched these hearings for "USAID" and "Millennium Challenge." This cast a wide net, yielding approximately 120 hearings in the date range containing those keywords. These were further filtered by title and synopsis using a keyword search, downloading only the ones that cover topics relevant to the study. For example, the hearing entitled "The FY2014 Budget Request—U.S. Foreign Assistance Priorities and Strategy" was downloaded for use as the hearing focuses on USAID's current priorities. On the other hand, one entitled "Meeting the Challenges of the Millennium" was not as it contained the relevant keywords but was not actually about foreign aid in any way. Some transcripts were removed out due to a lack of relevance for foreign aid. For example, if a transcript contained testimony from a USAID administrator, but the testimony was about the current events in a certain country and not primarily about aid, the transcript was omitted. In the end, 25 transcripts of hearings were retained. While we estimate the measurement model below on these 25 hearings, the usable number for inferential purposes falls to twelve for the study of whether committee members show up as we only examine the U.S. House. For the expressed attitudes, the number declines to ten because we require at least one woman and one man to be present at the hearing.

Our interest lies in measuring the positivity toward aid that hearing attendees expressed. We split each speaker's totality of remarks at a hearing into text segments three sentences in length. Five of the authors coded these fragments without knowing the hearing, speaker, and date. Specifically, we coded using these instructions: "if you can reasonably infer that the paragraph is about funds for promoting international development—e.g. poverty alleviation, education, better access to clean water, etc."; if the answer is "yes", the coder should judge whether the speaker is "defending development aid or advocating for an increase or better use of aid" (positive), if the legislator "is advocating for a reduction or withdrawal of aid" (negative), or if it is neutral.[26]

All in all, there are 6,251 such speech fragments. Three authors coded randomly about 15%, two about 10% of them. Many fragments were coded multiple times.

For each speaker–hearing, we estimate the latent expressed sentiment toward aid using our coded fragments (three sentences). Let Y_{ij} denote the number of positive segments out of N_{ij} coded segments for speaker-hearing i coded by coder j. The probability that a given segment of i is coded as positive by j is modeled as a function of the speaker's latent sentiment toward aid (θ_i) adjusted by a coder specific offset (κ_j) and scaled by the variability of legislators' expressions and coders' judgements of i and j, respectively (σ_i, τ_j). We use the normal cumulative density function as the link function to relate the latent sentiment to the probability parameter in a Binomial distribution. Taken together, we have

$$Y_{ij} \sim Bin(\pi_{ij}, N_{ij}),$$

---

[26]   Neutral should not be used if the statement contains positive and negative expresses. In such a case, an overall assessment should be made.

with the key probability parameter modeled[27] as

$$\pi_{ij} = \Phi\left(\frac{\theta_i + \kappa_j}{\sqrt{\sigma_i + \tau_j}}\right).$$

The scale of the parameter main interest, θ_i, the latent support for aid by speaker-hearing (i), is set by assigning a standard normal prior.[28] The model is estimated using JAGS. A second model uses the sum of positive and neutral (ie. non-negative) codings as Y_{ij}.

Figure A.2 shows the summary of the results for the ten hearings that we are using in the analysis. Each panels gives the estimates for one hearing; the speakers are on the y-axis, the x-axis indicates θ_i.
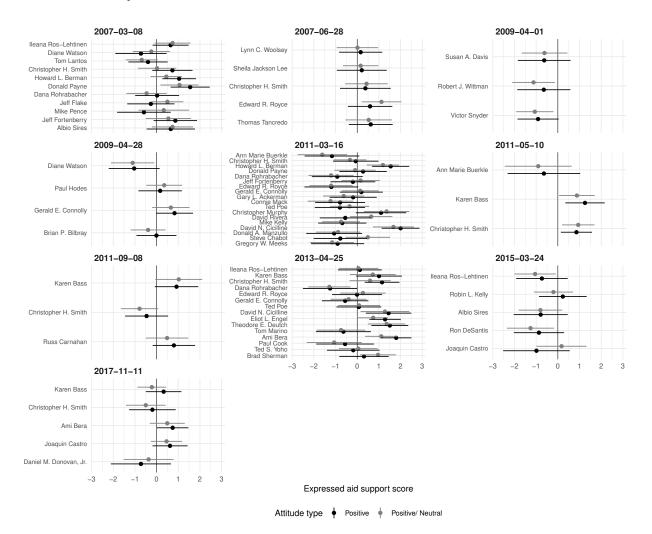

Figure A.2: Estimates of θ for every speaker by hearing. The dot denotes the median estimate, the line segments the 95% central credible intervals. Black dots/ lines show results using only positive utterances, whereas gray ones use non-negative instances.

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[27]   The items in the denominator are restricted to be positive, and κ_j is given a N(0,1) prior.

[28]   The model is a close adaptation of Caughey and Warshaw (2015).

D   Extended tables for main analysis

D.1   Roll-call

	Voting yay on aid increase		Voting nay on aid increase	
	Simple	Detailed	Simple	Detailed
Gender, female	-0.7	-1.3	0.2	1.1
	[-5.0; 3.6]	[-5.1; 2.5]	[-3.4; 3.8]	[-2.1; 4.4]
Party, Democrat	33.9	-16.1	-35.8	11.7
	[17.5; 50.5]	[-35.6; 3.6]	[-51.9; -19.8]	[-7.3; 30.7]
Ideology		-73.4		69.4
		[-93.8; -52.8]		[49.3; 89.6]
Age		0.0		-0.1
		[-0.1; 0.2]		[-0.3; 0.0]
Hispanic		-7.4		-1.1
		[-14.1; -0.6]		[-6.9; 4.6]
Asian		0.4		1.7
		[-6.0; 6.8]		[-2.8; 6.1]
African American		2.7		-4.1
		[-2.3; 7.8]		[-8.6; 0.3]
Born abroad		2.7		4.3
		[-3.6; 9.1]		[-1.4; 9.9]
Freshman		4.1		-5.1
		[0.9; 7.2]		[-8.2; -1.9]
Committee, foreign affairs		1.7		-0.8
		[-2.1; 5.4]		[-4.3; 2.7]
Committee, appropriations		4.8		-3.8
		[1.9; 7.6]		[-7.1; -0.4]
From the South		-7.8		7.4
		[-11.6; -4.0]		[2.7; 12.1]
Percent white		0.1		-0.1
		[0.0; 0.2]		[-0.1; 0.0]
State social liberalism		6.2		-7.9
		[0.3; 12.1]		[-14.9; -1.0]
State economic liberalism		32.2		-20.9
		[22.7; 41.7]		[-29.8; -12.1]
District prosperity		1.1		-2.6
		[-1.4; 3.6]		[-5.4; 0.2]
Percent w/ B.A. degree		0.1		-0.1
		[-0.1; 0.3]		[-0.3; 0.1]
Percent foreign born		0.1		-0.1
		[-0.1; 0.2]		[-0.2; 0.1]
Pres. Democrat vote share		-0.9		0.9
		[-1.3; -0.5]		[0.6; 1.3]
Data				
# Men	3899	3899	3899	3899
# Women	424	424	424	424
# unique Women	136	136	136	136
Congresses	97–110	97–110	97–110	97–110

Table A.1: Estimates for all coefficients in roll call voting on foreign aid using all observations. The models were designed to give the coefficient on gender a substantive interpretation; other coefficients should not be interpreted. Intercept and coefficients on indicators for Congress omitted. The number is the mean estimate, the range gives the 95% confidence interval.

D.2 Co-sponsorship

	Consponsoring aid increases		Consponsoring aid decreases	
	Simple	Detailed	Simple	Detailed
Gender, female	0.1	0.2	0.0	0.0
	[-0.5; 0.7]	[-0.2; 0.5]	[-0.6; 0.7]	[-0.8; 0.8]
Party, Democrat	2.2	-3.4	-0.3	-1.3
	[0.9; 3.5]	[-4.7; -2.1]	[-3.7; 3.0]	[-6.4; 3.8]
Ideology		-7.2		-1.0
		[-9.0; -5.5]		[-8.3; 6.3]
Age		0.0		0.0
		[0.0; 0.0]		[0.0; 0.0]
Hispanic		-0.7		0.2
		[-1.5; 0.2]		[-0.6; 1.0]
Asian		-0.6		-0.4
		[-2.1; 1.0]		[-2.0; 1.2]
African American		0.0		-0.5
		[-0.7; 0.7]		[-1.5; 0.4]
Born abroad		-0.4		1.4
		[-1.4; 0.5]		[0.0; 2.8]
Freshman		-0.6		0.7
		[-1.0; -0.2]		[-0.6; 1.9]
Committee, foreign affairs		1.4		0.1
		[0.6; 2.1]		[-0.5; 0.6]
Committee, appropriations		-0.7		-0.6
		[-1.0; -0.4]		[-1.2; -0.1]
From the South		0.0		0.0
		[-0.4; 0.4]		[-0.8; 0.8]
Percent white		0.0		0.0
		[0.0; 0.0]		[0.0; 0.0]
State social liberalism		0.4		1.0
		[-0.1; 1.0]		[0.2; 1.8]
State economic liberalism		1.3		-1.5
		[0.4; 2.2]		[-3.8; 0.7]
District prosperity		-0.2		-0.7
		[-0.6; 0.2]		[-1.3; -0.1]
Percent w/ B.A. degree		0.1		0.1
		[0.0; 0.1]		[0.0; 0.1]
Percent foreign born		0.0		0.0
		[0.0; 0.0]		[-0.1; 0.1]
Pres. Democrat vote share		-0.1		0.0
		[-0.1; -0.1]		[-0.1; 0.1]
Data				
# Men	4656	4656	4656	4656
# Women	558	558	558	558
# unique Women	131	131	131	131
Congresses	99–110	99–110	99–110	99–110

Table A.2: Estimates for all coefficients in cosponsoring legislation on foreign aid using all observations. The models were designed to give the coefficient on gender a substantive interpretation; other coefficients should not be interpreted. Intercept and coefficients on indicators for Congress omitted. The number is the mean estimate, the range gives the 95% confidence interval.

D.3 Hearings

	Attend hearings on aid		Support aid at hearings	
	Simple	Detailed	Simple	Detailed
Gender, female	3.0	2.0	-0.5	-0.2
	[-8.7; 15.4]	[-9.7; 14.1]	[-1.5; 0.4]	[-4.2; 3.5]
Party, Democrat	-9.8	-55.3	0.5	-1.7
	[-24.1; 4.3]	[-109.3; -4.2]	[-0.3; 1.3]	[-8.9; 6.3]
Ideology		-51.6		-4.5
		[-131.6; 22.1]		[-15.1; 6.1]
Age		0.2		-0.1
		[-0.5; 0.9]		[-0.2; 0.1]
Hispanic		1.9		-1.5
		[-28.9; 34.4]		[-7.5; 4.6]
Asian		-5.0		0.2
		[-27.7; 19.9]		[-5.0; 4.8]
African American		23.5		-0.5
		[1.9; 45.4]		[-5.6; 5.3]
Born abroad		2.0		0.7
		[-28.2; 29.8]		[-3.5; 5.1]
Freshman		-4.7		0.6
		[-21.0; 12.8]		[-2.3; 3.2]
Committee, foreign affairs		27.8		-0.7
		[-8.2; 63.1]		[-5.1; 3.7]
Committee, appropriations		16.7		0.4
		[-17.8; 57.0]		[-8.5; 8.2]
From the South		-3.0		0.5
		[-19.8; 13.9]		[-2.8; 4.2]
Percent white		0.2		0.0
		[-0.4; 0.7]		[-0.1; 0.1]
State social liberalism		13.9		-0.5
		[-15.2; 43.4]		[-6.0; 5.5]
State economic liberalism		19.3		2.1
		[-66.7; 105.6]		[-10.0; 14.4]
District prosperity		6.5		-0.2
		[-10.7; 23.0]		[-3.2; 2.6]
Percent w/ B.A. degree		0.3		0.0
		[-1.2; 1.8]		[-0.3; 0.3]
Percent foreign born		0.1		0.0
		[-0.6; 0.8]		[-0.1; 0.1]
Pres. Democrat vote share		-0.6		0.0
		[-2.7; 1.6]		[-0.4; 0.4]
Data				
# Men	404	404	57	57
# Women	83	83	15	15
# unique Women	23	23	4	4
Congresses	110–115	110–115	110–114	110–114

Table A.3: Estimates for all coefficients in attendance and attitudes in aid-related hearings using all observations. The models were designed to give the coefficient on gender a substantive interpretation; other coefficients should not be interpreted. Intercept and coefficients on indicators for Congress omitted. The number is the mean estimate, the range gives the 95% confidence interval. Intercepts for separate hearings were also omitted.

D.4   USAID Contact

	Contacting USAID (total)		Contacting USAID (policy)	
	Simple	**Detailed**	**Simple**	**Detailed**
Gender, female	-1.0	1.5	-1.5	0.8
	[-7.6; 5.6]	[-5.5; 8.6]	[-5.7; 2.7]	[-3.5; 5.0]
Party, Democrat	6.7	-7.3	9.4	1.9
	[5.2; 8.2]	[-27.4; 12.6]	[8.6; 10.3]	[-6.2; 9.8]
Ideology		-17.2		-10.6
		[-44.6; 9.9]		[-23.1; 2.0]
Age		0.0		-0.1
		[-0.5; 0.5]		[-0.3; 0.2]
Hispanic		-5.5		11.3
		[-31.7; 20.8]		[2.7; 19.8]
Asian		1.5		3.4
		[-11.4; 14.4]		[-7.5; 14.3]
African American		13.4		10.6
		[2.4; 24.3]		[-0.6; 21.8]
Born abroad		2.8		-1.2
		[-5.7; 11.1]		[-13.1; 10.8]
Freshman		-5.1		-1.8
		[-19.0; 9.0]		[-7.5; 3.9]
Committee, foreign affairs		10.4		16.3
		[3.8; 17.0]		[10.4; 22.2]
Committee, appropriations		12.4		9.5
		[2.6; 22.2]		[6.3; 12.7]
From the South		10.1		10.9
		[1.9; 18.2]		[7.5; 14.3]
Percent white		0.2		0.1
		[0.0; 0.5]		[0.0; 0.2]
State social liberalism		8.0		1.8
		[4.3; 11.7]		[-6.9; 10.3]
State economic liberalism		3.1		-15.0
		[-9.6; 15.9]		[-29.0; -1.2]
District prosperity		-1.5		2.7
		[-9.2; 6.1]		[-4.7; 10.1]
Percent w/ B.A. degree		0.3		0.1
		[-0.3; 0.9]		[-0.3; 0.5]
Percent foreign born		0.3		0.2
		[0.1; 0.6]		[0.0; 0.5]
Pres. Democrat vote share		-0.6		-0.2
		[-1.2; 0.1]		[-0.9; 0.6]
Data				
# Men	723	723	723	723
# Women	144	144	144	144
# unique Women	85	85	85	85
Congresses	110–111	110–111	110–111	110–111

Table A.4: **Estimates for all coefficients in contacting USAID using all observations.** The models were designed to give the coefficient on gender a substantive interpretation; other coefficients should not be interpreted. Intercept and coefficients on indicators for Congress omitted. The number is the mean estimate, the range gives the 95% confidence interval.

E   Subset analysis using only Democrats

E.1   Roll-call

	Voting yay on aid increase		Voting nay on aid increase	
	Simple	Detailed	Simple	Detailed
Gender, female	-2.2	-2.8	1.3	2.2
	[-6.8; 2.4]	[-7.2; 1.6]	[-2.2; 4.8]	[-1.5; 5.8]
Ideology		-37.3		37.4
		[-67.7; -6.6]		[7.8; 67.1]
Age		-0.1		0.0
		[-0.3; 0.1]		[-0.2; 0.1]
Hispanic		-7.6		-0.3
		[-15.4; 0.3]		[-5.1; 4.6]
Asian		-0.8		4.0
		[-7.8; 6.3]		[-0.5; 8.5]
African American		1.9		-2.3
		[-3.8; 7.7]		[-6.7; 2.1]
Born abroad		11.2		-4.8
		[4.4; 18.0]		[-10.6; 0.9]
Freshman		2.8		-5.4
		[-0.8; 6.3]		[-9.1; -1.7]
Committee, foreign affairs		-2.8		3.4
		[-9.4; 3.9]		[-3.4; 10.2]
Committee, appropriations		3.1		-2.8
		[-0.3; 6.3]		[-5.6; 0.1]
From the South		-1.4		-1.6
		[-6.5; 3.7]		[-7.3; 4.2]
Percent white		0.0		0.0
		[-0.1; 0.1]		[-0.1; 0.1]
State social liberalism		17.2		-20.5
		[7.9; 26.4]		[-32.1; -8.9]
State economic liberalism		30.0		-13.4
		[18.9; 41.0]		[-26.3; -0.3]
District prosperity		-1.5		0.2
		[-5.1; 2.1]		[-3.6; 3.9]
Percent w/ B.A. degree		0.2		-0.2
		[-0.1; 0.5]		[-0.5; 0.1]
Percent foreign born		0.1		-0.1
		[-0.1; 0.3]		[-0.3; 0.1]
Pres. Democrat vote share		-1.4		1.4
		[-1.9; -1.0]		[0.9; 1.9]
Data				
# Men	2055	2055	2055	2055
# Women	283	283	283	283
# unique Women	88	88	88	88
Congresses	97–110	97–110	97–110	97–110

Table A.5: Estimates for all coefficients in roll call voting on foreign aid using only Democrats.
The models were designed to give the coefficient on gender a substantive interpretation; other coefficients should not be interpreted. Intercept and coefficients on indicators for Congress omitted. The number is the mean estimate, the range gives the 95% confidence interval.

E.2 Co-sponsorship

| | Consponsoring aid increases | | Consponsoring aid decreases | |
	Simple	Detailed	Simple	Detailed
Gender, female	0.3	0.4	0.1	0.0
	[-0.4; 1.0]	[0.0; 0.8]	[-0.5; 0.6]	[-0.9; 0.9]
Ideology		-9.5		-7.1
		[-12.2; -6.8]		[-14.5; 0.3]
Age		0.0		0.0
		[0.0; 0.0]		[-0.1; 0.0]
Hispanic		-0.2		0.3
		[-1.3; 0.8]		[-0.3; 0.8]
Asian		-0.4		-0.9
		[-2.3; 1.6]		[-2.8; 1.0]
African American		0.7		0.4
		[-0.3; 1.7]		[-0.6; 1.4]
Born abroad		-0.2		0.6
		[-1.6; 1.2]		[-1.3; 2.5]
Freshman		-0.9		0.1
		[-1.6; -0.3]		[-0.7; 0.9]
Committee, foreign affairs		0.9		0.1
		[-0.1; 1.8]		[-0.6; 0.8]
Committee, appropriations		-0.7		-0.2
		[-1.3; -0.1]		[-0.8; 0.5]
From the South		-0.2		-0.5
		[-0.8; 0.5]		[-1.5; 0.4]
Percent white		0.0		0.0
		[0.0; 0.0]		[0.0; 0.0]
State social liberalism		1.4		0.7
		[0.6; 2.3]		[0.1; 1.3]
State economic liberalism		2.1		-1.4
		[1.1; 3.1]		[-4.2; 1.3]
District prosperity		0.1		-0.4
		[-0.5; 0.6]		[-0.7; 0.0]
Percent w/ B.A. degree		0.1		0.1
		[0.0; 0.1]		[0.0; 0.1]
Percent foreign born		0.0		0.0
		[0.0; 0.0]		[0.0; 0.0]
Pres. Democrat vote share		-0.2		0.0
		[-0.3; -0.2]		[-0.1; 0.2]
Data				
# Men	2394	2394	2394	2394
# Women	371	371	371	371
# unique Women	86	86	86	86
Congresses	99–110	99–110	99–110	99–110

Table A.6: Estimates for all coefficients in cosponsoring legislation on foreign aid using only Democrats. The models were designed to give the coefficient on gender a substantive interpretation; other coefficients should not be interpreted. Intercept and coefficients on indicators for Congress omitted. The number is the mean estimate, the range gives the 95% confidence interval.

E.3 Hearings

	Attend hearings on aid		Support aid at hearings	
	Simple	Detailed	Simple	Detailed
Gender, female	4.5	-2.5	-0.6	6.3
	[-9.9; 19.0]	[-17.2; 12.0]	[-2.2; 1.1]	[-51.7; 71.1]
Ideology		-87.6		27.6
		[-188.8; 13.8]		[-163.8; 171.6]
Age		-0.2		0.1
		[-0.9; 0.6]		[-18.7; 9.0]
Hispanic		-11.3		-4.5
		[-50.0; 28.6]		[-64.2; 48.0]
Asian		-2.5		-5.0
		[-26.9; 26.1]		[-47.6; 44.9]
African American		20.7		-6.3
		[-4.3; 46.8]		[-62.2; 52.8]
Born abroad		4.4		-2.7
		[-30.1; 39.0]		[-30.7; 39.3]
Freshman		-10.7		-0.2
		[-34.5; 13.0]		[-27.0; 21.1]
Committee, foreign affairs		32.6		5.6
		[-12.7; 72.6]		[-48.3; 37.7]
Committee, appropriations		14.7		-8.4
		[-30.1; 63.8]		[-451.6; 361.2]
From the South		-16.1		-10.5
		[-37.8; 4.9]		[-51.9; 24.3]
Percent white		0.0		0.0
		[-0.6; 0.7]		[-1.5; 1.7]
State social liberalism		1.1		-1.3
		[-35.3; 37.8]		[-70.1; 72.1]
State economic liberalism		-1.7		-9.0
		[-106.1; 108.6]		[-110.7; 151.7]
District prosperity		5.4		-0.2
		[-16.0; 24.7]		[-34.0; 36.5]
Percent w/ B.A. degree		0.6		-0.2
		[-1.1; 2.4]		[-6.8; 5.7]
Percent foreign born		0.2		0.1
		[-0.6; 1.1]		[-1.3; 1.4]
Pres. Democrat vote share		-1.1		0.0
		[-3.9; 1.6]		[-10.7; 8.0]
Data				
# Men	192	192	24	24
# Women	50	50	11	11
# unique Women	17	17	5	5
Congresses	110–115	110–115	110–115	110–115

Table A.7: Estimates for all coefficients in attendance and attitudes in aid-related hearings using only Democrats. The models were designed to give the coefficient on gender a substantive interpretation; other coefficients should not be interpreted. Intercept and coefficients on indicators for Congress omitted. The number is the mean estimate, the range gives the 95% confidence interval. Intercepts for separate hearings were also omitted.

E.4 USAID Contact

	Contacting USAID (total)		Contacting USAID (policy)	
	Simple	**Detailed**	**Simple**	**Detailed**
Gender, female	-3.2	-1.9	-2.0	0.3
	[-11.8; 5.3]	[-10.8; 6.9]	[-7.9; 3.9]	[-4.7; 5.4]
Ideology		-22.5		-7.9
		[-63.3; 18.5]		[-26.6; 10.7]
Age		-0.2		-0.1
		[-0.9; 0.5]		[-0.4; 0.2]
Hispanic		-10.5		7.5
		[-27.9; 7.1]		[1.2; 13.9]
Asian		2.0		5.8
		[-9.0; 13.2]		[-2.4; 14.1]
African American		17.7		11.6
		[7.3; 28.0]		[1.6; 21.7]
Born abroad		-7.9		-13.8
		[-10.6; -5.2]		[-18.8; -8.9]
Freshman		0.3		-2.4
		[-18.2; 18.7]		[-11.8; 7.2]
Committee, foreign affairs		12.5		18.2
		[9.2; 15.9]		[15.0; 21.5]
Committee, appropriations		19.0		12.0
		[13.6; 24.4]		[7.2; 16.8]
From the South		-0.8		7.2
		[-3.9; 2.2]		[2.5; 12.0]
Percent white		0.2		0.1
		[-0.1; 0.4]		[0.1; 0.1]
State social liberalism		18.6		7.6
		[17.3; 19.9]		[3.8; 11.4]
State economic liberalism		-28.8		-18.4
		[-56.4; -1.5]		[-32.1; -4.7]
District prosperity		0.4		4.8
		[-8.3; 9.2]		[-3.1; 12.8]
Percent w/ B.A. degree		0.2		-0.1
		[-0.7; 1.0]		[-0.6; 0.5]
Percent foreign born		0.3		0.1
		[0.1; 0.5]		[0.0; 0.1]
Pres. Democrat vote share		-1.0		-0.6
		[-1.8; -0.3]		[-1.2; 0.0]
Data				
# Men	383	383	383	383
# Women	107	107	107	107
# unique Women	63	63	63	63
Congresses	110–111	110–111	110–111	110–111

Table A.8: Estimates for all coefficients in contacting USAID using only Democrats. The models were designed to give the coefficient on gender a substantive interpretation; other coefficients should not be interpreted. Intercept and coefficients on indicators for Congress omitted. The number is the mean estimate, the range gives the 95% confidence interval.

F   Subset analysis using only Republicans

F.1   Roll-call

	Voting yay on aid increase		Voting nay on aid increase	
	Simple	Detailed	Simple	Detailed
Gender, female	2.4	2.6	-1.9	-1.5
	[-3.2; 8.1]	[-2.7; 8.0]	[-7.2; 3.4]	[-7.2; 4.1]
Ideology		-109.2		94.5
		[-133.6; -85.0]		[68.9; 119.6]
Age		0.3		-0.4
		[0.1; 0.6]		[-0.6; -0.1]
Hispanic		-5.7		-6.7
		[-21.2; 9.8]		[-22.5; 9.2]
Asian		-4.7		1.6
		[-19.0; 9.5]		[-13.8; 16.8]
African American		2.9		-5.8
		[-4.0; 9.9]		[-12.2; 0.5]
Born abroad		-7.9		17.7
		[-17.3; 1.5]		[6.2; 29.2]
Freshman		1.4		0.7
		[-3.5; 6.2]		[-3.2; 4.7]
Committee, foreign affairs		5.6		-5.9
		[1.2; 10.0]		[-10.0; -1.6]
Committee, appropriations		3.7		-1.5
		[-0.4; 7.5]		[-6.4; 3.5]
From the South		-16.3		19.6
		[-20.7; -12.0]		[13.7; 25.4]
Percent white		-0.2		0.1
		[-0.4; 0.0]		[-0.1; 0.4]
State social liberalism		-11.5		12.4
		[-16.3; -6.8]		[7.3; 17.5]
State economic liberalism		32.2		-32.6
		[15.8; 48.9]		[-47.2; -17.9]
District prosperity		2.1		-2.6
		[-2.5; 6.7]		[-8.1; 2.9]
Percent w/ B.A. degree		0.0		-0.1
		[-0.3; 0.3]		[-0.4; 0.2]
Percent foreign born		0.1		-0.1
		[-0.1; 0.4]		[-0.4; 0.1]
Pres. Democrat vote share		-0.2		0.5
		[-0.4; 0.1]		[0.2; 0.7]
Data				
# Men	1844	1844	1844	1844
# Women	141	141	141	141
# unique Women	48	48	48	48
Congresses	97–110	97–110	97–110	97–110

Table A.9: Estimates for all coefficients in roll call voting on foreign aid using only Republicans.
The models were designed to give the coefficient on gender a substantive interpretation; other coefficients should not be interpreted. Intercept and coefficients on indicators for Congress omitted. The number is the mean estimate, the range gives the 95% confidence interval.

F.2 Co-sponsorship

	Consponsoring aid increases		Consponsoring aid decreases	
	Simple	Detailed	Simple	Detailed
Gender, female	-0.3	-0.2	-0.1	-0.3
	[-1.2; 0.5]	[-0.9; 0.5]	[-1.3; 1.2]	[-1.3; 0.7]
Ideology		-6.1		5.0
		[-8.1; -4.2]		[-6.5; 16.4]
Age		0.0		0.1
		[0.0; 0.0]		[0.0; 0.1]
Hispanic		-1.1		1.9
		[-1.9; -0.4]		[-0.7; 4.5]
Asian		0.9		5.0
		[-0.3; 2.0]		[1.8; 8.2]
African American		-1.2		-1.6
		[-1.5; -0.9]		[-2.6; -0.6]
Born abroad		0.0		0.4
		[-0.7; 0.7]		[-1.8; 2.6]
Freshman		-0.1		1.3
		[-0.4; 0.2]		[-1.0; 3.7]
Committee, foreign affairs		2.1		0.7
		[1.1; 3.2]		[-0.1; 1.5]
Committee, appropriations		-0.6		-0.7
		[-0.9; -0.3]		[-1.3; -0.2]
From the South		0.3		-0.4
		[0.0; 0.6]		[-1.5; 0.6]
Percent white		0.0		0.0
		[0.0; 0.0]		[-0.1; 0.1]
State social liberalism		0.0		0.9
		[-0.6; 0.6]		[-0.7; 2.5]
State economic liberalism		0.3		4.1
		[-1.1; 1.6]		[1.3; 6.9]
District prosperity		0.1		0.4
		[-0.2; 0.5]		[-1.0; 1.8]
Percent w/ B.A. degree		0.0		-0.1
		[0.0; 0.1]		[-0.2; 0.0]
Percent foreign born		0.0		0.1
		[0.0; 0.0]		[-0.1; 0.2]
Pres. Democrat vote share		0.0		-0.1
		[0.0; 0.1]		[-0.2; 0.0]
Data				
# Men	2262	2262	2262	2262
# Women	187	187	187	187
# unique Women	45	45	45	45
Congresses	99–110	99–110	99–110	99–110

Table A.10: Estimates for all coefficients in cosponsoring legislation on foreign aid using only Republicans. The models were designed to give the coefficient on gender a substantive interpretation; other coefficients should not be interpreted. Intercept and coefficients on indicators for Congress omitted. The number is the mean estimate, the range gives the 95% confidence interval.

F.3 Hearings

	Attend hearings on aid		Support aid at hearings	
	Simple	Detailed	Simple	Detailed
Gender, female	-5.0	-18.4	-0.8	1.8
	[-30.6; 21.6]	[-48.7; 15.0]	[-2.3; 0.7]	[-41.4; 53.6]
Ideology		-35.3		-6.0
		[-137.3; 57.8]		[-60.1; 40.2]
Age		1.5		-1.9
		[0.1; 2.8]		[-20.1; 12.7]
Hispanic		-18.8		2.3
		[-127.8; 100.6]		[-60.4; 74.9]
Asian		NA		0.0
		[NA; NA]		[-59.9; 89.2]
African American		-28.6		0.0
		[-77.3; 15.0]		[-22.2; 19.2]
Born abroad		38.4		-7.9
		[-61.0; 131.8]		[-96.5; 73.5]
Freshman		12.6		4.1
		[-17.4; 42.3]		[-35.0; 54.7]
Committee, foreign affairs		-2.9		9.1
		[-47.8; 50.2]		[-122.5; 151.2]
Committee, appropriations		-17.6		7.3
		[-106.5; 51.0]		[-79.9; 131.4]
From the South		-2.7		0.2
		[-37.4; 35.5]		[-17.7; 27.2]
Percent white		-0.1		-0.1
		[-1.8; 1.4]		[-2.2; 3.3]
State social liberalism		54.5		-2.1
		[-2.8; 110.6]		[-60.0; 37.7]
State economic liberalism		66.2		-4.2
		[-139.9; 257.0]		[-78.3; 50.0]
District prosperity		-5.6		-0.9
		[-51.2; 38.9]		[-30.5; 33.2]
Percent w/ B.A. degree		0.2		0.2
		[-3.4; 3.6]		[-13.5; 15.7]
Percent foreign born		0.1		0.2
		[-2.8; 2.8]		[-2.6; 3.8]
Pres. Democrat vote share		-2.5		-0.7
		[-6.0; 1.7]		[-15.4; 14.2]
Data				
# Men	230	230	34	34
# Women	15	15	3	3
# unique Women	5	5	2	2
Congresses	110–115	110–115	110–115	110–115

Table A.11: Estimates for all coefficients in attendance and attitudes in aid-related hearings using only Republicans. The models were designed to give the coefficient on gender a substantive interpretation; other coefficients should not be interpreted. Intercept and coefficients on indicators for Congress omitted. The number is the mean estimate, the range gives the 95% confidence interval. Intercepts for separate hearings were also omitted.

F.4 USAID Contact

	Contacting USAID (total)		Contacting USAID (policy)	
	Simple	Detailed	Simple	Detailed
Gender, female	5.6	5.2	-0.1	-0.9
	[-0.8; 12.0]	[-0.5; 10.9]	[-3.9; 3.7]	[-6.0; 4.2]
Ideology		-2.4		-2.7
		[-41.8; 36.5]		[-23.2; 17.1]
Age		0.3		0.2
		[-0.3; 1.0]		[-0.3; 0.7]
Hispanic		58.2		45.2
		[28.4; 88.6]		[8.4; 82.0]
Asian		-13.8		-22.2
		[-41.8; 14.0]		[-37.9; -6.5]
African American		-10.8		-3.8
		[-25.9; 5.1]		[-18.4; 12.1]
Born abroad		4.8		18.8
		[-10.3; 20.1]		[2.5; 35.0]
Freshman		-13.3		0.0
		[-28.3; 1.7]		[-7.3; 7.2]
Committee, foreign affairs		-7.8		4.5
		[-19.6; 4.0]		[-0.2; 9.1]
Committee, appropriations		5.5		7.6
		[-13.9; 24.9]		[2.2; 12.6]
From the South		3.5		1.2
		[-10.6; 17.5]		[-3.2; 5.8]
Percent white		-0.2		-0.2
		[-0.8; 0.4]		[-0.4; 0.1]
State social liberalism		9.2		-4.9
		[3.6; 15.0]		[-18.7; 8.8]
State economic liberalism		90.6		-2.4
		[85.6; 94.9]		[-35.6; 30.4]
District prosperity		-7.6		-6.3
		[-9.8; -5.0]		[-15.0; 2.6]
Percent w/ B.A. degree		1.1		1.0
		[0.9; 1.3]		[0.8; 1.3]
Percent foreign born		-0.3		0.0
		[-0.8; 0.1]		[-0.2; 0.2]
Pres. Democrat vote share		-1.2		0.4
		[-1.7; -0.6]		[-0.8; 1.6]
Data				
# Men	340	340	340	340
# Women	37	37	37	37
# unique Women	22	22	22	22
Congresses	110–111	110–111	110–111	110–111

Table A.12: Estimates for all coefficients in contacting USAID using only Republicans. The models were designed to give the coefficient on gender a substantive interpretation; other coefficients should not be interpreted. Intercept and coefficients on indicators for Congress omitted. The number is the mean estimate, the range gives the 95% confidence interval.

G Subset analysis using 106th Congress and later

G.1 Roll-call

	Voting yay on aid increase		Voting nay on aid increase	
	Simple	Detailed	Simple	Detailed
Gender, female	-0.4	-0.7	-0.9	-0.3
	[-9.1; 8.3]	[-7.6; 6.2]	[-7.9; 6.2]	[-6.1; 5.5]
Party, Democrat	44.3	-13.9	-45.7	2.5
	[20.1; 68.8]	[-60.6; 32.3]	[-71.0; -20.3]	[-46.1; 52.1]
Ideology		-75.0		61.7
		[-128.6; -21.8]		[5.5; 118.0]
Age		-0.1		0.1
		[-0.5; 0.2]		[-0.3; 0.5]
Hispanic		-12.7		1.6
		[-26.8; 1.4]		[-12.6; 15.9]
Asian		-4.0		5.2
		[-11.9; 4.0]		[-2.4; 12.9]
African American		7.4		-8.0
		[1.3; 13.6]		[-13.6; -2.4]
Born abroad		6.4		1.6
		[0.0; 12.8]		[-3.4; 6.7]
Freshman		1.3		-5.7
		[-3.3; 6.0]		[-8.8; -2.7]
Committee, foreign affairs		-5.5		4.2
		[-9.3; -1.8]		[0.6; 7.8]
Committee, appropriations		9.2		-6.6
		[4.6; 13.9]		[-12.9; -0.4]
From the South		-8.9		8.2
		[-14.8; -3.0]		[0.6; 16.0]
Percent white		0.2		-0.2
		[0.0; 0.3]		[-0.4; 0.0]
State social liberalism		6.5		-8.6
		[-4.8; 17.8]		[-20.4; 3.4]
State economic liberalism		19.6		1.6
		[-9.3; 47.9]		[-28.0; 30.7]
District prosperity		3.9		-5.1
		[-1.1; 8.9]		[-9.6; -0.5]
Percent w/ B.A. degree		-0.1		0.1
		[-0.4; 0.2]		[-0.2; 0.5]
Percent foreign born		0.1		-0.1
		[-0.1; 0.4]		[-0.4; 0.1]
Pres. Democrat vote share		-0.8		0.6
		[-1.5; -0.1]		[0.0; 1.2]
Data				
# Men	1108	1108	1108	1108
# Women	186	186	186	186
# unique Women	93	93	93	93
Congresses	106–110	106–110	106–110	106–110

Table A.13: Estimates for all coefficients in roll call voting on foreign aid using observations since 106th Congress. The models were designed to give the coefficient on gender a substantive interpretation; other coefficients should not be interpreted. Intercept and coefficients on indicators for Congress omitted. The number is the mean estimate, the range gives the 95% confidence interval.

G.2 Co-sponsorship

	Consponsoring aid increases		Consponsoring aid decreases	
	Simple	Detailed	Simple	Detailed
Gender, female	0.2	0.3	-0.2	-0.2
	[-0.6; 1.0]	[-0.1; 0.7]	[-0.6; 0.2]	[-0.4; 0.1]
Party, Democrat	2.6	-4.0	-0.7	-2.3
	[-0.1; 5.2]	[-6.7; -1.3]	[-5.0; 3.7]	[-6.3; 1.7]
Ideology		-7.7		-2.8
		[-11.4; -3.9]		[-6.1; 0.5]
Age		0.0		0.0
		[0.0; 0.0]		[-0.1; 0.0]
Hispanic		-0.1		-0.6
		[-1.4; 1.1]		[-1.7; 0.4]
Asian		-1.3		-0.7
		[-2.3; -0.3]		[-1.4; -0.1]
African American		-0.3		-0.5
		[-0.7; 0.2]		[-1.0; 0.0]
Born abroad		-0.7		-0.1
		[-1.8; 0.4]		[-0.8; 0.7]
Freshman		-0.8		1.7
		[-1.4; -0.2]		[-0.2; 3.6]
Committee, foreign affairs		1.7		0.2
		[0.6; 2.9]		[-0.5; 0.9]
Committee, appropriations		-0.9		-0.1
		[-1.4; -0.4]		[-0.4; 0.3]
From the South		0.3		1.1
		[0.0; 0.6]		[0.0; 2.1]
Percent white		0.0		0.0
		[-0.1; 0.0]		[0.0; 0.1]
State social liberalism		0.0		0.5
		[-0.9; 0.8]		[0.0; 0.9]
State economic liberalism		0.7		-1.3
		[-0.9; 2.3]		[-5.1; 2.5]
District prosperity		0.2		-0.4
		[-0.2; 0.6]		[-0.9; 0.1]
Percent w/ B.A. degree		0.0		0.0
		[0.0; 0.1]		[0.0; 0.1]
Percent foreign born		0.0		0.0
		[-0.1; 0.0]		[-0.1; 0.1]
Pres. Democrat vote share		-0.1		0.0
		[-0.1; 0.0]		[-0.1; 0.1]
Data				
# Men	1851	1851	1851	1851
# Women	313	313	313	313
# unique Women	93	93	93	93
Congresses	106–110	106–110	106–110	106–110

Table A.14: Estimates for all coefficients in cosponsoring legislation on foreign aid using observations since 106th Congress. The models were designed to give the coefficient on gender a substantive interpretation; other coefficients should not be interpreted. Intercept and coefficients on indicators for Congress omitted. The number is the mean estimate, the range gives the 95% confidence interval.

G.3 Hearings

	Attend hearings on aid		Support aid at hearings	
	Simple	Detailed	Simple	Detailed
Gender, female	3.1	2.1	-0.6	-0.3
	[-9.0; 15.7]	[-10.1; 14.4]	[-1.5; 0.3]	[-4.1; 3.5]
Party, Democrat	-9.9	-55.3	0.5	-1.6
	[-24.0; 3.4]	[-108.5; -2.9]	[-0.3; 1.4]	[-8.7; 6.6]
Ideology		-51.2		-4.3
		[-130.4; 24.3]		[-15.3; 6.9]
Age		0.2		-0.1
		[-0.5; 0.9]		[-0.2; 0.1]
Hispanic		1.8		-1.6
		[-29.1; 35.6]		[-7.6; 4.6]
Asian		-5.0		0.2
		[-27.6; 20.5]		[-4.9; 4.9]
African American		23.7		-0.4
		[2.0; 45.5]		[-5.7; 5.2]
Born abroad		1.7		0.7
		[-28.4; 30.5]		[-3.7; 5.2]
Freshman		-4.6		0.6
		[-21.2; 13.3]		[-2.4; 3.2]
Committee, foreign affairs		27.2		-0.6
		[-8.5; 61.1]		[-5.0; 3.7]
Committee, appropriations		16.9		0.1
		[-19.4; 58.5]		[-8.8; 8.1]
From the South		-3.0		0.5
		[-19.8; 13.4]		[-2.7; 4.3]
Percent white		0.2		0.0
		[-0.4; 0.7]		[-0.1; 0.2]
State social liberalism		13.8		-0.5
		[-14.6; 42.5]		[-5.9; 5.3]
State economic liberalism		19.9		2.2
		[-64.3; 110.0]		[-10.4; 14.5]
District prosperity		6.4		-0.2
		[-11.0; 23.0]		[-3.3; 2.7]
Percent w/ B.A. degree		0.3		0.0
		[-1.2; 1.8]		[-0.3; 0.3]
Percent foreign born		0.1		0.0
		[-0.6; 0.8]		[-0.1; 0.1]
Pres. Democrat vote share		-0.6		0.0
		[-2.6; 1.5]		[-0.4; 0.4]
Data				
# Men	421	421	57	57
# Women	66	66	15	15
# unique Women	20	20	7	7
Congresses	110–115	110–115	110–115	110–115

Table A.15: Estimates for all coefficients in attendance and attitudes in aid-related hearings using observations since 106th Congress. The models were designed to give the coefficient on gender a substantive interpretation; other coefficients should not be interpreted. Intercept and coefficients on indicators for Congress omitted. The number is the mean estimate, the range gives the 95% confidence interval. Intercepts for separate hearings were also omitted.