

“Our Ability to Continue Legislating Must Remain Beyond Question”: Proxy Voting in the House of Representatives During the COVID-19 Pandemic¹

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In March 2020, when COVID-19 began spreading rapidly in the United States, the House of Representatives was faced with the same set of difficult choices confronting other organizations that relied largely on in-person operations: how to continue to fulfill their responsibilities while also keeping individuals as safe as possible? In the case of Congress, the challenge was especially acute, as its job included passing legislation and conducting oversight to protect *others* from the public health and economic consequences of the crisis.

Among the House's responses to the public health emergency was one of its biggest procedural innovations in a generation: the adoption of proxy voting to allow members to vote without being physically present on the House floor. Initially approved for a 45-day period in 2020, proxy voting has been repeatedly reauthorized and, as of this writing, remains an option for House members to cast votes remotely.

Much of the attention paid to proxy voting has involved questions about how it has, or stands to, alter the deliberative character of the House. As the nature of the COVID crisis, and individuals' responses to it, have changed, some members appear to have used proxy voting beyond its public health purposes, casting votes while pursuing other activities.² But because exercising one's option to vote remotely necessarily involves selecting a colleague to effectuate one's proxy on the floor, it also provides an opportunity to study relationships between members. Unlike other indicators often used to study networks of members—like co-sponsorships or shared caucus memberships—proxy voting pairs may be less influenced by legislative strategy.

In this paper, we outline the circumstances that led to the adoption of proxy voting in 2020 and describe the mechanics of how individual members select a proxy and avail themselves of the option for casting votes on the floor. From there, we discuss some possible questions that data on who members select to act as their proxies may be helpful in answering, and what the existing literature in political science on members' networks suggests we should see in the proxy voting data. Next, we present analyses both of which members availed themselves of the proxy voting option and of who members tended to choose to cast their votes for them. Finally, we offer some observations about the implications of these findings for our understanding of the House and its practices

² Chris Cioffi, "Could Proxy Voting Make the House More Inclusive? Some Lawmakers Hope So," *Roll Call*, March 17, 2022; Melanie Zanona and Olivia Beavers, "House Republicans Jostle Over Proxy Voting After Florida Trip," *Politico*, March 2, 2021; Nick Grube, "Has US Rep. Kai Kahele Given Up On Washington?," *Honolulu Civil Beat*, April 11, 2022.

The History and Mechanics of Proxy Voting

Calls from members for the House to adopt procedures to conduct committee and/or floor business remotely began in earnest in mid-March 2020, when several large bipartisan House members sent letters to House leadership calling for a change to the Rules of the House that would allow for remote voting.³ On March 23, the majority staff of the House Rules Committee released a report laying out options under the chamber’s existing rules that would allow for voting on the floor without the full membership being present, including using unanimous consent, voice votes, paired voting, extended recorded votes, or use of the existing provisional quorum option. Beyond those options, the report argued, the House could adopt proxy voting or fully remote voting; the latter option, however, presented significant security and logistical challenge that would take considerable time to resolve.⁴

Over the next month, the House took several steps to allow other forms of business to be conducted remotely, and on April 16, Rules chair Jim McGovern (D-Mass.) recommended proxy voting as his preferred approach to conducting floor business during the public health emergency.⁵ Not everyone in the Democratic leadership shared McGovern’s preference—House Majority Leader Steny Hoyer (D-Md.) strongly advocated for “voting by the use of video-conferencing technology”⁶—but by the following week, leaders were calling for the adoption of new procedures permitting proxy voting on the floor.⁷ Efforts to pass a resolution standing up a proxy voting system were initially paused after opposition from Republicans,⁸ and after a set of bipartisan discussions about the available options,⁹ the Rules Committee reported a resolution to establish proxy voting in May.¹⁰ Republican leaders announced their opposition

³ The timeline of events leading to the adoption of proxy voting is drawn from Demand Progress’s “Timeline on Remote Deliberations and Voting” <<https://www.continuityofcongress.org/timeline-on-remote-voting>>. The account here focuses on voting on the floor in the House, but additional details are available for developments regarding House committee procedures and in the Senate as well.

⁴ “Majority Staff Report Examining Voting Options During the COVID-19 Pandemic,” *U.S. House of Representatives Committee on Rules, Office of the Majority*, March 23, 2020 <https://rules.house.gov/sites/democrats.rules.house.gov/files/StaffReport_VotingOptions.pdf>.

⁵ “Chairman McGovern Statement on Presentation to the Democratic Caucus Recommending Implementation of Temporary Remote Voting During this Pandemic,” *U.S. House of Representatives Committee on Rules*, April 16, 2020 <<https://rules.house.gov/press-releases/chairman-mcGovern-statement-presentation-democratic-caucus-recommending>>.

⁶ “Letter to Zoe Lofgren, Chairperson, Committee on House Administration and James P. McGovern, Chairman, Committee on Rules, from Steny Hoyer, House Majority Leader,” April 21, 2020 <<https://www.majorityleader.gov/sites/democraticwhip.house.gov/files/Hoyer%20Letter%20on%20Remote%20Action.pdf>>.

⁷ Sarah Ferris, Melanie Zanona, and Heather Caygle, “House Democrats Push Proxy Voting over Republican Pushback,” *Politico*, April 21, 2020.

⁸ Heather Caygle, John Bresnahan, and Sarah Ferris, “Pelosi Scraps Proxy Voting Plan after GOP Outcry,” *Politico*, April 22, 2020.

⁹ <https://twitter.com/ChadPergram/status/1258897051871522816>

¹⁰ “Dear Colleague: Resolution Introduced to Ensure Congress Can Continue its Work During the Coronavirus Pandemic,” *U.S. House of Representatives Committee on Rules*, May 13, 2020

quite quickly,¹¹ but Democrats had sufficient support to pass the resolution on their own, with only three of their members opposing it.¹²

Under the resolution approved by the House, members could cast votes remotely by proxy during periods when the Speaker of the House has been notified by the House Sergeant-at-Arms, acting in consultation with the Capitol’s Attending Physician, of the existence of a public health emergency. If a member wishes to vote by proxy, he or she must file a letter with the Clerk of the House specifically naming another member to serve as his or her proxy. Once the letter is on file, the member wishing to vote remotely must provide his or her colleague acting as his or her proxy with “exact instruction...on whether they intend to vote yea, nay, or present on the specific text or matter at hand” and the member holding the proxy “must follow such instruction exactly in casting the proxy vote.”¹³ A proxy pair remains active until a member either sends the Clerk a letter explicitly rescinding the designation without naming a new proxy, sends the Clerk a letter designating a new proxy, or appears on the floor to vote in person, which has the effect of terminating a proxy relationship. Members may choose to include a fixed period in their designation letter but are not required to indicate any end date for the relationship. In addition, proxy designations are not transitive, so if member A names member B as her proxy and then member B subsequently chooses to exercise his right vote by proxy by selecting member C, member A will have to name a different colleague to act as her proxy; her proxy designation does not simply transfer to member C. Finally, there is a maximum number of proxies that a given member can hold.¹⁴

The first votes by proxy were cast on May 27, 2020,¹⁵ and in since then, proxy voting has been widely used by House members. Between May 2020 and the end of the 116th Congress, 182 House members (176 Democrats and six Republicans) voted by proxy at least once for an average of 37 votes; roughly 9 percent of proxy voters used the option for at least 90 percent of the votes on which it was available. In 2021, 339 members (202 Democrats and 137 Republicans) exercised their right to vote by proxy at least once for an average of 51 votes. In 2022, 354 legislators (211 Democrats and 143 Republicans) voted by proxy at least once for an average of 66 votes. This increase in the overall mean

<<https://rules.house.gov/news/announcement/dear-colleague-resolution-introduced-ensure-congress-can-continue-its-work-during>>.

¹¹ “Democrats’ Rules Change is Biggest Power Grab in the History of Congress,” *Office of Kevin McCarthy, Republican Leader*, May 13, 2020 <<https://www.republicanleader.gov/biggest-power-grab-in-the-history-of-congress/>>.

¹² Roll Call #107 <<https://clerk.house.gov/evs/2020/roll107.xml>>.

¹³ “Remote Voting by Proxy Regulations Pursuant to House Resolution 965, 116th Congress,” *Congressional Record*, May 15, 2020, H2257.

¹⁴ In the 116th Congress and the initial adoption of proxy voting in the 117th Congress, the maximum number of proxies a member could hold was ten; see “Step-by-Step Guide and Best Practices for Remote Floor Voting,” *U.S. House of Representatives Committee on Rules, Majority Staff*, 2021. In the summer of 2021, the maximum was reduced to five; see <https://twitter.com/Fritschner/status/1447965860946186247?s=20&t=P0DrsvAVtx2Gpci96nt5F-Q>.

¹⁵ Roll Call #110, 116th Congress, 2nd session <<https://clerk.house.gov/Votes/2020110?Page=15>>.

number of votes cast by proxy is driven, at least in part, by the large increase in the total number of votes cast in the House on which proxy voting was available in 2021 and 2022 versus 2020 (438 and, as of this writing, 420 versus 144). Indeed, the number of members casting nearly all their votes by proxy in 2021 was much smaller (approximately 1 percent of all proxy voters) than in 2020; in 2022, only one member cast more than 90 percent of his votes by proxy.

What Can We Learn from Proxy Voting?

For members, journalists, and the broader public, much of the conversation around proxy voting has focused on what it means for the character of the institution and on whether, as the practice has been extended, members are continuing to use the procedure in line with its original, intended purposes. But for political scientists and others interested in the internal dynamics of the House, proxy voting provides a unique window into social relationships and networks among members of Congress. Studying proxy voting, in other words, is not only about who votes by proxy; it is also about who each proxy voter chooses to exercise that responsibility for them.

Research on social networks among representatives have generally used observable legislative behaviors to assess their relationships.¹⁶ Much of this work uses co-sponsorships as the indicator of members' relationships with one another. Work by Fowler (2006) on Congress, for example, uses co-sponsorship data to measure how connected members are to one another and finds that common dynamics linking legislators include shared committee leadership, regional connections, and interest in similar issues.¹⁷ Other research using co-sponsorship in both Congress and state legislatures documents a role for factors like shared partisanship and ideology, as well as demographic characteristics like race, ethnicity, and gender, in establishing relationships between members.¹⁸ In addition, there is evidence that institutional context shapes how legislators pursue these identity-based relationships. Holman and Mahoney (2018), for example, find that in state legislatures, both partisan control of the chamber and the existence of a women's caucus affect whether women collaborate with each other in sponsoring legislation.¹⁹

¹⁶ For a review of this literature, see Nils Ringe, Jennifer Nicoll Victor, and Wendy Tam Cho, "Legislative Network," in *The Oxford Handbook of Political Networks*, Jennifer Nicoll Victor, Alexander H. Montgomery, and Mark Lubell, eds. (New York: Oxford University Press, 2018), pp. 471-490.

¹⁷ James H. Fowler, "Connecting the Congress: A Study of Co-Sponsorship Networks," *Political Analysis* 14.4 (Autumn 2006): 456-487.

¹⁸ Zachary P. Neal, Rachel Domagalski, and Xiaoquin Yan, "Homophily in Collaboration among U.S. House Representatives, 1981-2018," *Social Networks* 68 (January 2022): 97-106; Kathleen A. Bratton and Stella M. Rouse, "Networks in the Legislative Arena: How Group Dynamics Affect Co-Sponsorship," *Legislative Studies Quarterly* 36.3 (August 2011): 423-460.

¹⁹ Mirya Holman and Anna Mahoney, "Stop, Collaborate, and Listen: Women's Collaboration in US State Legislatures: Women's Collaboration in US State Legislatures," *Legislative Studies Quarterly* 43.2 (May 2018): 179-206.

In addition to co-sponsorship, shared membership in congressional caucuses, which exist to connect legislators with common interests of various kinds, can also serve as a useful indicator of relationships between representatives. Democratic members are more connected via caucuses than their Republican counterparts, and within each party, legislators are more connected to same party colleagues than to those of the other party. Other dynamics that predict connectedness include ideological similarity, seniority, holding institutional leadership positions, and electoral safety; gender and race, on the other hand, do not appear to lead members to be more connected via caucuses.²⁰

Proxy voting designations provide an opportunity to explore similar questions about members' relationships, but they do so in a way that is free of the strategic considerations that might influence other observable indicators of connectedness. While a female legislator may be *more* likely to co-sponsor a bill introduced by a female colleague than a male one, she is unlikely to sign on to that legislation if she does not ultimately support it—regardless of the gender of its author. Similarly, while caucuses can be a valuable locus of social interaction for members and representatives' decisions to join them are shaped by relational considerations, a legislator is unlikely to join a caucus unless he or she is ultimately interested in the work of the group.

Proxy voting, on the other hand, does not have expressive content. The member holding the proxy must cast the vote in accordance with the specific directions of the colleague who has designated him or her. In addition, according to the guidance from the House Rules Committee, the member voting by proxy is supposed to deliver these instructions for each individual vote to be cast, whether on an amendment, a procedural motion, or the bill itself. The proxy holder exercises no discretion and, as a result, there is no opportunity for strategic behavior regarding the outcome from either half of the proxy pair.

In addition, co-sponsoring bills and joining caucuses are purely discretionary behavior on the part of members. Even if a member vigorously supports a piece of legislation, he or she does not have to co-sponsor it to work for its passage. If a representative wishes to vote by proxy, however, he or she must select a specific colleague to bear that responsibility on his or her behalf. There is no way to accomplish the same end without identifying a fellow representative to execute the task. Together, these two features of proxy voting make it an indicator of members' relationships that is less likely to be shaped by strategic considerations than some other observable behaviors.

In this paper, we begin to leverage the proxy voting data to explore these relationships. Specifically, we examine the extent to which various legislator attributes were associated with them being more or less likely to designate a proxy at all, be designated *as* a proxy by anyone, or designate a particular member as their proxy. We consider each of these possibilities in turn.

²⁰ Jennifer Nicoll Victor and Nils Ringe, "The Social Utility of Informal Institutions: Caucuses as Networks in the 110th U.S. House of Representatives," *American Politics Research* 37.5 (September 2009): 742-766.

Who Votes by Proxy?

Before analyzing the relationships between members captured in proxy voting pairs, we first explore the question of who has chosen to vote by proxy. We analyze data from the 116th and 117th Congresses separately, as the dynamics shaping proxy voting choices were different in the two years. First, members of Congress had access to vaccination beginning in December 2020, shifting the risk environment substantially.²¹ Second, thanks in part to threats experienced by members of Congress following the January 6 insurrection at the Capitol, House Minority Leader Kevin McCarthy relaxed the Republican Conference’s position against proxy voting in January 2021; as a result, the number of Republican members using the option increased significantly in 2021 and 2022 over 2020.²²

Below, we examine three separate measures of use of proxy voting. The first is an indicator variable of whether each member ever used proxy voting in each Congress, analyzed using a logit model. The second is a count of the number of times each representative voted by proxy each Congress, and the third is the number of days on which votes took place on which a member had an open proxy; both of these estimations use ordinary least squares. The latter two measures are quite highly correlated (0.95 for 2020 and 0.88 for 2021 and 2022) but using voting days rather than count of votes provides a measure that is less sensitive to members choosing to vote by proxy on days on which there are exceptionally large or small numbers of votes.

In each analysis, we examine the relationship between the proxy voting outcome and a series of variables that we would expect to influence a member’s choice on how to use the procedure. For both Congresses, we include four demographic characteristics: an indicator for whether a member is female; an indicator for whether he or she is Black; an indicator for whether he or she is Latino/a; and a variable capturing his or her year of birth. Public health data since the earliest days of the pandemic has indicated that men, Black Americans, Latino/a Americans, and older individuals are all at higher risk of severe COVID outcomes.²³ As a result, we would expect that members from these demographic groups would be more likely to use proxy voting.

²¹ Claudia Grisales, “Congress Gets COVID-19 Vaccine, But Members Fight Over Who Should Have Priority,” *NPR* December 23, 2020 <<https://www.npr.org/2020/12/23/949247359/congress-gets-covid-19-vaccine-but-members-fight-over-who-should-have-priority>>.

²² Melanie Zanona and Olivia Beavers, “House Republicans Jostle Over Proxy Voting after Florida Trip,” *Politico* March 2, 2021 <<https://www.politico.com/news/2021/03/02/proxy-voting-472645>>.

²³ Tian Gu, et. al, “Characteristics Associated With Racial/Ethnic Disparities in COVID-19 Outcomes in an Academic Health Care System,” *JAMA Network Open* 10.3 (October 2020): 1-15; Prashant Athvale, et. al, “Differential Impact of COVID-19 Risk Factors on Ethnicities in the United States,” *Frontiers in Public Health* 9 (December 2021): 1-16.

In addition, we also include a measure of the distance between the member’s district and Washington, D.C., since—especially in the pre-vaccine period—we would expect legislators whose ability to participate in person involved lengthier air travel to be more likely to vote by proxy.²⁴ Finally, we might expect that a member’s relative position within his or her caucus might affect his or her choice to use proxy voting. One possibility is that ideologically more moderate members might see more value in spending time in their districts and thus choose to use proxy voting more often. Here, ideological extremity is measured using the absolute value of a member’s NOMINATE score and the mean NOMINATE score for members of his or her party.

Table 1 presents the results of these analyses for the 116th Congress, in 2020—with the sample limited to Democrats only, given the small number of Republicans who used the procedure.

Table 1: Proxy Voting by Democrats in 2020

	(1) Ever used proxy voting	(2) Number of votes by proxy	(3) Number of voting days with an open proxy
Female	-0.061 (0.323)	4.935 (5.319)	2.574 (1.843)
Black	0.283 (0.384)	4.250 (6.454)	0.962 (2.237)
Latino/a	0.004 (0.496)	2.668 (7.762)	1.197 (2.690)
Year of Birth	-0.011 (0.012)	-0.919*** (0.202)	-0.267*** (0.070)
Extremity (NOMINATE distance from party mean)	-3.721* (2.018)	15.489 (34.559)	0.880 (11.976)
Distance to DC	0.062*** (0.021)	0.565* (0.289)	0.217** (0.100)
Constant	22.006 (24.134)	1,818.234*** (395.445)	531.479*** (137.039)
Observations	235	235	235
R-Squared		0.107	0.089

Standard errors in parentheses

²⁴ Latitude and longitude measurements for each congressional district were taken from the U.S. Census Bureau’s Gazetteer Files for 2021 <<https://www.census.gov/geographies/reference-files/time-series/geo/gazetteer-files.html>>; distances were calculated using Stata’s geodist command, which computes the length of the shortest curve between two points along the surface of a mathematical model of the earth. Distances are measured in hundreds of miles.

*** p<0.01, ** p<0.05, * p<0.1

In Table 1, we see that, in 2020, several of the factors that we expected would lead a Democratic member to be more likely to vote by proxy were indeed associated with use of the procedure. The analysis in column (1) indicates that members who lived a greater distance from Washington, DC were more likely to use proxy voting at least once; the results columns (2) and (3) also suggest that members from farther flung distances also used proxy voting more times and on more days than their colleagues from closer districts. Among the demographic characteristics included, only age appears to have been predictive of frequency of proxy voting among Democrats in 2020, with older members voting by proxy more often and on more days. Beyond age, however, gender and race do not appear to have been associated with Democratic members' choices to vote by proxy in 2020.

Table 2, meanwhile, displays results of the same analysis for the 117th Congress, in 2021 and 2022, including all House members and adding an indicator variable for Democratic party membership.

Table 2: Proxy Voting in 2021 and 2022

	(1)	(2)	(3)
	Ever used proxy voting	Number of votes by proxy	Number of voting days with an open proxy
Female	0.898* (0.470)	1.235 (12.444)	0.498 (2.834)
Black	1.127 (1.071)	58.746*** (16.788)	6.468* (3.822)
Latino/a	1.034 (0.782)	43.575** (18.475)	7.248* (4.207)
Democrat	2.010*** (0.445)	49.328*** (12.491)	12.833*** (2.849)
Year of Birth	-0.006 (0.013)	-0.990** (0.452)	-0.276*** (0.103)
Extremity (NOMINATE distance from party mean)	-0.637 (1.701)	-31.305 (66.177)	-19.292 (15.135)
Distance to DC	0.001 (0.022)	1.282* (0.689)	0.146 (0.157)
Constant	12.919 (26.221)	1,987.460** (888.194)	558.599*** (203.144)
Observations	439	439	436
R-Squared		0.147	0.130

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Unsurprisingly given the partisan valence attached to the procedure, we see that in 2021 and 2022, Democrats were more likely than their Republican colleagues to vote by proxy. Not only were they more likely ever vote by proxy (column 1), but they also voted more times and on more days than their GOP peers. In addition, several factors that were associated with use of proxy voting in 2020 also appear to have mattered for members' choices in 2021 and 2022. Members who hail from districts farther from Washington, DC were continued to be more likely to use proxy voting; each additional 100 miles of distance corresponded to roughly 1.3 additional votes by proxy. Older legislators also remained as more frequent proxy voters.

Notably, in 2021 and 2022, we also saw that some additional demographic characteristics appeared to be related to proxy voting that were not predictors of behavior in 2020. In columns (2) and (3), we note that Black and Latino/a members cast more votes by proxy and had open proxy letters on more voting days than their colleagues who identify as members of other racial groups. Holding all else equal, Black legislators voted by proxy 59 more times than their colleagues not identifying as Black; representatives identifying as Latino/a cast 44 more votes by proxy than their peers who do not consider themselves a member of that group.

The Dynamics of Proxy Pairs

Beyond understanding which members of the House have elected to use proxy voting since 2020, we also aim to use the relationships revealed by proxy pairs to shed light on relationships between members. We provide an initial look at these relationships here, using data from 2020 (the 116th Congress only); we restrict our analysis to only the first eight months of proxy voting because data for one of our principal questions of interest—are more legislatively effective members more likely to be designated as proxies?—is, at present, only available through the end of the 116th Congress.

One way to examine which House members are more likely to be selected as proxies is via regression, which appears in Table 3. Here, we use two dependent variables for each Democratic member of the House: an indicator variable for whether he or she was ever named as a proxy by a colleague in 2020 and a continuous variable measuring the number of distinct colleagues who selected that member as their proxy. Column (1) is estimated via logit and column (2) via OLS. We use the same independent variables as in our analysis proxy voting frequency in Tables 1 and 2, but also add a member's Legislative Effectiveness Score to assess whether more effective members were trusted more to act as proxies by their peers.

Table 3: Predictors of Selection as Proxy, 2020

	(1) Ever Named as Proxy	(2) Number of Distinct Members Naming as Proxy
Female	0.538* (0.280)	0.144 (0.308)
Black	-0.140 (0.340)	-0.383 (0.375)
Latino/a	0.378 (0.408)	0.417 (0.449)
Year of Birth	0.025** (0.011)	0.012 (0.012)
Extremity (NOMINATE distance from party mean)	-0.972 (1.804)	-1.001 (1.998)
Distance to DC	-0.012 (0.015)	-0.044*** (0.017)
Legislative Effectiveness Score	0.057 (0.121)	-0.097 (0.135)
Constant	-50.104** (21.298)	-20.795 (23.268)
Observations	234	234
R-squared		0.043

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Here, we see that women and younger members were more likely than their colleagues to be selected to act as a fellow legislator's proxy at least once in 2020. Members who live closer to Washington, D.C., meanwhile, were chosen by more unique colleagues; this result is driven, in part, by the fact that the two members who were selected by the most distinct fellow representatives, Reps. Jamie Raskin (D-Md.) and Reps. Don Beyer (D-Va.), hail from districts extremely close to the Capitol.²⁵

To this point, we have examined how member attributes may affect their likelihood of designating or being designated as a proxy. We turn now to examining the association between members' matching on these attributes and the designation of one another as proxy voters in the 116th Congress.²⁶

²⁵ Raskin was selected by 16 other members and Beyer by 13 other members in 2020.

²⁶ When LESs are released for the 117th Congress, we will expand the network analyses to include that Congress as well.

As discussed above, the designation of proxies constitutes, or perhaps reveals, directed social network ties among lawmakers. The instance of ties in this network serves as the dependent variable in an exponential random graph model (ERGM). ERGMs have two strengths that are particularly relevant here. First, they permit the inclusion on the right-hand side of the model terms that capture endogenous dependencies, that is, fundamental network processes driving tie formation independent of actor attributes. In this model, we include three such processes: the number of the edges in the network, which is analogous to the intercept term in the standard regression model and captures the baseline probability of tie formation; the frequency of asymmetric ties, which, importantly for this analysis, captures the number of ties that are *not* reciprocated; and the geometrically-weighted edgewise shared partner distribution,²⁷ which captures the tendency of actors in the network to form triangles (the proxy of my proxy is more or less likely to become my proxy) and more elaborate “connections of connections”-type constructs.

In addition to explicitly including endogenous network dependencies, ERGMs can incorporate both actor- and dyad-level covariates. Actor-level covariates can represent actor attributes and their comparison between actors. We include several such terms in our model: Receiver LES, which captures whether having a higher LES makes you more likely to *receive* a tie; Sender LES, which captures whether having a higher LES makes you more likely to *send* a tie; in a separate model, LES Heterophily, the absolute difference in LES between a potential sender and receiver, which captures whether members prefer to send ties to others with different levels of legislative effectiveness; Matched on State, which captures the extent to which members prefer to designate proxies from the same delegation; Matched Gender, which captures the extent to which members prefer to designate proxies of the same gender identity; Matched on District Density Level, which captures whether members prefer to designate proxies representing similarly urban or rural districts;²⁸ Matched on DC Office Building and Floor, which captures whether members are more likely to form ties with those they work physically close to; Matched on Year Elected, which indicates whether or not the two actors in a potential tie were part of the same “class” of new representatives; and, finally, the Absolute Value of the Difference between each actor’s score on the first dimension of DW-NOMINATE, representing the general similarity of their roll-call records.

Finally, ERGMs allow ties in the dependent variable network to be modelled as a function of ties in other networks; these other networks serve as edge covariates. Here, we examine whether ties in proxy

²⁷ For the purposes of facilitating estimation, we set the decay parameter of this term to zero, indicating that high-star connections are as likely as triangles.

²⁸ To measure district density, we use a measure developed by David H. Montgomery that categorizes each Census tract by its population density, aggregates the tracts into congressional districts, and then uses a clustering algorithm to group districts into a set of six categories, ranging from “pure rural” to “pure urban.” For more details, see David H. Montgomery, “Methodology,” November 13, 2018 <<https://github.com/theatlantic/citylab-data/blob/master/citylab-congress/methodology.md>>.

voting are a function of ties in two other networks that reflect shared identities, priorities, or goals common to House members. The first such network is the membership of legislators in congressional caucuses such as the Congressional Black Caucus and the Republican Study Committee. As these are purely voluntary memberships based on shared goals or other considerations, we would expect legislators affiliated with the same caucuses to be more likely to designate one another as proxies. The second edge covariate network reflects shared committee assignments. The diversity of issue portfolios across House committees rewards members for seeking out committee assignments of particular value to their districts; by extension, shared committee assignments may reflect members having similar districts specifically, or issue priorities in general, and thus lead to more frequent interaction, trust, and relationships that might be reflected in proxy network ties.

The estimated coefficients in two ERGMs²⁹ of proxy network tie formation in the 116th Congress are reported in Table 4. The two models differ on whether the effect(s) of LES on network tie formation are assumed to be based on greater tendency of high- or low- LES members to designate or be designated as proxies (Model 1) or on homophily or heterophily between members based on their legislative effectiveness (Model 2). In both cases, all LES-related coefficients are small and not statistically distinguishable from zero. This implies that LES is associated neither with designating nor being designated as a proxy, nor do members appear to prefer designating members with either similar or dissimilar LES to themselves as proxies. Similarly, there appears to be no preferential proxy-designating on the basis of shared caucus memberships, state delegations, gender, district density (urbanity-rurality), DC office location, entering House year, or roll-call record as depicted in DW-NOMINATE scores. Among actor and edge covariates, two factors are estimated to be associated with tie formation in the proxy network. The first is shared committee memberships, which are *negatively* associated with proxy tie formation. This implies that members specifically select *against* their committee colleagues in designating proxies. Second, and marginally not distinguishable from no association, is a revealed preference for designation members of one's own state delegation as proxies. Finally, the coefficients on endogenous dependency terms are all highly precisely estimated. Overall network edge count is negative and statistically significant, reflecting the many members of both parties that neither designated proxies nor were designated as proxies. The number of asymmetric (or non-“reciprocated”) ties is negatively associated with tie formation, implying that, conditional on other covariates, proxy designations tended to be reciprocated over the course of the 116th Congress. Finally, the geometrically-weighted edgewise

²⁹ In both models, convergence was confirmed by examining the immediate output from estimation via the “ergm” package in R (probability of convergence was reported greater than 99.99 percent), diagnostics on the Markov Chain Monte Carlo algorithm used (where good mixing and statistical *indistinguishability* from observed covariate values was confirmed), and goodness of fit plots (where estimated network structures and covariate values were all confirmed to be close to values in the observed network).

shared partners was positively associated with tie formation, implying that, though proxying was not *automatically* transitive by rule (see above), it may well have been in practice; that is, if A designated B and then B designated C, A was more likely to at some point designate C.

Table 4: ERGM of Proxy Network Tie Formation

	(1)	(2)
Edges	-4.23*** (0.22)	-4.24*** (0.21)
Asymmetric	-1.19*** (0.16)	-1.19*** (0.16)
GWESP (Decay 0)	1.64*** (0.13)	1.63*** (0.13)
LES of Receiver	0.09 (0.06)	
LES of Sender	-0.04 (0.06)	
LES Heterophily (Abs. Diff in LES)		0.08 (0.05)
Shared Caucus Memberships	0.20 (0.14)	0.20 (0.14)
Shared Committee Memberships	-0.65* (0.26)	-0.65* (0.26)
Matched on State	0.41+ (0.21)	0.40+ (0.21)
Matched Gender	0.10 (0.11)	0.10 (0.11)
Matched on District Density Level	0.10 (0.13)	0.09 (0.13)
Matched on DC Office Bldg & Floor	-0.08 (0.21)	-0.09 (0.21)
Matched on Year Elected	-0.04 (0.18)	-0.03 (0.18)
Abs. Diff. on DW-NOMINATE Dim. 1	-0.05 (0.14)	-0.07 (0.14)
Observations	48180	48180
AIC	3594.8	3592.1
BIC	3709.0	3697.5

p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001.
Standard errors in parentheses.

There are several possible interpretations of the fact that we do not see a relationship between being asked to serve as a colleague's proxy and Legislative Effectiveness Scores in the 2020 data, either via regression or network analysis. One possibility is certainly that, in this particular form of relationship, other considerations trump a member's skill at legislating. A second potential explanation is that, in 2020,

before vaccines were widely available, members' selection of proxies were driven more heavily by factors related to their colleagues' personal safety, like age and distance to travel, than by other considerations. Further analysis of the 117th Congress will provide more insight.

Concluding Thoughts

The analyses presented above only begin to shed light on both how representatives have used proxy voting since 2020 and on what the information revealed by the practice can teach us about the House of Representatives. Further work on this project will focus on the relationships between members, as captured by the choice by one member to select a specific colleague as his or her proxy. We know from work on the very early days of proxy voting that initial adopters of the procedure were more likely to name colleagues from their state or region or with whom they shared an identity or ideological caucus membership as their proxy.³⁰ But more work remains to be done to determine whether those dynamics have persisted, as well as whether members appear to consider other factors, like legislative effectiveness, in selecting their proxies.

Using our analyses of proxy voting use, however, we can offer some initial observations on what proxy voting has meant for the institution thus far. Examples of the practice being used in ways beyond its intended purpose notwithstanding, proxy voting has, first and foremost, been a way for members of the House to continue to fulfill their constitutional responsibilities amidst a global pandemic. The presence of evidence indicating a relationship between some COVID-19 risk factors (most notably, age, but also race in 2021) and more frequent use of proxy voting illustrates the degree to which, like Americans more generally, members have experienced the pandemic differently. As the House contemplates its future, considering reasonable accommodations that allow for a more inclusive body is important.

At the same time, however, unfettered use of the procedure would fundamentally alter the character of the institution—not only because it would shift the chamber away from its historic modes of relationship building, but also because it would allow members to continue to feed anti-Washington sentiment by portraying time spent in Washington as “unnecessary” if members can continue to participate from afar. A tension may exist, then, between inclusiveness in the face of diverse needs of individual members and continuing efforts to push back against portrayals of Washington as something to be run against.

³⁰ “Identity caucuses” here mean the Congressional Black Caucus and the Congressional Hispanic Caucus. “Ideological caucuses” are the Progressive Caucus, the New Democrat Coalition, and the Blue Dog Coalition. See Molly E. Reynolds and Christian Potter, “As the House Returns to Washington, Which Members Plan to Vote from Afar?,” *FixGov* June 25, 2020 <<https://www.brookings.edu/blog/fixgov/2020/06/25/as-the-house-returns-to-washington-which-members-plan-to-vote-from-afar/>>.