

# Constituents' Responses to LGB Representatives in Congress

## Online appendix

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### Contents

<b>A1 Details of data and survey items</b>	<b>1</b>
A1.1 Descriptive statistics . . . . .	1
A1.2 Survey question wording and variable coding . . . . .	3
<b>A2 LGB MCs included in the study</b>	<b>5</b>
A2.1 How sensitive are the results to specific LGB MCs? . . . . .	7
A2.2 How politically distinctive are the districts represented by LGB MCs? . . . . .	8
A2.3 How do LGB constituents represented by LGB MCs differ from those represented by straight MCs? . . . . .	9
<b>A3 Replicating results for LGB respondents</b>	<b>11</b>
<b>A4 Replicating approval results by constituent party</b>	<b>13</b>
<b>A5 Replicating information results by partisan congruence</b>	<b>14</b>

# A1 Details of data and survey items

## A1.1 Descriptive statistics

Individual-level continuous variables

	Mean	SD	Min.	Max.	Valid N
MC approval	0.51	0.36	0	1	237,431
Congress approval	0.31	0.30	0	1	290,539
MC ideology	0.54	0.34	0	1	202,822
Education	0.52	0.30	0	1	329,168
Religiosity	0.59	0.39	0	1	328,748
Age (decades)	4.88	1.74	1.8	10	329,168
Income	0.35	0.22	0	1	329,168
Interest in politics	0.72	0.34	0	1	328,579

Individual-level categorical variables

	%	Valid N
Know MC's party	64.7	328,518
Can rate MC approval	72.2	328,962
Can rate MC ideology	68.3	297,058
LGBT identity	10.6	307,169
Woman	55.7	329,168
Race/ethnicity		
White	70.5	
Asian	3.1	
Black	11.8	
Hispanic	9.7	
Other race	4.9	
Total	100.0	329,168
Partisan congruence		
Same party as MC	50.1	
Other party from MC	34.0	
Independent	15.9	
Total	100.0	318,113

District- and MC-level continuous variables

	Mean	SD	Min.	Max.	Valid N
Decades in office	1.01	0.88	0	5.30	3,632
Democratic vote share	0.52	0.17	0.17	0.97	3,525
District competition	0.28	0.19	0.00	0.94	3,525
MC ideology	0.06	0.46	-0.80	0.85	3,040

Note: Means and standard deviations based on district/MC-level observations. In regression models, these variables are centered around the district-level means.

MC-level categorical variables

	%	Valid N
LGB MC	1.6	3,632
Woman MC	23.8	3,632
MC race		
Asian	2.7	3,632
Black	12.1	3,632
Hispanic	8.6	3,632

Note: Percentages based on MC-level observations. MCs can be multiple races.

## A1.2 Survey question wording and variable coding

Question wording and response options for the survey items are shown below. Notes on the coding are *italicized*. All variables are coded to range between 0 and 1.

### Dependent variables

**MC approval:** Do you approve of the way each is doing their job. . . [Name of current House Representative]? Strongly approve; Somewhat approve; Somewhat disapprove; Strongly disapprove; Not sure. *Recoded to range continuously from 1 to 0; “Not sure” responses coded as missing.*

**Can rate MC approval:** *Recodes MC approval to 0 (for “Not sure” responses) or 1 (all other responses).*

**Know MC’s party:** Please indicate whether you’ve heard of this person and if so which party he or she is affiliated with. . . [Name of current House Representative]? Republican; Democrat; Other Party/Independent; Never heard of person. *Correct responses coded as 1, all others as 0.*

**MC ideology:** How would you rate each of the following individuals and groups. . . [Name of current House Representative]? Very liberal; Liberal; Somewhat liberal; Middle of the road; Somewhat conservative; Conservative; Very conservative; Not sure. *Recoded to range continuously from 1 to 0; “Not sure” responses coded as missing.*

**Can rate MC ideology:** *Recodes MC ideology to 0 (for “Not sure” responses) or 1 (all other responses).*

**Congress approval:** Do you approve of the way each is doing their job. . . The U.S. Congress? Strongly approve; Somewhat approve; Somewhat disapprove; Strongly disapprove; Not sure. *Recoded to range continuously from 1 to 0; “Not sure” responses coded as missing. In 2017 and 2019, “The U.S. Congress” was replaced by “The U.S. House of Representatives”.*

### Independent variables

**LGBT identity:** *Constructed from two separate items.* With which group do you most closely identify? Heterosexual/straight; Lesbian/gay woman; Gay man; Bisexual. *2016–2020:* Have you ever undergone any part of a process (including any thought or action) to change your gender / perceived gender from the one you were assigned at birth? This may include steps such as changing the type of clothes you wear, name you are known by or undergoing surgery. Yes; No. *2021-2023:* Do you identify as transgender? Yes; No. *Respondents who answered “Lesbian/gay woman”, “Gay man”, “Bisexual” to the first item and/or “Yes” to the*

second are coded as 1, all others as 0.

**Partisan congruence with MC:** Constructed from CES coding of respondent's partisan identification. Strong, weak, and leaning Democrats [Republicans] with a Democratic [Republican] MC are coded as "Same party as MC". Strong, weak, and leaning Democrats [Republicans] with a Republican [Democratic] MC are coded as "Other party as MC". Pure Independents are coded as "Independent".

**Race/ethnicity:** Constructed from CES coding of respondent's racial/ethnic identification. Dichotomous variables represent White, Black, Hispanic, Asian and another race.

**Gender:** Constructed from CES coding of respondent's gender. Those who identify as women are coded as 1, all others coded as 0.

**Education:** What is the highest level of education you have completed? Did not graduate from high school; High school graduate; Some college, but no degree (yet); 2-year college degree; 4-year college degree; Postgraduate degree (MA, MBA, MD, JD, PhD). Recoded to range continuously from 0 to 1.

**Religiosity:** How important is religion in your life? Not at all important; Not too important; Somewhat important; Very important Recoded to range continuously from 0 to 1.

**Age:** In what year were you born? Recoded to calculate respondent's age at the time of the survey. Age is then divided by 10 (i.e., measured in decades) to aid interpretation of the coefficients.

**Interest in politics:** Some people seem to follow what's going on in the government and public affairs most of the time, whether there's an election or not. Others aren't that interested. Would you say you follow what's going on in government and public affairs...? Hardly at all; Only now and then; Some of the time; Most of the time. Recoded to range continuously from 0 to 1. "Don't know" responses are coded as 0.

**Income:** Thinking back over the last year, what was your family's annual income? Less than \$10,000; \$10,000–\$19,000; \$20,000–\$29,999; \$30,000–\$39,999; \$40,000–\$49,999; \$50,000–\$59,999; \$60,000–\$69,999; \$70,000–\$79,999; \$80,000–\$99,999; \$100,000–\$119,999; \$120,000–\$149,999; \$150,000–\$199,999; \$200,000–\$249,999; \$250,000–\$349,999; \$350,000–\$499,000; \$500,000 or more. Recoded to range continuously from 0 to 1. "Prefer not to say" responses are coded as the mean value on the scale for that survey year.

## **A2 LGB MCs included in the study**

As noted in the main text, there have been only a small number of out LGB MCs in the time-frame covered by the CES surveys. This raises a number of concerns — in this appendix, I provide some evidence that speaks to each of them.

To begin, Table A1 lists all of the LGB MCs included in the sample, along with the CES survey years in which they were in office, and the total number of their LGBT and straight respondents captured by the CES .

**Table A1: LGB MCs included in study, by survey year**

	2016	2017	2018	2019	2020	2021	2022	2023	N LGBT constituents	N straight constituents
Becca Balint (D-VT)	✓	✓	✓	✓	✓	✓	✓	✓	4	36
David Cicilline (D-RI)		✓	✓	✓	✓	✓	✓	✓	70	391
Angie Craig (D-MN)		✓	✓	✓	✓	✓	✓	✓	20	312
Sharice Davids (D-KS)		✓	✓	✓	✓	✓	✓	✓	45	336
Robert Garcia (D-CA)								✓	11	121
Mondaire Jones (D-NY)						✓	✓		12	148
Sean Patrick Maloney (D-NY)	✓	✓	✓	✓	✓	✓	✓	✓	68	555
Chris Pappas (D-NH)				✓	✓	✓	✓	✓	59	425
Mark Pocan (D-WI)	✓	✓	✓	✓	✓	✓	✓	✓	104	863
Jared Polis (D-CO)	✓	✓	✓						23	276
George Santos (R-NY) <sup>a</sup>								✓	2	38
Kyrsten Sinema (D-AZ)	✓	✓	✓						58	330
Eric Sorensen (D-IL)								✓	6	34
Mark Takano (D-CA)	✓	✓	✓	✓	✓	✓	✓	✓	40	411
Ritchie Torres (D-NY)						✓	✓	✓	38	193
<b>Total</b>									<b>560</b>	<b>4,469</b>

<sup>a</sup>Santos served in the House from January to December 2023.

Note: Checkmarks indicate that the LGB MC was serving in the House at the time of that year's CES survey. The total number of LGBT and of straight cisgender constituents is calculated by pooling across survey years.

## A2.1 How sensitive are the results to specific LGB MCs?

One concern raised by Table A1 is that there is a small overall number of LGB MCs, whose constituents do not appear equally in the pooled CES data. Rep. Mark Pocan of Wisconsin represents the largest proportion of respondents in the sample (19% of all respondents represented by an LGB MC are from his district); Rep. Sean Patrick Maloney is the only other MC whose constituents make up more than 10% of all those represented by an LGB MC. This opens the potential for some unique aspect of these two MCs not captured in the regression models to skew the estimates of being represented by an LGB MC.

The results reported in the main paper, however, are substantively unchanged when either of the two MCs is excluded from the analysis (the precision of the estimates does decrease somewhat given the lower sample size). For example, Table A2 shows the key coefficients from model (a) from Table 1 in the main text, predicting approval of the MC’s job.

**Table A2:** Replicating model (a) from Table 1, excluding constituents of Rep. Mark Pocan (D-WI) and Rep. Sean Patrick Maloney (D-NY) in turn

	Including all LGB MCs	Excluding Rep. Pocan	Excluding Rep. Maloney
Intercept	0.31 (0.00) <sup>***</sup>	0.31 (0.00) <sup>***</sup>	0.31 (0.00) <sup>***</sup>
LGBT respondent	0.01 (0.00) <sup>***</sup>	0.01 (0.00) <sup>***</sup>	0.01 (0.00) <sup>***</sup>
LGB MC	0.01 (0.01)	−0.00 (0.01)	0.01 (0.01)
LGBT respondent × LGB MC	0.05 (0.01) <sup>***</sup>	0.05 (0.02) <sup>**</sup>	0.06 (0.02) <sup>***</sup>
N respondents	216,516	215,781	216,049
N MC/district observations	3,519	3,511	3,512

<sup>\*\*\*</sup> $p < 0.001$ ; <sup>\*\*</sup> $p < 0.01$ ; <sup>\*</sup> $p < 0.05$ ; <sup>†</sup> $p < 0.1$

Note: Linear regression models predicting approval of MC, as in Table 1 model (a). All other covariates from that model are included, but not shown here.

Table A2 shows that the estimates do not change substantively whether Rep. Pocan’s constituents or Rep. Maloney’s constituents are excluded from the sample. This suggests that, although each legislator’s constituents make up a large share of those represented by LGB MCs in the dataset, they are not unduly influencing the estimates presented in the text. The same conclusion is true for the other models shown in Tables 1–3 in the main text.

## A2.2 How politically distinctive are the districts represented by LGB MCs?

A second concern with the small number of LGB MCs included in the study is that the districts they represent could be politically different from those of straight MCs, leading to biased estimates. The data allow us to compare districts represented by LGB MCs and by straight MCs on two key measures: their two-party vote for the Democratic nominee in the previous presidential election, and how competitive the district is in presidential elections.

Table A3 presents the means of these two variables for the district-year observations in the sample. The LGB MCs in this study represent districts that are, on average, more Democratic and less competitive in presidential elections than those represented by straight MCs. LGB MCs' districts were around 8 points more Democratic than straight MCs' districts. This suggests that the types of voters represented by LGB MCs may be systematically more liberal than those represented by straight MCs, which justifies the inclusion of these district-level variables in the regression models as controls.

**Table A3:** Differences between districts represented by straight MCs and LGB MCs

	Districts represented by straight MCs	Districts represented by LGB MCs	Difference in means
Democratic vote share	0.52	0.60	-0.08***
District competition	0.28	0.21	0.08***

\*\*\* $p < 0.001$

Note: Cells represent mean values. All variables coded on a 0–1 scale. Unit of analysis is the district-year observation.

At the same time, the differences between districts represented by LGB MCs and by straight MCs are smaller than other differences based on MCs' race, ethnicity, or gender. In this sample, Black MCs represent districts that are 22 points more Democratic than white MCs; the equivalent number for both Hispanic MCs and Asian MCs is 13 points more Democratic. Similarly, women MCs represent districts that are on average 11 points more Democratic than men MCs'.

### A2.3 How do LGB constituents represented by LGB MCs differ from those represented by straight MCs?

The analyses in the main text rest on a relatively small number of LGBT respondents represented by LGB MCs (N=560). One concern is that they may differ systematically from LGBT respondents represented by straight MCs in ways that bias the estimates of being descriptively represented. To assess this, Table A4 calculates the mean value of the main respondent-level independent variables in the regression models for LGBT constituents represented by straight MCs, and LGBT constituents represented by LGB MCs.

**Table A4:** Means of key independent variables among LGBT constituents represented by straight MCs and by LGB MCs

	LGBT respondents represented by straight MCs	LGBT respondents represented by LGB MCs	Difference in means
<i>Respondent-level variables</i>			
Same party as MC	0.50	0.76	-0.26***
Other party from MC	0.36	0.10	0.26***
Independents	0.14	0.15	-0.01
Democrat	0.71	0.76	-0.05*
White	0.68	0.70	-0.02
Asian	0.03	0.02	0.02**
Black	0.10	0.07	0.03**
Hispanic	0.12	0.15	-0.03*
Woman	0.50	0.51	-0.01
Education	0.54	0.53	0.00
Religiosity	0.42	0.37	0.05**
Age	3.99	4.18	-0.19**
Interest in politics	0.73	0.75	-0.03
Income	0.33	0.34	-0.01

\*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$

Note: All variables coded on a 0–1 scale, except for age, which is measured in decades.

The major differences between the two groups of LGBT respondents largely concern the partisan congruence measures. LGBT respondents represented by straight MCs are substantially less likely to share a partisan identity with their MC (50% rather than 76%) and correspondingly more likely to be a different party from their MC. This is largely a function of almost all the LGB MCs in the study being Democrats, and the high rate of Democratic

partisanship among LGBT Americans (which itself differs only marginally across these districts — 71% of LGBT respondents with straight MCs are Democrats, compared to 76% of LGBT respondents with LGB MCs). These differences reinforce the importance of controlling for partisan congruence in the initial models, and analyzing the results by congruence.

The other variables show either null or substantively minor differences between the groups of respondents. LGBT respondents represented by straight MCs are marginally more likely to be people of color, religious, and younger, than those represented by LGB MCs. There are no significant differences in their levels of education, income, interest in politics, or gender, however.

### **A3 Replicating results for LGB respondents**

The main text provides estimates for how LGBT constituents view LGB MCs. In this section, I briefly replicate the results looking only at how LGB constituents view LGB MCs. Table A5 replicates Tables 1, 2, and 3 in the main text.

**Table A5:** Replicating models from Tables 1–3 with LGB identity

	(a) Approve of MC's job	(b) Approve of Congress	(c) Know MC's party	(d) Can rate MC's job	(e) Can rate MC's ideology	(f) Perceived MC ideology
Intercept	0.32 (0.00)**	0.33 (0.00)**	-3.23 (0.03)**	-1.97 (0.03)**	-2.50 (0.03)**	0.71 (0.05)**
LGB respondent	-0.01 (0.00)**	-0.02 (0.00)**	0.10 (0.02)**	0.05 (0.02)**	0.07 (0.02)**	0.21 (0.03)**
LGB MC	0.00 (0.01)	0.01 (0.01)	0.43 (0.08)**	0.46 (0.10)**	0.38 (0.08)**	-0.24 (0.08)**
LGB respondent × LGB MC	0.07 (0.02)**	-0.02 (0.01)	0.10 (0.13)	0.04 (0.13)	-0.02 (0.14)	-0.07 (0.22)
<i>Respondent-level controls</i>						
Same party as MC	0.28 (0.00)**	0.11 (0.00)**	0.57 (0.01)**	0.37 (0.01)**	0.51 (0.01)**	0.13 (0.02)**
Other party from MC	-0.18 (0.00)**	0.10 (0.00)**	0.27 (0.01)**	0.21 (0.01)**	0.35 (0.01)**	0.20 (0.02)**
Asian	0.01 (0.00)**	0.04 (0.00)**	-0.21 (0.03)**	-0.26 (0.03)**	-0.21 (0.03)**	-0.17 (0.05)**
Black	0.03 (0.00)**	0.03 (0.00)**	-0.04 (0.02)**	0.00 (0.02)**	-0.06 (0.02)**	0.13 (0.03)**
Hispanic	-0.00 (0.00)**	0.02 (0.00)**	-0.18 (0.02)**	-0.09 (0.02)**	-0.03 (0.02)	0.25 (0.03)**
Other race	-0.02 (0.00)**	-0.03 (0.00)**	0.01 (0.02)	-0.07 (0.02)**	-0.02 (0.02)	-0.06 (0.04)†
Women	0.01 (0.00)**	0.02 (0.00)**	-0.30 (0.01)**	-0.45 (0.01)**	-0.47 (0.01)**	0.06 (0.01)**
Education	0.00 (0.00)†	-0.04 (0.00)**	1.01 (0.02)**	0.54 (0.02)**	0.74 (0.02)**	0.23 (0.03)**
Religiosity	0.05 (0.00)**	0.06 (0.00)**	-0.18 (0.01)**	0.20 (0.01)**	0.16 (0.01)**	-0.15 (0.02)**
Age	0.01 (0.00)**	-0.02 (0.00)**	0.34 (0.00)**	0.28 (0.00)**	0.22 (0.00)**	-0.00 (0.00)
Interest in politics	0.01 (0.00)**	-0.07 (0.00)**	1.99 (0.02)**	1.76 (0.02)**	2.12 (0.02)**	0.23 (0.03)**
Income	0.01 (0.00)**	-0.02 (0.00)**	0.82 (0.02)**	0.45 (0.03)**	0.68 (0.03)**	-0.03 (0.04)
<i>MC/district-level controls</i>						
Democrat MC	0.04 (0.00)**	0.01 (0.00)**	-0.04 (0.03)	0.04 (0.04)	-0.02 (0.03)	-2.94 (0.05)**
Black MC	-0.01 (0.00)**	0.00 (0.00)	0.28 (0.04)**	0.08 (0.05)†	0.13 (0.04)**	0.21 (0.03)**
Asian MC	0.01 (0.01)*	0.02 (0.01)*	0.22 (0.07)**	-0.05 (0.08)	0.08 (0.06)	-0.06 (0.06)
Hispanic MC	-0.01 (0.00)*	0.02 (0.00)**	0.21 (0.04)**	0.08 (0.05)†	0.12 (0.04)**	0.13 (0.03)**
Woman MC	0.00 (0.00)	0.01 (0.00)**	0.27 (0.03)**	0.20 (0.03)**	0.24 (0.02)**	-0.17 (0.02)**
Decades in office	-0.00 (0.00)	0.00 (0.00)†	0.11 (0.01)**	0.15 (0.02)**	0.13 (0.01)**	0.06 (0.01)**
Democratic vote share	-0.02 (0.01)**	0.03 (0.01)**	-0.10 (0.11)	-0.19 (0.14)	-0.02 (0.10)	0.36 (0.09)**
District competition	0.02 (0.01)**	0.01 (0.01)*	-0.26 (0.06)**	-0.25 (0.08)**	-0.26 (0.06)**	0.04 (0.04)
NOMINATE score						0.96 (0.06)**
N respondents	215,971	261,129	290,116	290,382	262,239	153,879
N MC/district observations	3,519	3,520	3,523	3,522	3,377	2,810

\*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; † $p < 0.1$

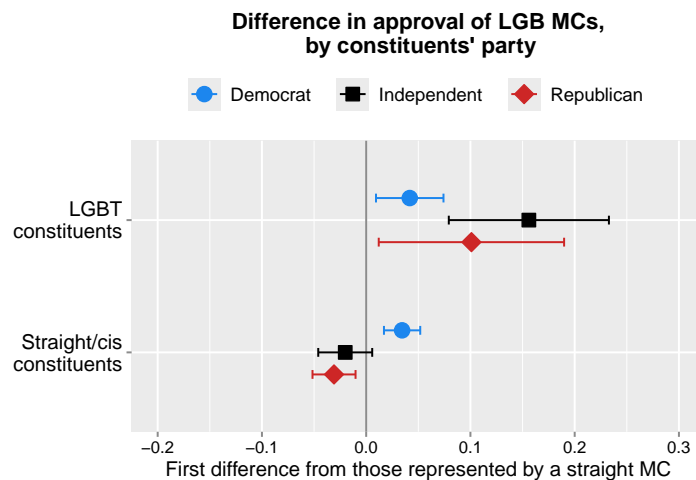
Note: Models (a), (b), and (f) are linear regressions predicting continuous dependent variables; models (c)–(e) are logistic regressions predicting binary dependent variables.

## A4 Replicating approval results by constituent party

As the main text notes, the estimates in Figure 1(b) show the difference in approval of LGB MCs by partisan congruence between the MC and constituent. Since all but one of the LGB MCs in the dataset are Democrats, the estimates for respondents with the same party as the MC are essentially estimates for respondents who are Democrats. In other words, we cannot easily separate how partisan congruence moderates the impact of MC sexuality from how partisanship moderates it. To demonstrate this, I fit a similar model to model (b) in Table 1, this time including the respondent's own party ID and its interaction with the MC's party affiliation in place of the partisan congruence measure.

The estimated first differences, which parallel those shown in Figure 1(b), are shown in Figure A1. This results in almost the same conclusions as shown in Figure 1(b): LGBT constituents of all parties approve more of LGB MCs. Straight cisgender Democrats approve of LGB MCs more, straight cisgender Republicans approve of them less. The point estimate for straight cisgender Independent constituents is close to that estimated in the main text, but is not significantly different from zero.

**Figure A1:** Differences in approval ratings among constituents represented by an LGB MC, by constituents' party



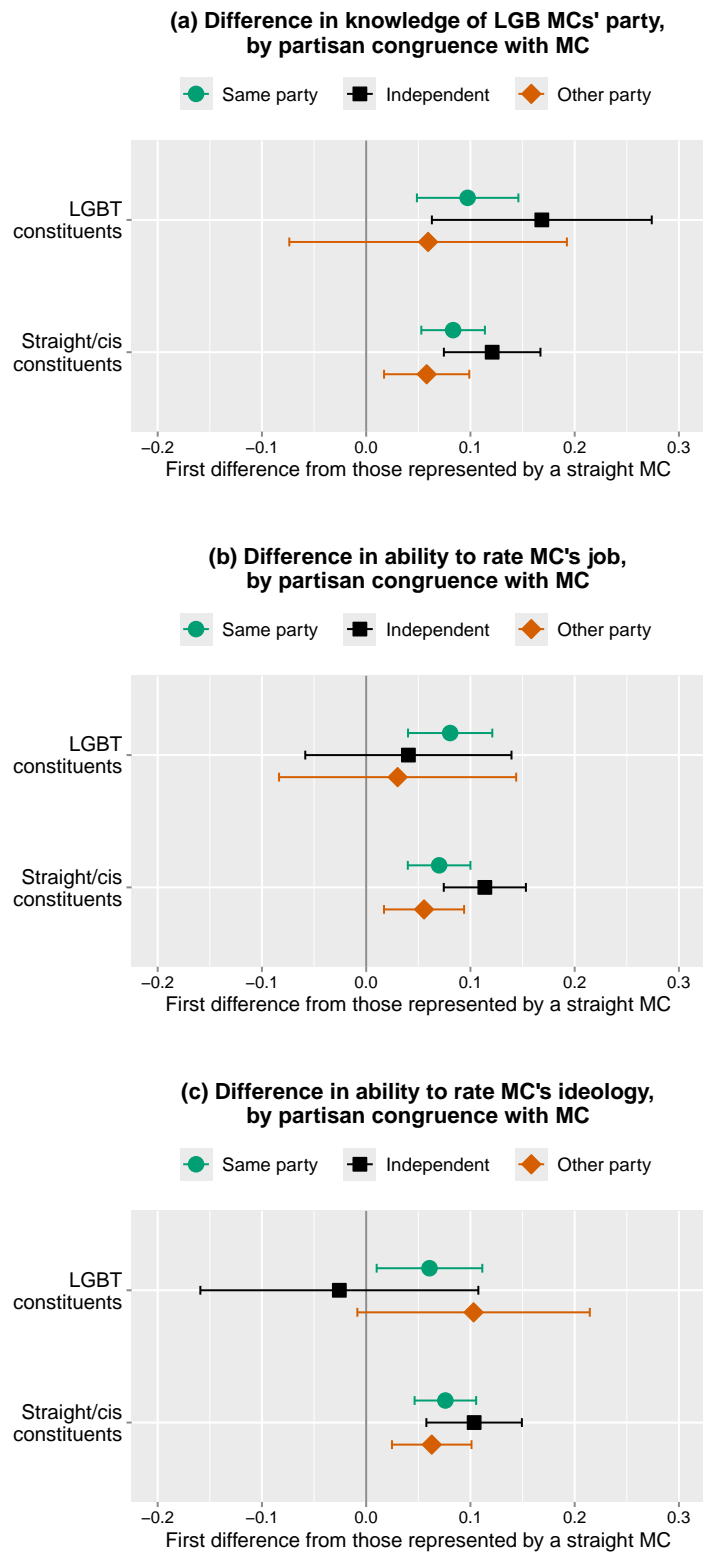
Note: First differences in approval ratings between constituents represented by an LGB MC and those represented by a straight MC, with 95% confidence intervals. Predicted values simulated from models that interact MC sexuality, constituent sexuality, and respondent's party identity, holding all other variables constant at their mean or modal values by level.

## **A5 Replicating information results by partisan congruence**

The main analyses show that constituents have more information about LGB than straight MCs. The models in Table 2 in the main text control for partisan congruence with the MC, but do not show if there are interaction effects similar to those for approval. Do the differences in knowledge about LGB MCs vary with partisanship? Figure A2 below shows the estimated first differences in information about LGB MCs, relative to straight MCs, for the three information items, by constituent sexuality and partisan congruence. These parallel the plot shown in Figure 1(b).

The plots suggest no significant differences in information levels based on partisan congruence. Straight cisgender constituents are more likely to know the MC's party, be able to rate their job, and be able to rate their ideology when the MC is LGB, regardless of their partisan congruence with the MC. For LGB respondents, the estimates are much noisier due to the small number of non-Democratic LGB respondents to the survey. The estimates do not indicate significant differences by partisanship, however.

**Figure A2:** Differences in information among constituents represented by an LGB MC, by partisan congruence with MC



Note: First differences in approval ratings between constituents represented by an LGB MC and those represented by a straight MC, with 95% confidence intervals. Predicted values simulated from models that interact MC sexuality, constituent sexuality, and partisan congruence, holding all other variables constant at their mean or modal values by level.