

Congressional Roommates:
How Living Together Impacts Legislative Collaboration

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Undergraduate Honors Thesis

March 31, 2021

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Abstract

In the recent past, several groups of members of Congress have chosen to live together as roommates in shared part-time homes. I investigate whether these residential relationships have an impact on the lawmakers' rates of collaboration with one another. Theoretically, roommates will collaborate with one another more because of greater proximity, mutual self-interest, and altruism. This thesis tracks two case studies qualitatively and quantitatively, using news coverage, research interviews with former members of Congress, probit regression analysis, and a difference-in-differences quasi-experiment to find significant support for a substantial "roommate effect" independent of a range of controls including ideology and party.

Acknowledgments

I am grateful for the generosity with which Professors Robert Shapiro and Macartan Humphreys, my faculty advisor and my seminar professor, along with seminar preceptor Elena Barham, have given their time as this thesis developed. I am also exceedingly appreciative of Secretary Leon Panetta and Reps. Bill Delahunt, Sam Gejdenson, and Erik Paulsen, who took the time to participate in research interviews with me and all provided valuable insights that reshaped this paper. I also want to thank the students of our seminar, particularly Nia Atkins and Eric Scheuch, for sharing their thoughts on various chapters and presentations. Additionally, I appreciate the thought-provoking discussions I had while presenting this research at the 2021 Pi Sigma Alpha National Research Conference, as well as the in-depth feedback provided by Brian Guay. I give thanks to Professor Judith Russell for connecting me with that opportunity, and for her mentorship over the years. Finally, of course, I am grateful to my current roommates, who apparently keep a tidier house than members of Congress. (Who would have guessed?)

1. Introduction – Why Study Residential Social Relationships Between Legislators?

Washington is actually a lonely place. Millions of acquaintances, many people want something. But no friends. We're friends. (Tapper 2007)

Introduction

Sharing a home in the capital has been a practice among members of Congress since the nation's founding, and it is well-known that residential environments can play host to meaningful policy discussions or even important legislative negotiations. In the nineteenth century, for example, a first-term congressman from Illinois named Abraham Lincoln listened to remarks from abolitionist Joshua Giddings at their shared boardinghouse (D. Rogers 1986), and the two ended up working together directly on anti-slavery legislation.¹ He later served in Lincoln's administration. This was not an isolated case; in fact, boardinghouses even came to manifest themselves as voting blocs in the early years of the republic (Young 1966).

Residency in Washington has, of course, evolved greatly since Lincoln's time. By the middle of the twentieth century, many members of Congress had instead made the Washington area their primary residence, bringing their families and putting down roots in neighborhoods like Georgetown or suburbs like Arlington. After the popularization of commuter air travel, the balance swung back toward maintaining one's primary residence in one's home district (Mann and Ornstein 2006, 169, 215), as the appearance of being "detached" from one's community became a political liability (Kaiser 2013; e.g. Campanile 2011). Combined with expensive rents and a smattering of other reasons, this has led many members of Congress to sleep in their offices and given rise to renewed interest in congressional living arrangements, including the

¹ See Lincoln (1849) for primary source documentation, courtesy of the Library of Congress.

prospect of a congressional dormitory (Schwedel 2017; Cooper 2018). It has also inspired small groups of legislators to live together as part-time roommates in the capital, sharing rooms in a townhouse while their families remain in their districts.

In the modern world, then, might living together significantly affect how members of Congress legislate? Informal relationships remain a critical form of political capital in Washington; it is quite possible, therefore, that cohabitation would lead to a significant increase in collaboration among those lawmakers who room together. Can that correlation be quantified, and can the specific causal mechanisms be identified? This thesis seeks to answer those questions using a case study approach, focusing on historical data associated with two different groups of congressional representatives who shared a residence communally. In a qualitative analysis consisting of analysis of news coverage and research interviews with former members of Congress, I find strong support for the prospect of a “roommate effect” and determine that roommate status is indeed likely to cause an increase in shared productivity among those legislators. In a quantitative analysis that uses cosponsorship data as a proxy for collaboration, I find that there is indeed a significant correlation between cohabitation and collaboration, to the tune of about two percentage points—a 20-25% increase—but a difference-in-difference-in-difference analysis fails to conclusively resolve the question of causation using the imperfect data currently available. I therefore rely upon the qualitative analysis’s causal determinations, concluding that it is very plausible that at least a substantial portion of that quantitative finding is genuinely being caused by the information-sharing and interpersonal trust built during the cohabitation, with other portions being caused by unmeasured factors like self-selection along personality traits or other examples of homophily (c.f. McPherson, Smith-Lovin, and Cook 2001). For instance, a part of this novel shared productivity has to be caused directly by the

roommate tie because a large measure of the cooperation takes place under circumstances that have no rival occasions for collaboration. In other words, there is no similar situation where legislators can regularly socialize and share information late at night as they prepare for the next day. These results are not necessarily representative of all possible roommate groups, as the roommates came together in a nonrandom way. As such, the policy implications are limited; however, it seems likely that similar groups would experience similar benefits with respect to productivity and collaboration.

1.1 Hypothesis and Motivation

I test two interrelated but distinct hypotheses. The first hypothesis is that legislators who cohabitate will collaborate with one another at a greater rate than they do with non-roommates who are otherwise similar. The second hypothesis is causal rather than correlational: it is that legislators' sharing living space will cause increased legislative collaboration among the group, for instance by increasing information-sharing and interpersonal trust between those members of Congress.

From a theoretical perspective, if increased collaboration in Congress can be linked to lawmakers' sharing living space—specifically, if cohabitation induces collaboration—this paper could serve as a meaningful case study with which to inform ongoing discussions about political psychology. If living together does indeed improve legislative collaboration, and it can be traced to a particular causal mechanism, there are many political theories regarding the impact of something as simple as informal, unstructured time shared between legislators within theories about legislative strategy and political decision-making.

From a more substantive policymaking perspective, a positive or negative answer to the central question of this paper will have an impact on recurring debates over congressional

housing and recent discussion about permanently digitizing aspects of Congress's operations. Since the informal interactions that characterize cohabitation appear to significantly improve shared productivity, it may be worthwhile to encourage similar arrangements between other lawmakers. On the flip side, the importance of in-person interpersonal connections would imply that digitizing Congress will diminish productivity to a degree. Conversely, if there were no driving relationship between cohabitation and collaboration, proposals to digitize Congress may have been less harmful in certain ways than traditional wisdom would suggest, and encouraging more legislators to live together would have been unnecessary or even misguided.

This paper focuses on trust and information-sharing as the mediums by which cohabitation might improve legislative collaboration. Specifically, since definitions of trust differ considerably across the literature, this paper considers a blend of three mechanisms that improve trust and collaboration among roommates in particular: simple proximity, rational "encapsulated interest" decisions, and social-psychological factors such as altruism. These causal mechanisms must be explored because physical proximity alone is not alone a direct cause for substantive collaboration. As for explanations rival to those under the "trust" umbrella, there are none that adequately satisfy the broad nature of this analysis and the particularities of the interpersonal relationships that characterize it. A simpler mechanism of greater information-sharing could certainly explain some collaboration, but it may not provide a full or robust explanation. After all, legislators receive large quantities of information all the time, in briefings, meetings, and hearings—the unique element here is instead the intimate circumstance in which the information can be shared, and the extensive time spent in that environment. Information-sharing will instead be subsumed as one of several ways that roommates engage in building and utilizing different manifestations of trust.

1.2 Literature Review – Causality: Trust, Proximity, Rational Interest, and Altruism

Definitions of trust vary across the literature and across disciplines. Some economists distinguish between “calculative trust” and “personal trust,” with the former consisting of purely strategic economizing and the latter involving deeper, non-economic factors (Dunn 1990; Williamson 1993); the willingness to trust informs a decision whether or not to cooperate. In the field of project management, scholars have described trust as a willingness to be vulnerable to another party’s actions (Edkins and Smyth 2006). Many researchers also point out that people have different levels of generalized trust in others, as well as different moral motivations, and weigh those factors when measuring interpersonal trust (Leach and Sabatier 2005; Cook, Hardin, and Levi 2005). Some scholars view trust not merely as auxiliary to cooperation, but instead as a necessary threshold for cooperation to occur in the first place (Gambetta 2000). Such variety in definitions and applications requires that this thesis utilize more precise categories when describing behavior, though they all fall under the umbrella term “trust.”

Leach and Sabatier (2005) use a helpful dichotomy to break down the above explanations of trust, among others, as they relate to political negotiation and collaboration. On the one hand, there are rational choice explanations of trust. The basic premise of such types of trust is that individual agents make calculated, evidence-based assessments as to whether or not another agent is “trustworthy,” and act accordingly. This calculation can be weighted to reflect any institutional rules (collective choice, monitoring, enforcement) that can constrain the agent’s actions, as well as other weights like the individual’s level of generalized trust in other people. The authors find that small groups that are stable over time—as well as groups that have more substantial surveillance and little anonymity—are the most conducive environment for rational choice trust. While they did not apply this frame to a lawmaker-roommate scenario, one can easily see the very helpful parallels for analysis: roommates are a small and stable group with

some structural enforcement components (i.e. having to face on a daily basis those whom you might wrong), and they can frequently “surveil” each other. Other empirical analysis also reinforces the suggestion that the medium of frequent face-to-face communication, too, is particularly conducive to cooperation, for a number of reasons (Ostrom, Gardner, and Walker 1994).

On the other hand, as Leach and Sabatier lay out, are explanations involving social psychology. In this model, trust derives from feelings about procedural legitimacy, the impacts of cognitive biases and heuristics, and synergistic collaboration rather than zero-sum horse-trading. Here, the principal “foundation of trust” is an alignment of core policy beliefs, which are heuristic shortcuts that legislator A uses to determine whether collaboration with legislator B is at all possible. Unlike pure rational choice, though, there are elements like goodwill and social norms that influence the decision to trust and collaborate. As one might expect, scholars have found factors like friendship to be important influencers of behavior (c.f. Arnold, Deen, and Patterson 2000; Blum 2009; Caldeira and Patterson 1987). Another implication of this in the literature is that beliefs will converge over time as trust is built (Leach and Sabatier 2005; Sabatier and Zafonte 2001). It is difficult to believe that a small group of roommates would not experience some social psychological influences, given the intimacy of that relationship. Given these circumstances, the way this paper will categorize and assess this kind of behavior is under the descriptor “altruism toward roommates,” a model suggesting that an altruistic roommate feels that they receive a boost to their own well-being from helping a roommate. The relevant application in this thesis would be investigating whether a legislator’s altruism is directed disproportionately to their roommates relative to non-roommates. If that were the case, then it

would be plausible that cohabitating has augmented the bundle of social psychological phenomena categorized as altruism, thereby increasing collaboration.

Borrowing from Leach and Sabatier's dichotomy, social psychological explanations would have to be examined against a well-defined rational self-interest model. Russell Hardin (2002) proposes an "encapsulated interest" trust, where legislator A believes that legislator B will incorporate A's own interests into B's actions as long as A knows that B is interested in continuing to gain from their relationship in the long term. This enhances and facilitates cooperation between them, as the mutual self-interest means that A feels confident enough to be vulnerable to defection from B, which they know is unlikely. The behavior is purely rational, as there is not an element of goodwill or enforcement by social norms; Hardin uses the machinations between crooked dealings in Dostoevsky's *The Brothers Karamazov* as an example. When B no longer believes that B's interests will be served by a continued relationship with A, B will defect, and vice versa. It is also important to note that each assessment of trust is delimited with respect to a particular matter at hand. That is, A must always trust B with respect to Matter X or Matter Y. There is no guarantee that A will trust B on Matter Y even if they trust them on Matter X (c.f. Hardin 2001; Cook, Hardin, and Levi 2005, 2). In this way it is perhaps better described as a model of "confidence" rather than "trust," in common parlance (Tonkiss and Passey 1999, 258–61). The encapsulated choice model will thus serve as a rational-choice baseline: anything beyond its standard is likely a social-psychological influence as opposed to a purely rational one. For one particular example, some scholars have discovered a "betrayal aversion," a behavioral quirk where humans are less likely to engage in cooperation when the risk of loss derives from betrayal by another actor rather than simple bad luck, even when the

magnitude of the risk is the same (Bohnet et al. 2008). This would depress the pure rational choice behavior I might otherwise expect.

Altruism, meanwhile, describes pro-social behavior that could not be described by material self-interest alone; though precise definitions vary, the fundamental principle is that altruistic behavior benefits others at the expense of the altruist. In the congressional roommate scenario, this might be represented as the sacrifice of personal political gains (or the potential thereof)—or even simply an opportunity cost of time and energy that could be spent advancing personal causes instead—in order to benefit one’s roommates. In other words, it is non-economizing behavior that intentionally benefits others rather than the altruist. This is a feature of human decision-making: Blum (2009), for example, suggests that friendship brings out “altruistic emotions” that justify partiality in one’s behavior. There are a number of environmental factors that may adjust the manifestation of altruism. Simon (1993) finds that bounded rationality and self-identification with a group or organization can stimulate forms of altruistic behavior. One might choose to label this “loyalty” rather than altruism, but I shall consider it under the umbrella of altruism for the sake of comprehensibility. Altruism also varies with beliefs, preferences, and the societal expectations thereof; Tabellini (2008) and Kanagaretnam et al. (2009) find that societies with stronger generalized morality and pro-social tendencies are more likely to engage in altruistic or trusting behavior (c.f. Berggren and Bjørnskov 2017). In this way, altruism is associated with both generalized trust as well as personal relationships; I will focus primarily on the latter in this analysis.

Finally, simple physical proximity itself can produce a marginal increase in collaboration, which needs to be controlled for relative to an explanation about trust. One will utilize an easily accessible resource more quickly than one that requires a laborious search. However, by making

contact more frequent and increasing the rate of information-sharing, proximity also fuels other influences like friendship and rational self-interest. Literature on the subject of proximity-induced collaboration is mixed. David Truman (1956, 1024) suggests that personal friendships as well as more frequent contact in state party delegations, legislative committees, and even the “proximity of offices or residences in Washington” provided voting cues to legislators. Caldeira and Patterson (1987) find that physical proximity inside and outside of the legislative chamber is likely to stimulate the development of friendship, and with it, trust and collaboration. Maskett (2008) finds that deskmates in the California legislature are more likely to vote together, abstracted from partisanship. Saia (2018) finds that Icelandic legislators’ speech and voting behaviors are affected by the legislators seated near them, with the seating assignments allotted at random; he also complements that analysis by finding a correlation between seating location and legislative behavior during the 29th Congress, where the opportunity to choose seats was given out by a lottery. Similarly, while he does not make bold causal claims, Dietrich (2020) uses motion tracking on C-SPAN footage to find that cross-partisan mingling in the chamber can predict the partisanship of future votes, even with past votes used as controls.

On the other hand, Rogowski and Sinclair (2012) found a simple correlation between office proximity and voting or cosponsorship behavior to be made insignificant after controlling for network endogeneity and homophily (an affinity for shared characteristics, including race, gender, and/or personality), undermining the causal inferences drawn by prior research. However, their confidence intervals are quite large. Shalizi and Thomas (2011) pose similar warnings about drawing causality from observational social network studies, as homophily-driven self-selection is typically confounded with genuine social influences. Nevertheless, Harmon et al. (2019) address many of the above studies and clarify this literature by using

instrumental variable analysis to determine that there is indeed likely a causal impact from proximity, studying alphabetical seat assignments in the European Parliament (see also Matthews and Stimson 1975, 53). With cautious optimism, then, it seems likely that simple proximity exerts at least some kind of influence on legislative behavior, both on its own as well as by augmenting other mechanisms like friendship and information-sharing.

Ultimately, none of the three above influences—categorized as rational interest, altruism, and proximity—are entirely sufficient explanatory devices alone. For example, Hardin's encapsulated interest trust best serves discussions where game-theoretic analysis is concrete, with clear penalties and clear gains. The costs and benefits of collaborating with another policymaker on legislation, though, are usually amorphous and unclear. Any altruism is also not easily quantifiable in this situation. Similarly, proximity presents difficulties in this instance, because the frequencies with which cohabitating legislators encounter each other at home is not measurable; also, proximity spurs the sharing of information, which can augment rational interest decisions or spark altruistic friendships. Nevertheless, these categories of behavior are useful illustrations of the main types of causal drivers one would expect in this scenario, and they will be the focus of the causality discussion.

At the end of the day, a robust and concise definition of trust is hard for scholars to pin down because it is studied within many different disciplines, occurs at many different levels of analysis (individual, institutional, generalized), it appears in multiple places in the causal chain (it can be a cause, an effect, and a moderator), and it is dynamic across time (Rousseau et al. 1998; Smyth, Gustafsson, and Ganskau 2010; Putnam 2000). Therefore, this paper follows other literature in considering trust broadly and multidimensionally (Braithwaite 2003; Leach and Sabatier 2005). In this case, will span many of the definitions listed above, agglomerated under

the shorthand “trust” but with reference to specific phenomena when appropriate, in particular the encapsulated interest model and the potential influences of altruism.

Such breadth is useful in this instance because trust between roommates involves both interpersonal factors, like socializing, as well as structural enforcement influences, like rent payments and the inevitability of face-to-face confrontations. Nevertheless, some models of trust are likely to be more applicable than others, especially the encapsulated interest model, where relationships are accommodated and prioritized in instances of iterated collaboration among agents. While the trust literature has not yet substantively engaged the social situation of lawmakers who are roommates in particular, there is no reason to suggest that it cannot be applied to such a scenario successfully.

It is important to note that political affiliations can impact social decisions, including one’s choice of roommates. Shafranek (2019), using conjoint analysis on a sample of college students, finds that partisanship (isolated from other characteristics and traits typically correlated with partisanship) could have a strong influence upon collegiate roommate considerations, particularly among people with strong political identities. The same effect is doubtless applicable to congressional living arrangements, and likely much greater in magnitude. For reasons that are perhaps obvious, most members of Congress choose to not share living space with members of the other party: there is a risk of information leaks, stress during tense party conflicts, and strong differences in fundamental beliefs (c.f. Pew Research Center 2017; Taylor 2017; Groenendyk 2018). Smaller but non-negligible versions of these disincentives also exist the further apart the legislators are ideologically, even within the same party (c.f. Zack Budryk 2021). Meanwhile, shared characteristics including ideology and background tend to stimulate social connections and outreach (e.g Block and Grund 2014).

Thus, it is possible both for (1) people who become roommates to collaborate more as a result and (2) people to select roommates with whom they are already more likely to collaborate. This presents a substantial causality problem, which will have to be monitored carefully. As was already discussed with respect to prior findings regarding proximity, it is in fact quite common for observational studies of social networks—like this one—to encounter difficulties with causality due to the confounds of contagion and homophily, which have an effect of self-selection (Shalizi and Thomas 2011). Frank and Xu (2020), writing for *The Oxford Handbook of Social Networks*, recommend that, in the absence of adequate randomization, researchers of interpersonal networks use longitudinal data combined with robust covariates and thorough research behind the mechanics of the network’s influence in order to draw causal conclusions. Accordingly, this thesis uses a difference-in-difference-in-differences examination of longitudinal data as well as an extensive qualitative investigation into the potential causal mechanisms.

1.3 Literature Review – Cosponsorships and Legislative Collaboration

This portion of the literature review seeks to defend the selection of cosponsorships as a proxy for legislative collaboration by outlining their function and benefits, to acknowledge their limitations as a metric, to examine their relevance in a scenario involving legislator-roommates, and to explore supplementary alternatives for qualitative analysis.

Generally, a bill in either chamber of Congress is only allowed to have one legislator listed as a sponsor, although there are some rare exceptions. If other members wish to indicate a level of strong support for a bill, they must sign on as cosponsors; meanwhile, a sponsor will seek out a substantial list of cosponsors to indicate that their bill is popular and passable. The strongest supporters among these are usually “original cosponsors,” a label which designates

those who were cosponsors at the time the bill was introduced. However, more cosponsors can be added as the bill changes and develops. Cosponsorships can also be withdrawn, but this is costlier: it requires action on the floor of the chamber (Oleszek 2018, 2019). There have been no limits on the number of possible cosponsors a bill may have in either chamber since 1979 (Oleszek 2019), covering the full scope of this paper's case studies.

Cosponsorships are a meaningful measure of support and assistance, albeit with limits. Their effect is clearly not negligible: sponsors remain intentional about undertaking the costs of circulating "Dear Colleague" letters to recruit cosponsors, and frequently attempt to reap the benefit of that work by highlighting the quantity and diversity of their bill's cosponsors in floor debates (Campbell 1982). Indeed, seeking cosponsorships is regarded as the mark of an entrepreneurial legislator (Wawro 2001, 30). Wilson and Young (1997) note that cosponsorships—in particular those that signal large-scale bandwagoning or the support of topic experts—can have significant marginal effects at certain parts of the legislative process (namely, in getting a bill to be considered and reported to the floor by a committee), but that in general their impact is quite small. Other scholars have shown that cosponsorship patterns in Congress frequently flow over time from the extremists to the moderates, supporting the idea that cosponsorships are used for intralegislative signaling and coalition-building (D. Kessler and Krehbiel 1996; also c.f. R. K. Wilson and Young 1997).

Finally, it should be noted that at certain thresholds cosponsorships can provide some direct material benefits to the sponsor in the chamber itself. Rarely, bill sponsors in the House will use or threaten to use the discharge petition, which forces their bill to the floor without going through the normal process of being reported from a committee; however, that requires 218 signatures, so representatives have an incentive to prepare a coalition of over 218 cosponsorships

in that case (Krehbiel 1995). As of the 116th Congress, there is also a new “Consensus Calendar” in the House, designed to accelerate the passage of bills with over 290 cosponsors (Oleszek 2019).

However, it should also be noted that cosponsorships are very “cheap” in terms of time, effort, and political capital, and are therefore an imperfect measure for strong support or commitment to a bill. For example, members have shared anecdotes about cosponsoring colleagues’ bills without reading them, just as a courtesy, and related that even if they end up disagreeing with the final bill, they will usually not bother to offend the sponsor by taking time on the floor to remove their name later on (Oleszek 2018). They are also not necessarily representative of members’ support across time. Researchers have even set aside a term for legislators that later take action against a bill for which they are cosponsors: “wafflers,” (Kirkland and Harden 2016; Krehbiel 1995). These are relatively small sources of error, but they are important to consider nonetheless.

Though they may be “cheap,” they are of course not costless—otherwise all legislators would cosponsor all bills—so there are trade-offs that legislators must weigh, and thus there is ample material for rich analysis. One prominent older theory says that cosponsorships are useful for “position-taking”—that they are a particularly inexpensive way to demonstrate legislative productivity to constituents, since the legislator can claim credit if the bill passes without paying much of a price if it fails (Mayhew 1974). However, that theory has been complicated (c.f. Koger 2003) by more recent empirical analysis: there are still some other significant variables at play, and political scientists have typically been able to glean important correlations and conclusions from cosponsorship data. Many are predictable. For example, Harward and Moffett (2010) find that senators are more likely to cosponsor salient bills when they have stronger ideologies, less

ideological difference from the bill in question, experience close elections, have expanded their social networks with other senators, face particular demands from constituents, and sponsor more bills overall. Unsurprisingly, researchers have also found that senators are more likely than members of the House to cosponsor bills from across the aisle (Rippere 2016). Political scientists have conducted studies at the state and federal levels that suggest an additional likelihood of cosponsorship as a result of the legislators' sharing individual characteristics like race, gender, ethnicity, and committee membership (e.g. Bratton and Rouse 2011; Craig et al. 2015). In other studies, cosponsorship has also been positively associated with liberalism (Campbell 1982) and minority party status (Koger 2003), imperfectly associated with policy expertise (Gilligan and Krehbiel 1997), and negatively associated with seniority, especially leadership positions (Campbell 1982; Harward and Moffett 2010). There is also an intriguing variance with the party affiliation of the president (Koger 2003). Working with indirect mutual friends in the legislature—called “transitivity”—also appears to stimulate cosponsorship; reciprocity is a phenomenon as well (Bratton and Rouse 2011; Fowler 2006b), with “mutual” cosponsorships perhaps reflecting self-interest or reflecting a network of consistent altruistic partnerships (see also Battaglini, Patacchini, and Rainone 2019). This paper seeks to expand this available literature by testing another kind of interpersonal tie, roommate status.

Of course, there are more meaningful collaborative actions than cosponsorships that one might prefer to track. Members will collaborate legislatively by providing help with drafting bills, by whipping votes and building coalitions, by negotiating with interest group lobbyists, by speaking in favor of bills, and more (Kaiser 2013). Friendly legislators also assist one another with elections to caucus and committee leadership positions (Marsh 2002), or they might share fundraising lists and help with debate prep. However, most of these actions are informal,

inconsistently tracked, and frequently private, so they are at best anecdotal evidence that can be explored qualitatively. Among formally logged actions that could be analyzed quantitatively, cosponsorships are the best available option for data among other imperfect choices. Roll-call votes or floor debate, for example, would be an ineffectual sample for our purposes, as whether a bill comes up for a vote or debate is subject to many vagaries, most of which are outside of the individual sponsor's control (Wawro 2001, 30). There is one further important limitation to the use of cosponsorship data, however: it is not able to account for any cross-chamber collaboration, as cosponsorships occur separately within the House and Senate. For this reason, one case study in the quantitative chapter has to be segmented over two periods of time.

Remaining Structure

The next chapter qualitatively examines formal and informal instances of collaboration across two selected case studies. Chapter 3 conducts quantitative analysis into cosponsorship behavior among roommates and non-roommates, and it finds a moderate and statistically significant disparity in that behavior, suggesting that there indeed exists a preference for one's roommates. Chapter 4 discusses these two sets of conclusions jointly and lays out implications for policy decisions in the near future.

2 Qualitatively Tracing Residential Socializing: Two Case Studies

*I called up Marty and I said, "We're going to inaugurate Operation Saint Joseph,"—
(chuckling)—he's an Italian saint, just like Marty. I didn't know much about saints until
I started rooming with Marty. (C-SPAN 1991)*

Introduction

The roommate relationship is largely an informal one, and collaboration that derives from it is not delimited to any uniform set of actions. In the most substantive examples, roommates have built proposals together, workshopped each other's flagship bills, co-written reports and congressional inquiries, and built coalitions supporting one another's candidacies for leadership. They each have also connected the rest of their roommate cluster to their own personal resources, reminiscent of prior findings about "transitivity" (c.f. Bratton and Rouse 2011). As such, quantitatively logged actions like cosponsorships can only tell a part of the story when it comes to roommate collaboration, hence the importance of an additional qualitative analysis such as this one.

In this chapter and the subsequent one, I select two case studies from Congress's various groups of roommates, using the following criteria. To have strong samples with a lower risk of confounds, each shared residence must have been host to three or more legislator-residents, and it must have housed only residents who were themselves members of Congress. For ethical and security reasons, I consider only shared residences that have since disbanded, so as to protect legislators' privacy, and only shared residences that intentionally entertained substantial press coverage over their existence, so that all information about them was already public. Finally, the groups must have existed relatively recently, so that the analysis reflects the workings of the modern Congress. These two case studies are the only two residences that fit these criteria, and they bring with them some limitations: for example, all the legislators in question are white men,

and race and gender are known to influence legislative collaboration (Craig et al. 2015). However, the two cases do represent legislators from different parties, which is particularly important since ideology and partisanship are the most significant drivers of collaborative behavior in Congress (Campbell 1982; Harward and Moffett 2010).

The qualitative examination of each case study spans the duration of the group's cohabitation, highlighting instances of inter-roommate collaboration and examining them for explanatory phenomena like proximity, information-sharing, rational interest and trust, or rival non-roommate-related explanations like coincidental policy focuses and committee assignments. It should be said at the outset that, given its non-systematic nature, this qualitative evidence demonstrates what *can* be, but empirically weak as to what *is*. In other words, this section is selective, with a dedicated focus on "positive" instances of collaboration; to draw more robust conclusions, it would have to account for all the other "negative" instances where there were opportunities for collaboration that were not taken up by the legislators in question. Given that each congressional session marks the introduction of thousands of bills and exponentially more informal opportunities for collaboration, it is impossible to qualitatively explore those "negative" non-collaborations in their full depth, though they will be discussed. Many factors affect collaboration, and the status of being roommates is obviously neither a necessary nor a sufficient condition for legislators to collaborate. It may be the case that roommate status is *one possible* contributor (among many others) to some small level of marginally increased collaboration, but the scope of that increase would still vary wildly depending on the legislators' ideologies, personalities, and levels of productivity. The probit regression analysis and difference-in-difference investigation in the quantitative section is a more appropriate technique to achieve a well-grounded empirical conclusion to that particular question.

Instead, this qualitative section seeks to explore the heterogeneous instances of collaboration that go beyond a formal action like cosponsorship and may not be systematically tracked, and to use them as a lens for more insight into the potential scope of roommates' cooperation in a legislature, as well as the mechanisms that may drive that cooperation. No qualitative summary along the particular organizing principle of roommate status yet exists, to my knowledge, so compiling and examining this resource is a useful task and one that may be helpful to later researchers.

2.1 D Street House

Introduction

For decades, a group of Democratic congressional roommates located in a townhouse on D Street (“the D Street house”) attracted reporters and sitcom pitches, and eventually did inspire a fictitious Amazon Prime Video TV series. Much of the coverage of their living arrangement is not particularly substantive, focusing on the members’ unglamorous lifestyle and gleefully recounting wisecracks and anecdotes befitting college living,² for example:

The last time Mr. Schumer tried to bake some cookies for a late-night snack, he couldn't figure out how to turn on the pilot light. His similarly flummoxed roommates ended up calling Hawaii, where the only stove distributor in the United States that was still open came to the aid of the hungry legislators.

...

Mr. Schumer recalls the time that he and a roommate, Representative Leon Panetta of California, chased particularly loud crickets up the stairs at 3 a.m. Both men were wearing their underwear.

...

Over the years, there were infestations of ants, flies, crickets, mice and even rats. "The rats were enormous, like little cocker spaniels," said Mr. Durbin, who famously vanquished one of them with his golf club.

...

² For the record, this author and his four college roommates resent the implication. We have no rats, just mice.

The roommates even banded together to play pranks on other legislators, once pushing the prized new sports car belonging to Representative Robert J. Mrazek, a Democrat from Long Island, to another street so he would think it had been stolen. (Marsh 2002)

However, in each profile of the roommates, the reporters covering them made some other comments that, taken together, suggest the cohabitation generated a unique legislative phenomenon.

The roommates made their political might felt in 1995 when Mr. Schumer, shocked by the cost of a box of Frosted Mini-Wheats, joined forces with a roommate at the time, Representative Sam Gejdenson of Connecticut, to issue a report calling for lower cereal prices.

...

But the roommates also supported one another, both politically and personally. In the early 1990's, Mr. Schumer and his housemates joined forces to help pass the Brady Gun Control Bill, one of Mr. Schumer's proudest accomplishments. When Mr. Panetta ran for chairman of the Budget Committee, his roommates lobbied for his election. (Marsh 2002)

...

Marty Russo of Illinois left after losing his seat in 1992, but not before talking out his proposal for a universal health-care bill with his roomies one midnight when he was not indulging his penchant for doing laundry.

...

It was here, too, that proposals for the alternative minimum income tax and clearer disclosure of credit-card interest rates were hatched... "Chuck always talked to us before he called Janet Reno and told her what to do on the crime bill." (Purdum 1994)

...

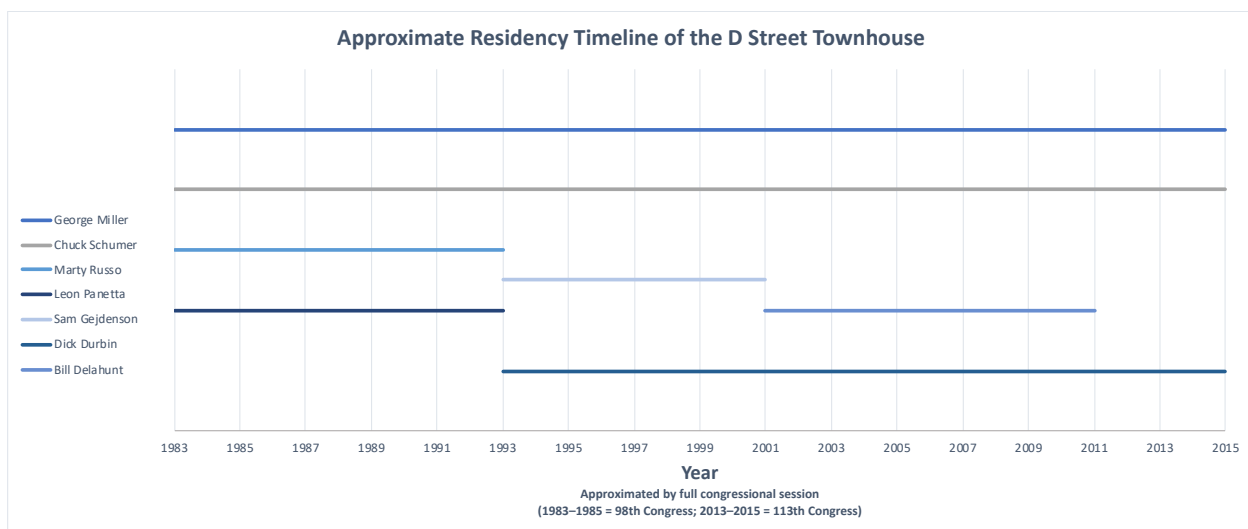
The foursome quickly became a formidable force. They sat on different committees and shared information. (Parker 2014)

The remainder of this section explores this portion of the roommates' story in greater depth, using qualitative evidence to examine the extent to which their cohabitation prompted novel legislative collaboration.

Background

The D Street house was owned by Representative George Miller of California, who had originally purchased it in the 1970s as a family home. After his family relocated back to California for school, Miller began renting it out to fellow members of Congress. First came Marty Russo, a representative from Illinois, who stayed over during a snowstorm in 1982 and found the arrangement preferable to living alone. Next to join were Chuck Schumer and Leon Panetta, then congressmen from New York and California. The quartet would last until 1993, when Russo lost his seat and Panetta was appointed to a position in the Clinton administration. Their replacements were Sam Gejdenson, a representative from Connecticut, and Dick Durbin, another representative from Illinois. Durbin and Schumer rose to the rank of senator in 1997 and 1999, respectively. Gejdenson lost his seat in 2000, and he was replaced by Bill Delahunt, a representative from Massachusetts. Delahunt retired in 2010, leaving just three remaining roommates when Miller decided to retire at the end of the 113th Congress, dissolving the roommate group permanently in late 2014 (Parker 2014).

Figure 1



Over this 32-year span, there were many specific instances of collaboration at a level beyond that of a simple, low-cost action like a cosponsorship. This section will explore each of the major instances.

The Brady Bill

In 1989, Representative Schumer became the chair of the House Judiciary Committee's subcommittee on crime; when the Brady Handgun Violence Prevention Act was re-introduced that year, therefore, he became a prominent supporter and an important stakeholder in the bill's passage. Due to opposition from then-Speaker Thomas Foley (also a Democrat), however, the Majority Whip's office was closed to the pro-Brady faction, so they had to whip votes themselves, with Schumer playing a significant role in managing that (S. Brady and McLoughlin 2002).

When there was a risk posed in 1991 by an NRA-backed "poison pill" amendment by Harley Staggers, Jr., of West Virginia, then, the burden of stopping it fell on Schumer and his allies. Notably, Schumer chose to lean on his roommate, among plenty of eligible moderate Democrats, asking Russo to take on a critical assignment: blocking the Staggers amendment by persuading Brady "no" votes to also vote Staggers down. He succeeded, and the Brady bill passed without the Staggers amendment (McGrory 1991). As Schumer announced at a celebration of the bill's passage, they called the maneuver "Operation Saint Joseph," after Marty's heritage:

And finally my roommate, Marty Russo. And Marty was—when we saw that Staggers was really gaining, and we were worried about it really winning, I called up Marty and I said, "We're going to inaugurate Operation Saint Joseph,"—(chuckling)—he's an Italian saint, just like Marty. I didn't know much about saints until I started rooming with Marty. But in any case, Operation Saint Joseph was to try and get pro-Staggers/anti-Brady

Democrats to vote anti-Staggers as well. And if you look at the results you saw what Operation Saint Joseph did. (C-SPAN 1991)

While Russo was certainly a skilled legislator and negotiator, and a formidable whip (D. Rogers 1986), Schumer may have been uniquely predisposed to trust Russo with the task as a result of their relationship as roommates. As the simple model of proximity would suggest, coordination was doubtless easier given their regular encounters in the D Street house. One might add that shirking Schumer's request would have been harder for Russo, given their frequent contact. Hardin's (2002) encapsulated interest model would also suggest that collaboration between the two was moderated by rational self-interest. Russo was a gun control proponent (King and Weaver 1987), and regularly sponsored his own bills on the matter. The passage of landmark gun control legislation like the Brady Bill would have interested Russo regardless, just as Russo's skill as a whip would have interested Schumer to an extent, whether or not they were living together.

However, neither proximity nor self-interest alone is sufficient to guarantee that specifically Russo and Schumer would have worked together so closely. There is an argument to be made that roommate status aligns those two causal mechanisms; that mutual self-interest enables collaboration, and then proximity cinches the decision. In this way, perhaps living together just increases the frequency of certain fortunate coincidences that would produce more collaboration purely on the basis of rational interest.

There appears to be more than self-interested calculus at play, though. For example, Schumer also references their easy familiarity in that passage, jesting about the title "Operation Saint Joseph." It is likely that the trust-based friendship they built as roommates had an influence in their collaboration too. Theoretically, Schumer and Russo could have altruistically offered

their friend an opportunity for a victory, reflecting perhaps a redistribution rather than new productivity.

This was an example of the analysis this chapter will conduct. As this analysis shows, it is difficult to make a definitive conclusion from the anecdotal evidence, but the most intuitive explanation seems to be that there was a blend of proximity, encapsulated interest, and altruism at play. Such an explanation cannot be modeled very easily, but it is perhaps the most realistic. Below is a summary of the other instances of collaboration the roommates undertook, followed by a more holistic analysis.

The Four Horsemen

In general, the group of roommates, with diverse origins, legislative foci, and power bases, made a name for themselves as uniquely active and powerful for their various ages and ranks, which does not necessarily seem to be a coincidence. They leveraged each other's resources; for example, Russo connected the quartet with Ways and Means power broker Dan Rostenkowski, who dubbed them his "four horsemen" and plugged them in with Speaker Tip O'Neill (D. Rogers 1986). Schumer, Russo, and Miller all lined up behind Panetta in his bid to become the Budget Committee chair, and their support was critical in his successful ascent to the position (Calmes 1987; Cloud 1987). Behind-the-scenes deal-making between Schumer and Panetta was central to resuscitating the Immigration Reform and Control Act (e.g. Shapiro 1984), most notably in working out a compromise to appease California growers concerned about their labor pool; Schumer "immediately turned to Panetta to represent agriculture's interests," pairing him with Rep. Howard Berman to settle provisions of the bill (Cohodas 1986b). As Panetta shared with me in an interview:

We worked through the whole program, with regard to work programs for farm labor and also employer issues, and Chuck would come in and out of that meeting because he was trying to get—he had no direct interest, obviously, in the agriculture issues, but he knew that if we didn't work out a compromise, there wouldn't be a bill, and so every once in a while he would engage just to make sure things were going in the right way. We ultimately arrived at a compromise, and that's what allowed that bill to pass. (Panetta 2021)

Without the compromises they struck, it is indeed unlikely that the bill would have achieved passage (Birnbaum 1987; Cohodas 1986a).

They also relied on each other for informal—and honest—advice: Russo consulted his roommates about his universal health-care proposal, Schumer conferred with them on crime legislation, and Miller gave Schumer ideas about lowering credit card interest rates. Panetta, in his interview with me, added that “When somebody was running for something, the group became kind of the first place to test it out, as to whether it was halfway viable.” As Gejdenson told reporters visiting their home, it was an unusual environment because “you put your idea out there, and the first instinct is not to applaud you. You can run the traps pretty well here,” (Purdum 1994). Following up in an interview with me, Gejdenson highlighted that this was the most unusual aspect of their situation as roommates, relative to interactions with other members of Congress: their hours of uninterrupted time together to share thoughts and advice on what was going on in their lives and their work. As he put it,

If you're ideologically in the same place, philosophically in the same place, it increases the likelihood of cooperation. You've got two or three hours at the end of each day—where you don't have a thousand meetings going on, constituents coming in, press calls, and all the other things—where you actually talk about what you're working on... I think it just generally increases your productivity because, you know, most of these people—there are obviously a lot of legislators who may slack off—but the people I know are workaholics. So having more time to collaborate and work on things just made you more productive. (Gejdenson 2021)

Delahunt agreed when interviewed, comparing the space to something of a “sanctuary,” though he cautioned that

Yeah, but it was all—things were really, kind of more social discourse, you know, what's on TV, you know... So it was much more of that kind of relationship than, “Okay, let's sit down and discuss the details of legislation or policy.” That was obviously a lot of the discussion... We would not talk about bills, per se. It would be—I mean, occasionally it would come up, you know, “Are the votes there for that?” or “So-and-so is opposed.” But they were more—usually that would not occur. It would occur on occasion but the disagreements we had were, were minimal. And they were really predicated on friendships... You probably wouldn't have those conversations elsewhere, because if they were elsewhere, they would probably be more formal. And this was a relaxed environment where you had the advantage of trust, friendship, that you know will allow a very candid discussion about, you know, “What do you think about this? What do you think about that?” It wasn't done in any kind of a formal setting; it was done in a casual setting. (Delahunt 2021)

In this way, being in a cluster of roommates seems to serve as a useful way to gather information about goings-on elsewhere in the Congress, about potential obstacles to the passage of one's bill or initiative, and about the workings behind the different issues one's roommates may focus on.

Panetta agreed about the potency of their social ties:

We would talk at the house or, you know, in the group, about whatever was happening legislatively or whatever was concerning us about the leadership, or what decisions that had been made or, schedules, et cetera, et cetera. Everything... And in the process of doing that, you know, particularly as it came to legislation—Russo was on the Ways and Means Committee, George was on Education and Labor, I think Interior as well if I recall, and Schumer was on Banking and Currency at that time... and I was on the Budget Committee, chair of the Budget Committee, and also on Agriculture so, you know, as bills—If there was a major bill that was coming to the floor, that we had concerns about or what-have-you, I mean, we would talk about how best to, you know—what was the best strategy to try to deal with the bill, and, you know, what concerned us about the bill, whether there should be amendments, et cetera. And in some ways, it became kind of a lobbying group to try to persuade the leadership to, you know, to handle it in a certain way and I think sometimes we got, sometimes we got things done and sometimes we didn't, but it clearly became a vehicle for collaboration. (Panetta 2021)

Partially in jest, Panetta, who later served as the director of the Central Intelligence Agency, went on to compare their social ties to an intelligence network. This is actually an apt illustrative device: suddenly, the roommates were able to access four streams of information every day, rather than just one.

On a number of occasions, the collaboration would go beyond just talking: Schumer and Russo co-proposed an anti-drug and anti-crime government trust fund, for example (Elving 1990), as well as an alternative minimum income tax proposal (Birnbaum 1985), parts of which were enacted in the 1986 tax reform bill. For another example, Miller's nudge to look into credit card interest rates soon sparked a major legislative campaign on the issue from Schumer (Sternberg 1986). Miller, Schumer, and Russo also confronted House Armed Services chairman Les Aspin together to remedy wasteful defense spending (McGrory 1985), and collaborated on an amnesty proposal to collect back taxes (Dewar 1986).

Schumer and Gejdenson made waves in 1995 for a rather unique legislative campaign against high cereal prices, inspired directly by their apartment's grocery shopping (Margasak 1995).³ The two collaborated to release a report outlining corporate practices, the rise in cereal prices relative to other foods, and the presence of an oligopoly in the cereal market. The report asked for an antitrust investigation from the Justice Department, but they never got one, so they began releasing annual reports together and claimed a small victory after Post Cereal cut its prices in 1996, sparking cuts across the market (Salant 1997).

Later on, Delahunt would serve as the House sponsor for a bill by newly-elected Senator Schumer to permit cameras in federal courtrooms (McCaffrey 2001). Durbin would also join Delahunt in proposing an Enron-inspired workers-rights bill (Tumulty 2002). Schumer also

³ (None of them cooked, so cold cereal was a staple on D Street.)

revised legislation on fashion piracy previously put forward by Delahunt (Randall 2010). A Durbin-Miller alliance was central to a successful petition holding up Bush Treasury Secretary nominee John Snow in exchange for promises about corporate pension plan conversions (Tumulty 2003); the two also put forward proposals to improve student loans (Steiner 2006; D. Mitchell 2007), and teamed up to call for investigations into meat safety (Benton 2008) and into for-profit schools (Lewin 2010). Among others, Miller and Delahunt collaborated in responding to the Abramoff scandal (Shenon 2005), and on offshore drilling regulations, with Delahunt having reportedly “also raised the issue informally with his Capitol Hill housemate, California’s George Miller... the former chairman of the Natural Resources committee,” (Wangness 2008). Delahunt, whose Massachusetts ties connected him with Barney Frank and Elizabeth Warren, also brought Warren’s idea for a financial product safety commission (eventually the Consumer Financial Protection Bureau) to the D Street group for support, and Durbin and Schumer soon introduced a Senate version of the legislation. This was not entirely a roommate effort alone, though, as Delahunt co-introduced the House version with Representative Brad Miller (D-NC) (Chesto 2009; Draut 2009; Delahunt 2021). The issue entered broader discussions on financial reform, and eventually did become part of the Dodd-Frank bill (c.f. Kaiser 2013).

The roommates were not always on the same side of issues, and experienced disagreements. Panetta (2021) shared that Russo, a relatively conservative Democrat, and Miller, a California liberal, would occasionally oppose one another on certain matters. Roommate status also does not override something like the interests of their home districts: Gejdenson shared an example when he worked against Durbin and Schumer on import tariffs that were lower depending on the degree to which processing was done in America, because Gejdenson’s district had an important mill processing raw wool while suit manufacturers in New York and Illinois

would have benefitted from importing processed wool at a cheaper rate (Gejdenson 2021). Finally, though they moved out in late 2014, the friendship Schumer and Durbin had built as roommates did not stop them from vying against one another for Senate party leadership positions in 2015. Nevertheless, it moderated the tense competition between the two, with both pledging “not to let this dispute ruin their decades of friendship” (Kane 2015a).

Analysis

These instances of collaboration are varied in scope, and they cover most informal and formal aspects of the legislative process. On the one hand, there are simple, low-cost interactions that seem to be sparked by ease of access and familiarity, like the late-night chats about legislative proposals, Schumer’s turn to Panetta during the immigration negotiations, and Miller’s suggestion about credit card reform. One could argue that proximity, encapsulated interest, and altruism are all viable mechanisms to explain these interactions. Indeed, Gejdenson’s quote about how “You can run the traps pretty well here” (Purdum 1994) suggests that collaboration was happening sincerely; in other words, as one might expect, that this was not just a world of material interests and quid pro quos. Panetta, Gejdenson, and Delahunt reinforced this point in their interviews with me, citing the friendship as the most important net gain from spending time in the D Street house.

The same principles apply to the more substantive instances of collaboration listed, like the co-authoring of new proposals, assistance in leadership elections, coalition-building and expending political capital (e.g. the Brady Bill), and connections to outside resources (like Chairman Rostenkowski). The roommates all advanced their own political goals by sharing their networks and enabling one another’s achievements: at least in hindsight, then, rational interest

trust is equally as persuasive of an explanation as social psychology. This may not be surprising, as congressional productivity is traditionally tied to social ties anyway. As Panetta put it,

It's all about human relationships, That's what makes the Congress work or not work. Those human relationships can be pretty basic, in terms of an ability to meet and to know somebody and understand what their problems are and what makes them tick. And, you know, the ability to kind of room together, it's a little bit like taking a permanent trip abroad. Those trips abroad help you understand each other. You get to understand, you get to know their families, you know them in a different situation than just on the House floor, and it does build human relationships. And, you know, I think anybody who lives with other roommates who are members of Congress—usually, those relationships become more than just the ability to kind of live together. They actually can become vehicles to get things done on legislation. (Panetta 2021)

Putting the particular causal vehicle aside, the qualitative evidence does seem to indicate that living together did induce some level of additional collaboration among these congressional roommates beyond just sharing information, too. As Gejdenson and Delahunt mentioned, being roommates essentially unlocked a new period of time for informal productivity, as they could spend late-night hours chatting or strategizing with their other knowledgeable roommates about the various issues of the day. The most illustrative example from this section may be Gejdenson and Schumer's yearslong war against cereal prices, where every component of the cooperation—from the topic to the partnership—seem to have derived directly from their living arrangements.

Of course, it is also the case that not all four roommates joined in on every initiative together; clearly, there is a complicated nest of preferences behind legislative decisions, and being roommates can only ever be one facet of that larger picture. Naturally, there are rival explanations that could explain some points of collaboration. Most of the roommates came from safe blue districts (c.f. Harvard and Moffett 2010), with the exception of Sam Gejdenson; they also broadly agreed on most liberal policy positions (Delahunt 2021; Gejdenson 2021). Ideological agreement and similar district composition are two of the most predictive indicators

of legislative collaboration (Campbell 1982; Harward and Moffett 2010). On the occasions that they had significant disagreements, these were also produced by political differences, for example those between Russo and Miller.

Similarly, by the end of the D Street house's tenure, most of its members were fairly senior in Democratic leadership, and they would have been expected to work together as party leaders on large projects. For example, Durbin and Miller featured prominently in the effort to extract promises on pension plans from Treasury nominee John Snow, but they were not alone—they led the petition alongside Senators Sanders and Harkin, and eventually were supported by over 200 members of Congress. Durbin was the new Democratic Whip at the time, and Miller was the senior Democrat on the House Committee on Education and Labor, so they both already had natural positions at the fore of that particular initiative.

Nevertheless, the qualitative evidence available does seem to support the idea that living together enables and encourages cooperation in ways not captured by either above rival explanation. The most convincing example is the high degree of “background” cooperation happening through information-sharing, followed by the substantial collaborations undertaken on committee and leadership elections, cereal prices and the Brady Bill. In all cases, the causal mechanism appears to be a mixture of encapsulated interest, altruism, and simple proximity. It is also important to note that this increased collaboration appears to be conditional; for the collaboration to occur, according to interviews with former D Street roommates, there needed to be basic ideological compatibility on the issue as well as compatibility based on state or district interests. Additionally, collaboration was much more likely to occur on issues where the roommates shared a legislative focus (Delahunt 2021; Gejdenson 2021).

2.2 The Shimkus House

Introduction

More recently, a group of Republican congressmen in a group residence in southwestern Washington received some publicity of their own. Hosted by Rep. John Shimkus in a townhouse that could fit up to four roommates, the group shared similar convivial stories to interested reporters, although the coverage was sparser than that of the house on D Street. Legislation was again not a direct, structured focus of those conversations. Roommates cited other informal perks: Rep. Gresham Barrett appreciated the accountability the arrangement provided, for example (A. Mitchell 2012). Rep. Erik Paulsen called the group his best friends, sharing that

We usually carpool in. Shimkus drives. He sends an email every night for the time in the morning. It's like being in college again. They're great, and the nice thing is they're all family guys, and so at night we'll all tell what's going on with our families.” (Semnani 2011)

Indeed, by and large, the press coverage follows the D Street archetype, gleefully sharing anecdotes of fraternity-style living while parenthetically suggesting a level of collaborative engagement on legislation and politics:

They subsisted on beef jerky, Dairy Queen and popcorn; left piles of dirty clothes on the floor; and conducted sensitive legislative negotiations from a beat-up faux leather couch held together by duct tape. (Bade and Cheney 2018)

...

Their shared politics help: Policy discussions tend to creep up amid viewings of the western movie “Tombstone” or of endless sports coverage on ESPN, Mr. Shimkus said. (K. Rogers 2017)

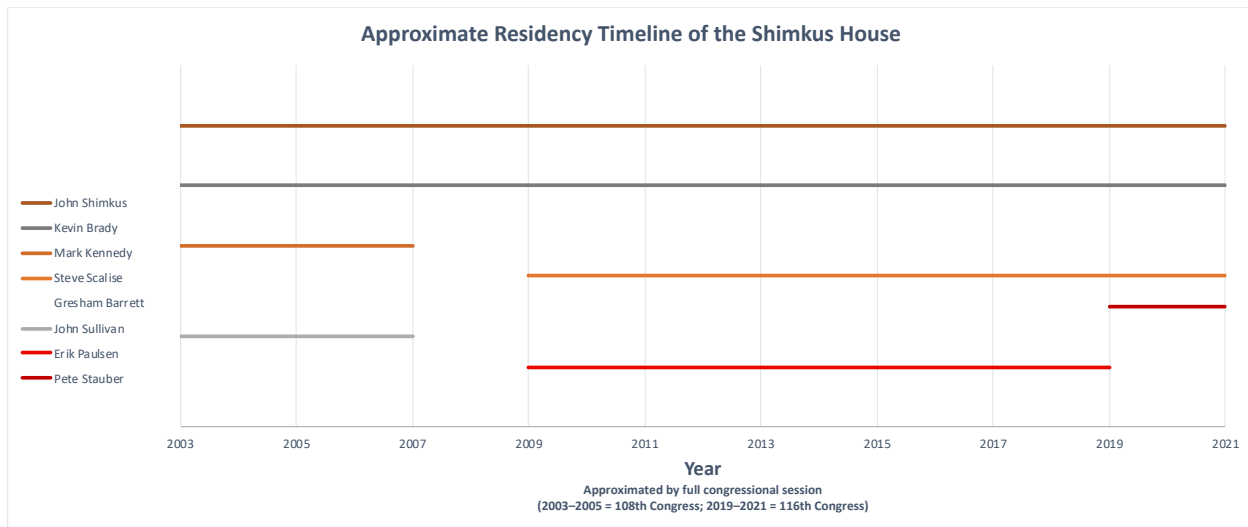
Given the apparent parallels with the Democratic roommates, these Republicans are an ideal case study to further examine aspects of informal legislative collaboration in a wider group independent of party affiliation or ideology. This section will again focus on qualitative

evidence, in an effort to inform the more rigorous but more descriptively limited empirical investigation in the following chapter.

Background

Shimkus purchased the home in 2002 and was initially joined by Reps. Kevin Brady of Texas and Mark Kennedy of Minnesota (Eder 2002). Reps. John Sullivan of Oklahoma and Gresham Barrett of South Carolina were members of the group for short stints in the early years (Branch-Brioso 2004; A. Mitchell 2012). The longest lasting combination of roommates consisted of Shimkus, Brady, Erik Paulsen (R-MN), and Steve Scalise (R-LA), who were together for a decade.

Figure 2



Already having received attention for their fondness for baseball, the home drew particular focus in the wake of the 2017 congressional baseball practice shooting, as victim Steve Scalise was a roommate. All four roommates regularly participated in the annual Congressional Baseball Game (Mershon 2011; K. Rogers 2017), and they became a more serious support network for each other as Scalise recovered in the hospital.

The group also made some waves after a Food Network-themed goodbye dinner montage they put together for outgoing roommate Erik Paulsen, who had lost his re-election bid (Gray 2019). He was replaced by fellow Minnesota Rep. Pete Stauber in the 116th Congress. Finally, with John Shimkus's retirement at the end of that session, they split up in 2021.

Instances of Legislative Collaboration

The instances of collaboration between these roommates are similar in form to those of the house on D Street, but perhaps more conventional. Sullivan was an original cosponsor of a bill by Brady that would have exculpated law enforcement officers from certain mandatory minimums, for example; Barrett later joined as well (Ranjan 2008). Sullivan and Brady were also two of four main proponents of a natural gas bill in 2011, shortly after Sullivan had moved out (Singh 2011). However, the primary impetus for the bill came from external influence by financier T. Boone Pickens, so the roommates' role in shaping the legislation together may have been limited.

Similarly, Shimkus was one of three original cosponsors for a bill Paulsen sponsored providing for accelerated access to early-stage devices and procedures for seniors on Medicare who are willing to pay out of pocket for them. (Hollis 2015); the two also were part of a small group of original cosponsors for tax credits for clinical research (Durkin 2015). More informally, Commerce Committee members Shimkus and Scalise also bandied around the idea of rewriting the 1996 Telecommunications Act to suit modern technology. (Capitol Hill 2016; McCabe 2016). Shimkus even cited his relationship with Scalise on the House floor, saying

In fact, I did mention in my opening statement President Obama talking about a new, green—moving on a carbon bill would include opening up more OCS. I mean that was a week before this disaster happened. So do you think—and I rely a lot on my friend and colleague and roommate, Steve Scalise, on some information on Gulf issues. Is a

moratorium an appropriate response, stopping operating wells that are, you know, operating in line right now? Is that a proper response? I understand doing research on the disaster, but a moratorium, Secretary Norton? (Shimkus 2010)

The foursome was also collectively nominated to collect NRCC dues in 2014. They made it a competition—the loser had to do housework. They exceeded expectations and raised over \$25 million (Livingston 2014; R. Wilson 2014).

Perhaps the most productive committee partnership between the roommates was between Brady and Paulsen on Ways and Means. Brady, who became chair, made Paulsen's Protect Medical Innovation Act part of a jobs package passed by the House in 2014 (K. Brady 2014). They also collaborated closely on an R&D tax credit (Viana 2011), a medical device excise tax moratorium (Zach Budryk 2018), and the larger tax reform proposals in the 115th Congress (Coolican 2017). How much of this collaboration was sparked by their status as roommates or by their being on the same committee is difficult to determine, though. In an interview with me, Paulsen agreed that there appeared to be a mix of both factors:

Yeah, probably. And I think that's just because we were on the same committee, right. It just sort of lined up that way. We were also probably the two that spent the most time in the townhome in front of the TV set, doing stuff. And so, yeah, we would always talk about what's coming up in committee, you know, so that was an easy connection for us. (Paulsen 2021)

Paulsen shared that he was able to discuss issues in his portfolio with Brady and the other roommates, like medical technology, and that they were able to build an awareness of the others' state issues by conversing with one another and even visiting one another's states. Brady visited Minnesota, for example, and Paulsen visiting a drilling platform off the coast of Louisiana with Scalise (Paulsen 2021).

The two roommates to most visibly collaborate were Brady and Scalise after they rose to the ranks of Ways and Means chair and Majority Whip, senior positions in House GOP

leadership. In particular, they collaborated on new healthcare tax credits and other tax plans (Schillinger and Aronson 2016), and co-wrote op-eds in *USA Today* and *The Hill* on the estate tax and the USMCA trade agreement, eventually working together to pass a repeal of the estate tax in the House (Baker 2015; K. Brady and Scalise 2015, 2019).

Indeed, in a close parallel to the D Street group, the roommates frequently leveraged each other's aid to achieve new positions on committees and in leadership. Paulsen shared that he received advice on running the Joint Economic Committee from Brady, his roommate and the former chairman:

They would help navigate those kind of things, because 1) they had experience doing it, and 2) they really wanted me to be successful in my goal, whatever it was... Actually, for Kevin Brady, he and I were particularly close because he was a chairman of the Joint Economic Committee. I got on that committee, and then I became chairman of that committee, and so... he was able to give me some really good insight about how to sort of structure the committee: you know, some good issues to focus on that might be well received on broad audience-level of economics. (Paulsen 2021)

Scalise supported Shimkus's failed bid for the chairmanship of the Energy and Commerce Committee (Bade 2016), for example. Notably, Scalise and Brady were a powerful alliance against John Boehner as they contested his vision for the GOP in 2014; the two rose together in concert, with Brady backing Scalise for Majority Whip and Scalise backing Brady for House Ways and Means in turn (Alberta 2014a, 2014b; Costa 2014). Most surprisingly, Shimkus also supported Scalise in his bid to become whip, despite the fact that a fellow Illinoisan, Peter Roskam, was a serious contender in the three-way election. This even deprived his home state of any representation in House leadership. Ideology was likely not a major issue, either—Shimkus, Roskam, and Scalise were all members of the right-wing Republican Study Committee (Alberta 2014b; Sweet 2014). It is therefore possible that the roommate tie played a surprisingly potent role here.

This is not to imply that the roommates were never crossways on issues. For example, in another example of incompatibility between state and district interests, Shimkus and Scalise wound up on opposing sides of a “gang of four” tasked with negotiating a federal biofuels mandate (Harder 2013). They also had significant disagreements on the Trump presidency, with Brady and Scalise supporting him and Shimkus and Paulsen denouncing him. There were even simple communications misfires: Shimkus and Scalise once planned competing trips for the Commerce Committee, one to Yucca Mountain and the other to an offshore drilling site (Koss 2015).

Analysis

For one reason or another, there is less documentation about the residential relationship these Republicans had and the impact it may have had on their legislating. Perhaps they just had less contact with the media, perhaps reporters were less interested in the second “frat house” than the first, or perhaps there was just less occurring to report on. Even if there were less collaboration happening, that might not be because they were less inclined to do so with one another; prior literature has suggested that conservatism and cosponsorship are weakly negatively correlated, for example (Campbell 1982), positing that activism is generally associated with liberalism. If anything, this group spent more time together—baseball practices, carpooling to work with Shimkus—and, in light of Scalise’s shooting, successfully endured more collective trauma than the D Street roommates, so social-psychological influences may be even stronger among these legislators. Indeed, Paulsen, like the D Street roommates, cited the roommates’ personal friendships as often the important benefit and the most important motivator when it came to assisting one another:

I would say it was a huge value in increasing collaboration because, when you're spending time with people socially, and you're getting to know them and their families, and you're becoming friends, you're more apt to want to help each other to give advice to offer insight. You learn about which other colleagues are active on certain pieces of legislation or bills and you kind of share those little, "Oh, you may want to talk to so-and-so," you know... I think the altruism—sort of, the friendship component, was the most valuable because genuinely you find your roommates want to help you. (Paulsen 2021)

Since the fundamental principles of the collaboration occurring do seem to be similar to that of the D Street house, it is reasonable to continue under the assumption that their behavior will be roughly comparable and can be explained using the same schema.

The encapsulated interest model of trust seems to again be a reasonable way to analyze a portion of the roommates' cooperative behavior. Brady, Paulsen, and Scalise, for example, appear to have engaged in teamwork with one another particularly frequently. Brady as Ways and Means chair accommodated Paulsen's interests by incorporating his bills into tax packages; Paulsen, in turn, likely tailored those bills to Brady's interests accordingly. Naturally, this benefitted both legislators' self-interest, as they were able to claim legislative victories. In a more realpolitik scenario, Scalise and Brady had to carefully account for each other's interests in their bid for House leadership. That their alliance has held successfully across the years, though, could require an explanation involving additional altruism within their relationship. Otherwise, according to Hardin's encapsulated interest model, that would have to be a very stable alignment of mutual self-interest.

A particularly dramatic example is John Shimkus's choosing to support Scalise over Roskam in the majority whip election; it is unclear whether Shimkus was furthering or hindering his own material interests by supporting Scalise over an ideologically-aligned member of his own state's delegation. Nevertheless, just as Durbin's and Schumer's priorities regarding their relationship moderated their competition for Senate leadership, Shimkus's priority in accounting

for his roommate's interest may have significantly influenced his decision. Given that Shimkus's thought process is not observable and that the caucus election process occurs behind closed doors, it is impossible to rigorously determine whether that came from simple self-interest, greater altruism toward Scalise than Roskam, greater knowledge of Scalise than Roskam, or simply a belief that Scalise was the better candidate.

As was the case with D Street's residents, it is important to also note the instances in which the Shimkus roommates did not collaborate. Naturally, not all of them participated in every initiative together, and roommate ties are only a small part of all legislative decision-making. Again, rival explanations should be tested and weighed as much as possible. For example, ideology and district alignment are strong indicators of legislative collaboration (Campbell 1982; Harward and Moffett 2010). Strict ideological ties may have become weaker than those within D Street in this instance given the roommates' later split on the Trump presidency. Similarly, while most the roommates came from safe red districts (c.f. Harward and Moffett 2010), Erik Paulsen did not, and he was one of the most prodigious collaborators within the group. These questions will also be tested empirically in the following chapter.

A more competitive rival explanation has to do with seniority and committee roles. Brady and Scalise were senior members of Republican leadership and therefore would have worked together regardless on large flagship GOP initiatives like tax cuts and healthcare reform. At a smaller scale, when advancing legislation, members of Congress work most closely with those colleagues who sit on their committees and subcommittees. This is true both because that is where the bulk of the work of writing and approving a bill occurs, and also because the members of that committee are likely to have relevant policy expertise (Gilligan and Krehbiel 1997). This could likely account for a large degree of Paulsen's collaboration with Brady; again, given the

anecdotal evidence and the absence of a robust counterfactual, more rigorous analysis is impossible here. Committee membership is included in Chapter 3's empirical analysis, and does tentatively indicate that, to an extent, roommate status and committee membership seem to act almost as partial substitutes when it comes to augmenting cooperation. This is intuitively persuasive and will be discussed further in Chapters 3 and 4.

None of these rival explanations seems to fully account for the degree to which the roommates accommodated and supported each other on their various ascents and initiatives. In particular, Shimkus's support of Scalise in the whip election is a striking example. Roskam was both more senior than Scalise as the then-Chief Deputy Whip and had also worked closely with Shimkus on energy issues, even co-introducing a bill with him called the Energy VISION Act (Tankersley 2008), similar to the opportunities to collaborate that Shimkus and Scalise may have had on the Energy and Commerce Committee. Most importantly, Shimkus and Roskam were likely more aligned on both politics and strategy, evidenced later when both shied away from Donald Trump's presidency; Scalise, meanwhile, embraced Trump. Nevertheless, Shimkus opted to support his roommate.

Therefore, the qualitative evidence available also seems to align with the expectations of a blend of encapsulated interest trust and altruism among the Shimkus roommates, prompted by their proximity and frequent interactions. Those factors do seem to have produced additional collaboration within that group, and to have enhanced the productivity of members of the group as they sought advice on moving their own initiatives forward. Again, this is only anecdotal support for the hypothesis that being roommates improves collaboration among these legislators.

2.3 Conclusions

Across both case studies, it seems that the unique, defining characteristic of a roommate cluster is the duration of time spent together, and the informal, relaxed way in which that time is spent. This is essentially productive time that does not exist in the same way for other people; really, the only rival productive use for these late-night discussions might be something like reading or writing documents. In this sense, rather than primarily redistributing productivity, it seems that legislators living in roommate arrangements have made their late nights both more efficient and more enjoyable by sharing knowledge, advice, and interests with each other.

The beneficial attribute cited by most congressional roommates is the expansion of one's personal network, in terms of information gathering, receiving advice on procedure, and gaining new contacts to reach out to during the legislative process. In other words, in these shared residences, one legislator gains access to the resources normally available separately to four legislators—or at least partial access. As Panetta (2021) put it, the social ties they built “expanded their sphere of influence.” The fact that the Republican group managed to collect more NRCC dues than expected may also be an illustrative way to reflect the value of that expanded outreach. Essentially, this is a network externality for congressional productivity, where one legislator's potential output is increased by the presence of roommates, and vice versa. Certainly, that network effect will not be consistent once greater quantities of cohabitating legislators are reached, but the qualitative evidence consistently indicates that at least this version—roommates in small groups—is quite useful. For reasons that remain unclear, that effect seems to be especially powerful with respect to committee and leadership elections. Paulsen makes a note that there could be a two-way causality on that issue, referring to Scalise's whip election:

You know, I think it was fairly easy to sort of lock up your roommates and get their support, right, or get insight of who else to talk to, or kind of what was happening in the

conference. And on the flip side, if someone else was running against him, they would kind of know okay, well, you know, Brady, Shimkus, and Paulsen are already with Scalise, because that's kind of how those things go, you end up just picking somebody—but again that's that's a good example of actually helping folks, or giving advice on how to get on a certain committee. (Paulsen 2021)

There thus appears to be a natural social ordering happening, where both the roommates recognize that they are going to support the friends they share a home with and others recognize that those roommates are more likely to stick together. If there were many more clusters of roommates, perhaps one would observe a phenomenon similar to the 19th-century boardinghouse voting blocs when it came to leadership elections like these.

Either way, from the above qualitative investigation, it seems like there are several necessary conditions that must be satisfied before substantive collaboration on legislation between roommates can occur: their districts must have compatible interests on the issue at hand, and they must have a degree of ideological compatibility. (Though Paulsen, a moderate Republican, signaled that he was open to similar arrangements with Democrats, at least in theory.) There is also an additional catalyzing element: legislators are more likely to collaborate if they share what Delahunt described as “issue portfolios,”—like a focus on foreign policy, financial services, or healthcare—or similarly, if they are members of the same committee or subcommittee. This further increase in collaboration ostensibly occurs both because they are mutually self-interested in the passage of that species of legislation and because they are more likely to be policy experts and thus better able to assist one another. Direct comparisons with committee membership and ideology will take place in the following chapter.

3 Quantitative Analysis: Empirical Tests, Case by Case

If you had, let's just say, 80 other people all living together, four roommates each in 20 houses, I can pretty much guarantee you'd have increased productivity and collaboration among those sets of roommates, that will expand the other sets of roommates... because you're going to get tips and advice on how to connect with other people. (Paulsen 2021)

3.1 Introduction

Anecdotal evidence alone is insufficient for the purpose of reaching any clear conclusion about the significance and magnitude of the effect roommate relationships can have on legislative collaboration. This chapter therefore undertakes an empirical investigation—using cosponsorships as a quantitative proxy for collaboration—in order to more comprehensively understand the extent to which additional cooperation can be traced directly to a roommate tie, isolated from covariates like ideology, seniority, bill popularity, legislators' productivity, and more. This section finds that roommate status is associated with an increase of approximately two percentage points⁴ in the likelihood of cosponsorship. This is a substantial finding given the overall low probability of cosponsoring any one particular piece of legislation: in these samples, within one's own party, that probability is just over 8 percent,⁵ so the increase is equal in magnitude to about 20-25% of the average rate of cosponsorship; it is about half of the magnitude of the effect associated with being in the same party.⁶ However, the empirical

⁴ Means of the effect range from 1.73 percentage points in the first D Street sample to 2.54 percentage points in the Shimkus sample. The second period of the D Street sample produced odd results that are unlikely to be externally valid.

⁵ In the sample of D Street roommate bills, the likelihood of cosponsorship on average for non-roommate Democrats was 8.33%; for non-roommate Republicans in the Shimkus House sample, the average probability was 8.55%.

⁶ In the first period of the D Street sample, it was equal to 54% of the magnitude of the effect associated with being a fellow Democrat, and it was 40.8% of the magnitude of the effect associated with being a fellow Republican in the Shimkus sample. The second period of the D Street sample produced odd results that are unlikely to be externally valid.

findings regarding causality are not as clear or convincing as those regarding correlation, as a difference-in-difference-in-differences quasi-experiment is unable to resolve the question of causality, albeit with an imperfect sample.

Hypotheses

This paper's overall hypothesis, stated in Chapter 1, is that legislators who cohabit will undertake increased legislative collaboration together. As discussed in the literature review, cosponsorships are systematically tracked and serve as a fully observable metric of collaboration that have been shown to reflect social networks (Battaglini, Patacchini, and Rainone 2019; Bratton and Rouse 2011; Craig et al. 2015; Desmarais et al. 2015; Fowler 2006b). Therefore, the quantitative analysis utilizes cosponsorship decisions as a dependent variable in order to approximate the relative quantity of collaboration, tested against roommate status as an independent variable alongside a number of exogenous control variables like ideology, partisanship, committee membership, and more. Based on the goals of the paper and the extant information covered in Chapter 1's literature review, I test a number of primary and secondary hypotheses.

Primary H1: The roommate relationship is associated with increased rates of cosponsorship among roommates.

Primary H2: The roommate relationship causes increased rates of cosponsorship among roommates.

Secondary H3: Ideology is closely tied to rates of cosponsorship.

Secondary H4: Legislators with higher productivity are associated with greater rates of cosponsorship.

Secondary H5: Seniority is negatively associated with rates of cosponsorship.

Secondary H6: Minority party status is associated with greater rates of cosponsorship.

H1 and H2, the primary hypotheses proposing a tie between roommate status and elevated rates of cosponsorship, are distinct in that H1 tests for an association while H2 tests for causality. In other words, H2 tests between three possibilities: roommate status induces collaboration; lawmakers are simply already more likely to collaborate with those whom they select as roommates; or there is a mix of both causal influences. H2 will be tested with a difference-in-differences approach. For example, if the differences in cosponsorship behavior between roommate and non-roommate sponsors significantly increase when members of Congress join the shared residence after controlling for any other trends in cosponsorship behavior among the existing roommates, then it becomes quite likely that we can assign roommate status as the cause of increased collaboration with the roommates. If that marginal increase is positive but substantially smaller than, say, the average marginal increase of two percentage points, then there is likely a mix between a causal relation and a self-selection effect diluting it. Finally, if there is no significant divergence in behavior, a causal relation cannot be attributed quantitatively. Meanwhile, H1 will be tested for correlation using regular probit regression analysis. These are empirically falsifiable expressions of the two primary research questions being investigated in this paper: is roommate status correlated with elevated collaboration, and does roommate status *cause* elevated collaboration?

The secondary hypotheses, H3 through H6, are included as references to the results of other studies; their purpose is to signal the external validity of the primary results regarding H1 and H2. Should any secondary hypothesis not be supported, this paper would effectively be contesting the conclusions of other, more comprehensive studies, and the real-world applicability

of these results would become spurious. H3 posits that ideology is closely tied to cosponsorship decisions, a standard finding in the literature. Specifically, greater cosponsorship rates are associated both with greater ideological extremity within the party in question as well as with greater ideological proximity between the legislator and the bill (Campbell 1982; Harward and Moffett 2010; D. Kessler and Krehbiel 1996; Koger 2003). A simple first-dimension NOMINATE score for the legislator is used as a proxy metric, which captures these effects jointly and satisfies its purpose as a control, although it does not isolate each sub-effect from the other perfectly. Nevertheless, both extremity and proximity can still be observed for trends at a finer grain within the graphical marginal effects analysis that I conduct. H4 is fairly straightforward: legislators have different levels of output, energy, and activity, so those with a greater output of sponsorships and cosponsorships are more likely to cosponsor any individual bill (Campbell 1982; Harward and Moffett 2010). In this case I account for the productivity of the bills' sponsors by tracking how many bills they sponsored in the session, and for the productivity of the other legislators by tracking how many bills they cosponsored in the session. The latter is an imperfect metric as it is slightly circular; however, the average volume of cosponsorship is so high that the effect is negligible. H5 states that seniority (measured as terms served) is associated with decreased cosponsorship activity, a common finding in the literature (Campbell 1982; Harward and Moffett 2010; D. Kessler and Krehbiel 1996) that appears to result from more senior legislators conserving their political capital, since it is more valuable. Finally, H6 submits that legislators in the minority cosponsor bills at a higher rate, a curious finding in prior literature but one that does appear to be significant; cosponsorships become a more valuable tool for minority party members to define themselves and their philosophies, for example, since their own legislation is unlikely to pass (Koger 2003).

Data, Variables, and Methodology

This section uses cosponsorship data from the House of Representatives to quantitatively test for collaboration among the legislator-roommates from the two case studies examined qualitatively in the previous chapter: the D Street and Shimkus groups. Because members of the D Street residence ascended to the Senate beginning in 1997, that data is partitioned into two periods: one before 1997, and one after 1997, where the use of only House data and inaccessibility of cross-chamber collaboration metrics artificially alters the visibility of collaboration and diminishes the quality of the sample. Those in John Shimkus' residence, meanwhile, were exclusively members of the House, and therefore only one period is needed for them. Four probit regressions are run on each group, labeled R1-R4 each time to facilitate apples-to-apples comprehensibility.

The dataset primarily derives from a GovTrack crawl of THOMAS data from the 94th-117th Congresses preserved online by James Fowler (2006b, 2006a; 2017). It is formatted as a record of every cosponsorship action taken on a bill, so the unit of analysis is bill-person-action. Selecting just House data, I expand this dataset to include all those who did *not* cosponsor the bills in question, so that there are consistently approximately 435 actions observed per bill,⁷ with thousands of bills being logged per session. In order to keep the focus on substantive

⁷ This number is usually greater than 435 and varies with mid-session special elections. Since the finest-grained unit of time available is a congressional session, there are artificial “cosponsor = 0” values during the periods where the legislator in question may not have occupied the seat at the time of the bill’s introduction. This is a small source of error, but it may depress non-roommate cosponsorship averages slightly and thereby overaccentuate the difference between roommates and non-roommates. This is because the phenomenon disproportionately affects non-roommates: only one roommate (Scalise) was elected via special election, and that rump term is excluded from his tenure as a roommate.

collaboration, I keep only bills designated as “important” by GovTrack. In the section of that data used here, spanning the 97th through the 114th Congresses, there are 42,117,175 bill-person-action observations spanning 95,259 “important” bills. I exclude actions by non-voting delegates from the territories and the District of Columbia, as their cosponsorship behavior may differ from those of voting representatives. Sponsors of pieces of legislation are also removed from consideration related to that bill, as they are unable to simultaneously sponsor and cosponsor legislation; their inclusion would artificially lower their reported rate of cosponsorship. For each case study, bills are limited only to those sponsored by one of the roommates in question, in order to minimize unpredictable heterogeneity.⁸

Next, I merge into the dataset important control variables defined per bill, derived from the Congressional Bills Project (Adler and Wilkerson 2017). These include the number of cosponsorships each bill had, the name, party, and ideology of its sponsor (standardized across the dataset), as well as the sponsor’s majority or minority status. These also include a list of the committees to which the bill was referred, cut off by me at a maximum of six possible committees per bill to preserve the functionality of the data.⁹ As another proxy for sponsor productivity, I use the existing data to calculate how many “important” bills each sponsor had introduced per session, and duplicate it across that sponsor’s bills in a session as a new variable on each bill called *totalsponsorships*.

⁸ This poses a risk of a selection effect. A fifth regression, R5, was run in each sample in the equivalent analysis, and incorporated *all* bills, not just those sponsored by a roommate. Roommate status still had an effect on the dependent *cosponsor* variable in R5, and was in fact larger and more significant than in R1-R4. However, as my dataset does not include bill ideology, it is likely that the increased margin is due mostly to the inclusion of ideologically divergent bills. R5 results are available in the appendix.

⁹ This may nevertheless be a source of a very small amount of error.

Next, I match legislator-specific ICPSR identifiers to legislators' names using the public @unitedstates repository on GitHub (Mill, Tauberer, and Willis 2020) and the VoteView project by Keith Poole and Howard Rosenthal (Poole and Rosenthal 2015). Committee membership data comes from data compiled by Charles Stewart III at MIT (Nelson 2005; Stewart and Woon 2017), and is translated through a crosswalk provided by the Congressional Bills Project to match their identifiers. If the legislators' committee memberships correspond to any of the committees into which a bill was introduced, they are given the identifier *incommittee* = 1. Note that this indicator does not necessarily mean that the particular legislator was actually in the *same* committee as the sponsor (though there is a strong correlation). The rationale for this variable's inclusion is that a committee member's cosponsorship is more naturally sought after, both since committee members are more likely to be subject-matter experts and because their support is needed for the sponsor to get their bill reported out of committee (Koger 2003).

I incorporate more legislator characteristics as controls. Seniority, measured per Congress rather than per year, comes from Fowler's dataset for the 98th through 108th Congresses, and from the *Biographical Directory of the United States Congress* for the 109th Congress onward. Ideology data derives from VoteView (Lewis et al. 2021), and only the economic dimension of the NOMINATE score is used for the sake of simplicity. Finally, I add a proxy control to account for the legislator's individual general level of cosponsorship activity, *totalnumcosponsored*, by tallying how many cosponsorships on "important" bills they had within a session, and replicating that number across all of the legislator's entries within that session. It should be noted again that both this variable and the *totalbillcosponsors* variable pose a risk of circularity, as an entry of cosponsor = 1 will automatically increase the number of cosponsorships the person undertakes or the bill receives. However, cosponsorship happens at

such a large scale and the sample is so large that this risk is negligible in comparison to these metrics' benefits as proxies for a legislator's activity or a bill's popularity.

Finally, identifiers are assigned to a legislator per session (under a variable called *personsession*) for the purposes of clustering standard errors, given the other unobserved autocorrelations among the same individual's actions during a session.

Variable	R1	R2	R3	R4	Notes
<i>cosponsor</i>	Present	Present	Present	Present	Dependent variable. Per bill per session.
<i>roommate</i>	Present	Present	Present	Present	Per session. Isolated by case study.
<i>roommatesponsor</i>	--	--	--	--	Used to separately categorize bills for analysis. =1 if a roommate sponsored the bill. Isolated by case study.
<i>seniority</i>	Present	Present	Present	Present	Per session.
<i>nominate_dim1</i>	Present		Present		Per session. Most conservative = 1, most liberal = -1
<i>sameparty</i>		Present		Present	Isolated by case study.
<i>sponsorinmajority</i>	Present	Present	Present	Present	Per session.
<i>incommittee</i>	Present	Present	Present	Present	On at least one relevant committee in the session.
<i>incommitteeXroommate</i>	Present	Present	Present	Present	Interaction variable.
<i>totalnumcosponsored</i>			Present	Present	Per session. Small collinearity.
<i>totalbillcosponsors</i>			Present	Present	Per bill per session. Small collinearity.
<i>totalsponsorships</i>			Present	Present	Per session.
<i>personsession</i>	--	--	--	--	ID for clustering SEs on an individual legislator's activity within a session.

All regressions R1-R4 are probit in form, with errors clustered on *personsession*, and the probit results are used to calculate corresponding average marginal effects. R1 and R3 use the more fine-grained ideological score *nominate_dim1* while R2 and R4 use a simpler *sameparty* categorical variable in order to get a sense of the size of the effect same-party status has on cosponsorship. R1 and R3 should be relied on more directly for precise information about the other effects; only *sameparty* should ultimately be drawn only from R2 and R4 (c.f. Talbert and Potoski 2002). R3 and R4 are more sophisticated and incorporate more control variables about productivity, including the total number of bills a legislator has cosponsored in a session and the total number of sponsorships the bill's sponsor has undertaken within a session; they also use *totalbillcosponsors* as a proxy for an individual bill's popularity. Meanwhile, R1 and R2 only

control for ideological and situational factors, but they also do not bear any of the additional risks posed by the circularity, even though those risks appear to be negligible.

After the main body of regression analyses, I undertake a difference-in-difference-in-differences analysis to evaluate H2, the hypothesis related to causality. As a within-subjects quasi-experimental approach, it is an appropriate methodology to estimate causality in this situation. Other quasi-experiments are not feasible in this case: there are no eligible instrumental variables, for example, that could be used to approximate a causal finding. A valid difference-in-differences sample where legislators have records pre- and post-treatment only exists for the D Street group, however, where Durbin and Gejdenson served in Congress prior to joining the residence with Schumer and Miller.¹⁰ As such, it is also a weaker sample than one might like, especially because both were regular dinner guests prior to moving in (Kane 2015b; Gejdenson 2021), blurring the idea of a “treatment.” First, I adapt R3 to use both roommate-sponsored bills and non-roommate-sponsored bills; then, I use it to calculate difference-in-difference values between the treated group (Gejdenson and Durbin) and the untreated group (all other members of the House), run separately on samples of non-roommate-sponsored bills and those bills sponsored by the remaining two D Street roommates. Finally, I take the difference of those difference-in-differences. As stated in the hypotheses section, if Durbin and Gejdenson experience a significant increase in roommate-bill cosponsorship relative to non-roommate bills after controlling for all exogenous trends, then a directly quantifiable causal relationship between roommate status and roommate cosponsorship can be determined.

¹⁰ Durbin’s tenure began in the 98th Congress and Gejdenson’s began in the 97th Congress.

3.2 Results – D Street House, Periods 1 and 2

The D Street residence's data is split into two sections due to Durbin's and Schumer's accessions to the Senate in 1997 and 1999 respectively. Since inter-chamber collaboration cannot be tracked quantitatively through cosponsorship data, which is an intra-chamber metric, the first period being more representative since all roommates were in the House of Representatives. On top of that, since there are only two roommates tracked at a time in most of the second period, Period 2's results may be more variable and less representative, depending more directly on the rate of a roommate's bill sponsorship, for example, or direct interpersonal relationships between the two individuals rather than a more generalizable "roommate effect." Period 1 lasts from 1983, at the beginning of the 98th Congress, through 1997, at the end of the 104th Congress. Period 2 lasts from 1997, when the 105th Congress began and Durbin entered the Senate, until 2015, when the 113th Congress came to a close and the residence dissolved.

Summary Statistics

The summary statistics provide *prima facie* evidence that is already tentatively supportive of H1 (roommate correlation) and H3 (ideological and partisan influences). Table 1 counts instances of cosponsorship among all bill-action observations for roommate-sponsored bills in the period. The first section, "All," includes the whole chamber's actions on these bills, the second section isolates just Democrats' actions, and the third refines that further to just the actions of Democrats sitting on a relevant committee. Table 2 applies basic t-tests to the differences between the roommates and their non-roommate counterparts in those three groups. Compared to other Democrats in Period 1, the roommates were more likely to cosponsor a piece of legislation sponsored by a fellow member of the D Street residence by about two percentage

points, and the difference was statistically significant. However, they were also likely to be more senior than members of their party and more liberal than the average Democrat, hence the need for more thorough regression analysis to break apart the influences of different covariates. This difficulty becomes even more apparent with the narrowest grouping, where members are both on a relevant committee and in the same party. In Period 1, the difference between roommates and non-roommates in this group is insignificant, but that seems to be mostly due to insufficient observations.

Tables 3 and 4 are analogous to Tables 1 and 2 for Period 2. Interestingly, while the magnitude of the difference in cosponsorship activity is roughly the same at around two percentage points, the difference is no longer statistically significant, possibly due to fewer observations and an apparent increase in all cosponsorship activity on roommate bills during this period. The committee-member group results are also odd: the difference is actually significantly tilted toward non-roommates, either a very surprising finding or, more realistically, an issue with the small sample of only two roommates in the House in that period. These difficulties presage a number of issues that will continue to arise with the Period 2 observations.

Table 1: D Street House Summary Statistics: Period 1, 1983-1997

	(1) All			(2) Same Party			(3) Same Party, On Cmte.		
	N	cosponsor	mean	N	cosponsor	mean	N	cosponsor	mean
Non-Roommate	232115	8401	0.0362	135966	7198	0.0529	14802	1037	0.0701
Roommate	1886	137	0.0726	1886	137	0.0726	210	21	0.100
Total	234001	8538	0.0365	137852	7335	0.0532	15012	1058	0.0705

Actions by 844 legislators on 590 salient bills sponsored by a contemporary member of the D Street residence.

Table 2: D Street House Summary Statistics: Period 1, 1983-1997 – T-tests

	(1) Total		(2) Same Party		(3) Same Party, On Cmte.	
	Diff.	t-value	Diff.	t-value	Diff.	t-value
cosponsor	0.0364***	(6.084)	0.0197***	(3.279)	0.0299	(1.436)
incommittee	0.0047	(0.640)	0.0025	(0.340)		
seniority	1.3957***	(31.79)	0.8848***	(19.75)	1.2437***	(10.62)
nominate_dim1	-0.3170***	(-100.8)	-0.0383***	(-12.43)	-0.0098	(-0.997)
Observations	234001		137852		15012	

Actions by 844 legislators on 590 salient bills sponsored by a contemporary member of the D Street residence.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 3: D Street House Summary Statistics: Period 2, 1997-2015

	(1) All			(2) Same Party			(3) Same Party, On Cmte.		
	N	cosponsor	mean	N	cosponsor	mean	N	cosponsor	mean
Non-Roommate	126955	9571	0.0754	62658	9175	0.146	8353	2418	0.289
Roommate	328	54	0.165	328	54	0.165	49	8	0.163
Total	127283	9625	0.0756	62986	9229	0.147	8402	2426	0.289

Actions by 951 legislators on 293 salient bills sponsored by a contemporary member of the D Street residence.

Table 4: D Street House Summary Statistics: Period 2, 1997-2015 – T-tests

	(1) Total		(2) Same Party		(3) Same Party, On Cmte.	
	Diff.	t-value	Diff.	t-value	Diff.	t-value
cosponsor	0.0892***	(4.349)	0.0182	(0.886)	-0.1262**	(-2.356)
incommittee	0.0070	(0.356)	0.0161	(0.814)		
seniority	2.5164***	(15.65)	2.1109***	(13.08)	3.6025***	(8.759)
nominate_dim1	-0.5013***	(-142.8)	-0.0976***	(-29.18)	-0.0888***	(-10.24)
Observations	127283		62986		8402	

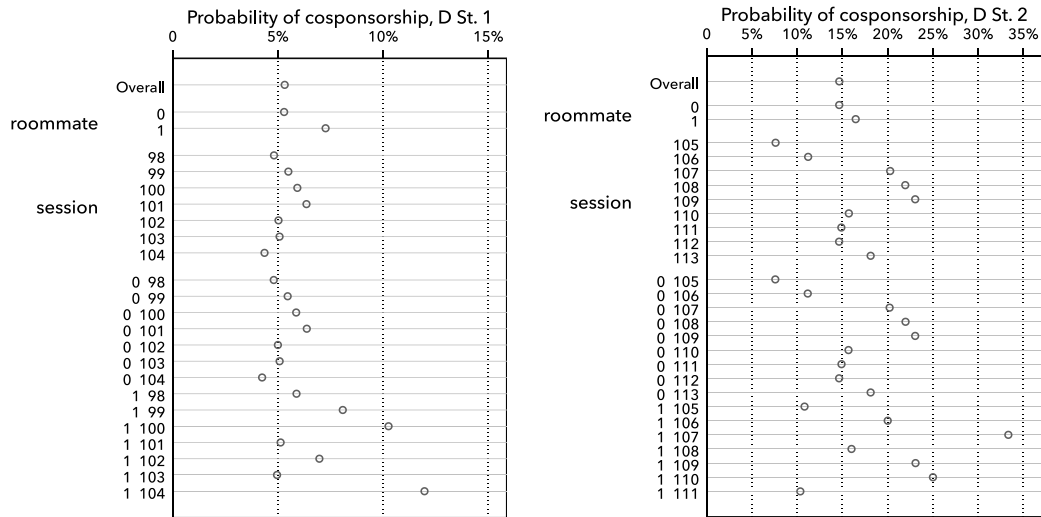
Actions by 951 legislators on 293 salient bills sponsored by a contemporary member of the D Street residence.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Figures 3 and 4 plot the mean of cosponsorship activity for roommates and non-roommates on roommate-sponsored bills across individual congressional sessions. First, there is

a significant degree of variation across different sessions. There is also a much wider amount of variance in the second period relative to the first, regardless of roommate status. In Period 1, there is a clear trend toward higher rates of cosponsorship by roommates, consistent with H1. In Period 2, that trend is much weaker if it even exists at all, undermining that support for H1.

Figures 3 and 4



Regressions 1 and 2

R1 and R2 in both periods align with secondary hypothesis H3 (ideological and partisan influences), do not support H6 (minority party status influence), and offer weak signals regarding primary hypothesis H1 (roommate correlation) and secondary hypothesis H5 (seniority influence). Examining the secondary hypotheses first, the regressions confirm that ideology has a very strong association with cosponsorship, as one might expect.¹¹ However, both regressions find that cosponsorship is more likely when the sponsor is in the majority rather than the

¹¹ The coefficient's value is negative because the liberal dimension of a NOMINATE score lies along the domain (-1, 0).

minority, a violation of the conditions assumed by H6. As for H5, Period 1 bears out the expected result of seniority having a small and negative incremental effect on cosponsorship activity; however, Period 2 does not produce a significant result. Additionally, both have particularly low pseudo R-squared values, indicating that the models are a relatively poor fit for the dataset. These disconfirmations are all challenges to external validity, indicating that the R1 and R2 results, especially the Period 2 results, may not be representative of real-world conditions.

The two divergent periods present a similar dilemma for the primary hypothesis H1 and the effect of the roommate = 1 condition. Period 1 features a significant ($p < 0.05$) marginal increase of about one percentage point on the likelihood of cosponsorship, but Period 2's effect is null. Even more oddly, the interaction term *incommitteeXroommate*, which is statistically significant in Period 2 but neither individually nor jointly significant in Period 1, bears a sharply negative effect to the tune of six percentage points. This is possibly a quirk resulting from the small number of datapoints available in period 2 after only two D Street residents remained in the House of Representatives. However, there is another potential explanation. Since *incommitteeXroommate* is an interaction term, its marginal effect should be summed with *incommittee* and *roommate*. Interestingly, *incommitteeXroommate* has the effect of essentially negating *incommittee*'s impact on net, suggesting that committee membership and roommate status are something akin to substitutes when it comes to producing collaboration, rather than complements. This phenomenon happens more robustly in R3 for the second period, and it happens again in the R3 done on the Shimkus group, albeit slightly more weakly. The implication is that there may be diminishing returns to the frequency with which legislators socialize with one another.

Table 5: D Street House Cosponsorships: Period 1, 1983-1997 (R1 and R2)

	(1) R1	(2) AME 1	(3) R2	(4) AME 2
roommate	0.133** (2.14)	0.00997** (2.15)	0.175** (2.45)	0.0135** (2.46)
seniority	-0.0203*** (-8.42)	-0.00153*** (-8.36)	-0.0151*** (-5.73)	-0.00116*** (-5.72)
nominate_dim1	-1.087*** (-37.71)	-0.0815*** (-29.71)		
sponsorinmajority	0.196*** (6.59)	0.0147*** (6.55)	0.173*** (5.54)	0.0133*** (5.50)
incommittee	0.165*** (8.45)	0.0124*** (8.41)	0.159*** (8.25)	0.0122*** (8.25)
incommitteeXroommate	0.0651 (0.48)	0.00488 (0.48)	0.0427 (0.31)	0.00327 (0.31)
sameparty			0.631*** (29.01)	0.0485*** (23.92)
Constant	-2.051*** (-68.50)		-2.333*** (-72.13)	
Observations	234001	234001	234001	234001

Sample of 590 bills and 844 legislators. R1 Pseudo $R^2 = 0.0728$ and R2 Pseudo $R^2 = 0.0470$. t statistics in parentheses. All covariates listed in table. Standard errors clustered on identifier *personsession*.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. AMEs derived from corresponding regression.

Table 6: D Street House Cosponsorships: Period 2, 1997-2015 (R1 and R2)

	(1) R1	(2) AME 1	(3) R2	(4) AME 2
roommate	0.00677 (0.06)	0.000781 (0.06)	0.149 (1.12)	0.0178 (1.12)
seniority	0.00159 (0.69)	0.000183 (0.69)	0.0135*** (5.81)	0.00162*** (5.80)
nominate_dim1	-1.989*** (-56.98)	-0.230*** (-46.60)		
sponsorinmajority	0.0831*** (4.25)	0.00959*** (4.31)	0.0302 (1.43)	0.00361 (1.44)
incommittee	0.538*** (21.15)	0.0621*** (20.47)	0.554*** (20.95)	0.0663*** (20.26)
incommitteeXroommate	-0.560** (-2.34)	-0.0646** (-2.34)	-0.579** (-2.51)	-0.0693** (-2.51)
sameparty			1.480*** (44.91)	0.177*** (40.27)
Constant	-1.952*** (-100.53)		-2.715*** (-78.46)	
Observations	127208	127208	127208	127208

Sample of 293 bills and 951 legislators. R1 Pseudo $R^2 = 0.2097$ and R2 Pseudo $R^2 = 0.1805$. t statistics in parentheses. All covariates listed in table. Standard errors clustered on identifier *personsession*.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. AMEs derived from corresponding regression.

Regressions 3 and 4

With the addition of extra controls for a legislator's productivity and a bill's popularity, the effects of roommate status on cosponsorship of roommates' bills became more pronounced, indicating more robust support for H1 (roommate correlation). Importantly, this time, H6 (minority party status influence) is supported in addition to H3 (ideological and partisan influences) and H5 (seniority influence), with majority status being associated negatively with cosponsorship rather than positively. H4 (productivity influence) is also not violated, though support is weaker. The pseudo R-squared values are also much higher than in regressions R1 and

R2. Together, these suggest that the new controls, while they posed small circularity risks, may make R3 and R4 more faithful to reality than R1 and R2.

The effects associated with the productivity and popularity controls are intriguing;¹² as one might expect, there appears to be a bandwagoning effect for popular bills (c.f. R. K. Wilson and Young 1997), but the more prolific a bill sponsor is, the less likely a legislator is to cosponsor any of that sponsor's bills. This is not necessarily disqualifying of H4, since the negative effect is small and the other effects are positive as expected; there may be a degree of collinearity between the three measures, as well. Alternatively, greater numbers of sponsorships can also reflect failed initiatives, as legislators will occasionally reintroduce their legislation as a new bill in the same session if they feel they need to revitalize interest in the subject matter.

Support for primary hypothesis H1 is stronger here as well after the addition of these further controls. The coefficient of roommate status increased its average marginal effect by about half a percentage point, and it became weakly significant ($p < 0.1$) in Period 2, rather than insignificant. Nevertheless, Period 2 remains relatively spurious compared to Period 1, and its results should be interpreted cautiously, including the weak finding about the interaction between *incommittee* and *roommate* as discussed above. For example, the average marginal effect of *sameparty* in R4 is shockingly high, at 15 percentage points. This is a substantial outlier. While one might hypothesize that this is a result of polarization, the same effect is not found among the Republicans in the Shimkus house, which should have experienced polarization more strongly (Grossmann and Hopkins 2016). Again, Period 2 should be treated with caution for these reasons.

¹² (Keep in mind that the average marginal effects are at a different scale because these are continuous variables.)

Table 7: D Street House Cosponsorships: Period 1, 1983-1997 (R3 and R4)

	(1) R3	(2) AME 3	(3) R4	(4) AME 4
roommate	0.300*** (4.35)	0.0173*** (4.35)	0.347*** (4.55)	0.0202*** (4.56)
totalnumcosponsored	4.16e-6*** (13.47)	2.39e-7*** (13.27)	4.79e-6*** (14.61)	2.80e-7*** (14.35)
totalbillcosponsors	0.0175*** (92.71)	0.00101*** (65.01)	0.0172*** (94.25)	0.00100*** (60.51)
totalsponsorships	-0.00408*** (-6.87)	-0.000235*** (-6.94)	-0.00418*** (-6.97)	-0.000244*** (-7.02)
seniority	-0.0149*** (-5.49)	-0.000856*** (-5.51)	-0.00916*** (-3.14)	-0.000534*** (-3.15)
nominate_dim1	-1.047*** (-34.00)	-0.0603*** (-31.12)		
sponsorinmajority	-0.184*** (-6.19)	-0.0106*** (-6.16)	-0.217*** (-6.98)	-0.0126*** (-6.93)
incommittee	0.173*** (8.20)	0.00998*** (8.15)	0.168*** (8.04)	0.00978*** (8.02)
incommitteeXroommate	0.153 (1.13)	0.00878 (1.13)	0.138 (1.04)	0.00804 (1.04)
sameparty			0.642*** (27.42)	0.0374*** (25.71)
Constant	-2.367*** (-69.94)		-2.675*** (-72.19)	
Observations	234001	234001	234001	234001

Sample of 590 bills and 844 legislators. R3 Pseudo $R^2 = 0.2892$ and R4 Pseudo $R^2 = 0.2758$. t statistics in parentheses. All covariates listed in table. Standard errors clustered on identifier *personsession*.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. AMEs derived from corresponding regression.

Table 8: D Street House Cosponsorships: Period 2, 1997-2015 (R3 and R4)

	(1) R3	(2) AME 3	(3) R4	(4) AME 4
roommate	0.174* (1.85)	0.0139* (1.85)	0.341*** (3.45)	0.0280*** (3.46)
totalnumcosponsored	2.96e ⁻⁶ *** (13.96)	2.37e ⁻⁷ *** (14.02)	4.27e ⁻⁶ *** (15.47)	3.51e ⁻⁷ *** (15.67)
totalbillcosponsors	0.0153*** (74.73)	0.00123*** (88.91)	0.0147*** (72.00)	0.00121*** (81.65)
totalsponsorships	-0.00917*** (-6.80)	-0.000732*** (-6.88)	-0.00839*** (-6.43)	-0.000689*** (-6.47)
seniority	-0.00242 (-0.94)	-0.000193 (-0.94)	0.0103*** (4.06)	0.000847*** (4.06)
nominate_dim1	-2.491*** (-41.53)	-0.199*** (-45.78)		
sponsorinmajority	-0.210*** (-6.55)	-0.0167*** (-6.55)	-0.295*** (-8.94)	-0.0242*** (-8.89)
incommittee	0.635*** (21.47)	0.0507*** (20.59)	0.621*** (20.93)	0.0511*** (20.39)
incommitteeXroommate	-0.641** (-2.48)	-0.0512** (-2.48)	-0.621*** (-2.65)	-0.0510*** (-2.65)
sameparty			1.856*** (31.02)	0.153*** (35.86)
Constant	-2.859*** (-61.79)		-3.875*** (-52.29)	
Observations	127208	127208	127208	127208

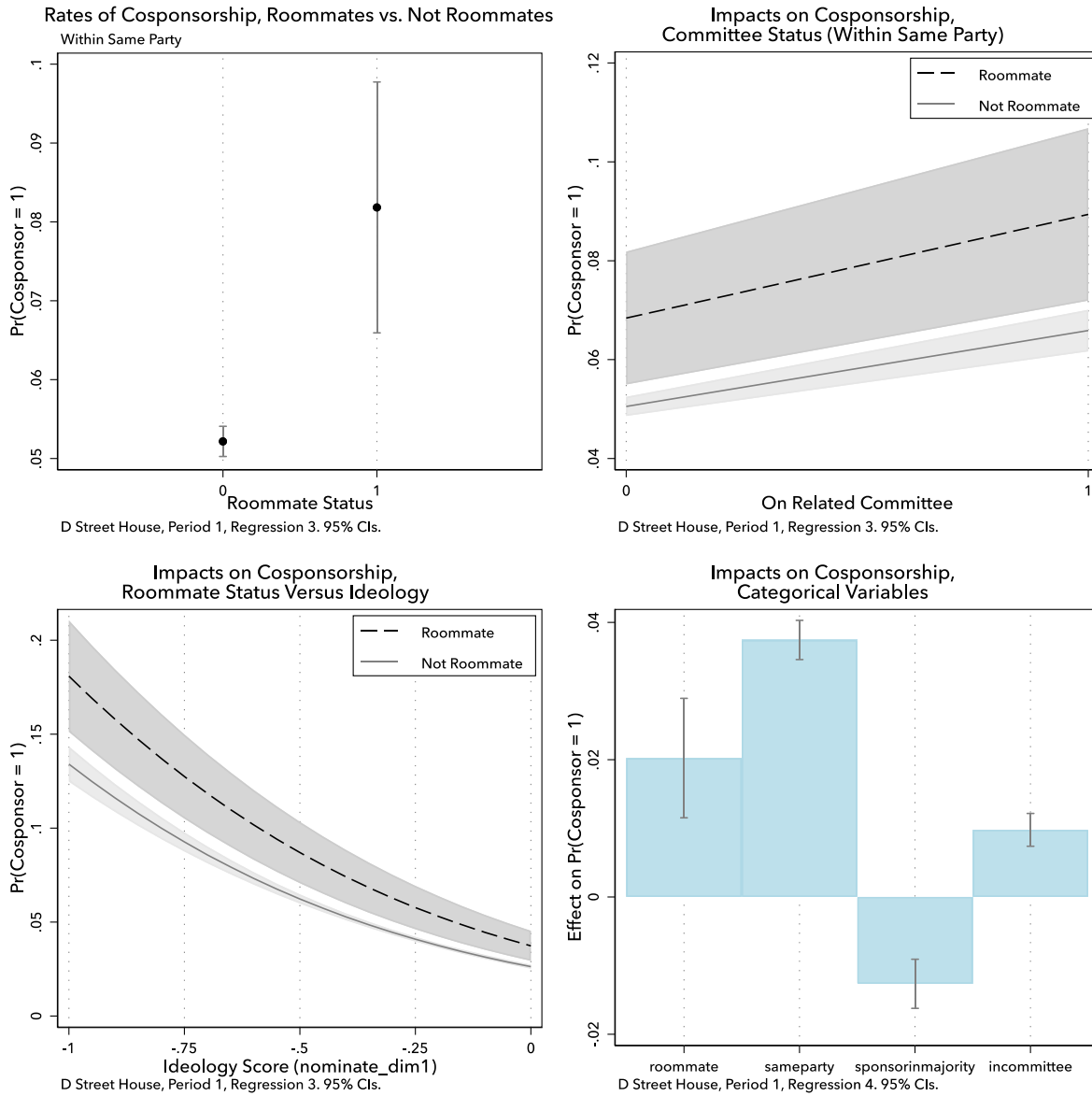
Sample of 293 bills and 951 legislators. R3 Pseudo R² = 0.4601 and R4 Pseudo R² = 0.4419. *t* statistics in parentheses. All covariates listed in table. Standard errors clustered on identifier *personsession*.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. AMEs derived from corresponding regression.

The marginal effects derived from the regression results of R3 and R4 in Period 1 are more easily visualized in the following figures. Figure 5 holistically depicts the average differences in cosponsorship rates between roommates and non-roommates on a scatter plot. The sample is limited to those within the same party, with all other marginal effects (ideology, seniority, productivity, bill popularity, committee membership, etc.) held at their averages within that subpopulation; the relatively wide difference in cosponsorship between the two groups is readily visible, even though the image is something of an oversimplification if we assume there are

correlations between ideology and roommate status, for example. Figure 6 represents the increase in probability of cosponsorship associated with being on a relevant committee, split between roommates and non-roommates within the same party. Again, all other marginal effects are held at their averages, making this another simplified image; the important takeaway from this graph is that roommates appear to experience increased cosponsorship irrespective of committee membership. Figure 7 is a particularly useful graph as it tracks the marginal effect of ideology on cosponsorship, simultaneously demonstrating support for H1 (roommate status) and H3 (ideological influences). The D Street group was largely a center-left household (Delahunt 2021; Gejdenson 2021; Marsh 2002), with an average ideological score of approximately -0.360 in the first period (-0.376 over both periods). Rates of cosponsorship increase exponentially, though, as the ideological score approaches -1, so the effect of extremism appears to dominate that of proximity. There are a number of proposed explanations for this, including generally greater legislative activism by more radical members of Congress, for example (Bratton and Rouse 2011; D. Kessler and Krehbiel 1996; R. K. Wilson and Young 1997). Nevertheless, the important finding is that roommate status produces a consistent marginal increase on the rate of cosponsorship, regardless of ideological difference. In fact, that margin appears to increase at the ideological extremity, though that is only an extrapolation using the relatively limited sample of roommates. (As usual, other marginal effects like seniority and committee membership are held at their averages.) Finally, Figure 8 illustrates the magnitudes of the effects of different categorical variables from R4, for the sake of visually comparing the effects of roommate status and committee membership with the average effect of co-partisanship. Continuous variables like those that involve productivity and bill popularity are held at averages. The relative magnitude of the effect associated with roommate status is particularly impressive here.

Figures 5 – 8



Analogous graphs are available for Period 2; they are similar in form but lack statistical significance and are generally more difficult to interpret, so they are not reproduced here in order to save space. Comprehensive sets of all graphs and tables can be found in the appendix.

3.3 Results – The Shimkus House

Analysis of this Republican group is easier as all members only served in the House, and therefore only requires analysis within a single period: the beginning of the 108th Congress in 2003 through the end of the 114th Congress in 2017, when data from this crawl is no longer available. Given the anomalies presented by the Trump presidency, perhaps that is for the best, so that this case study can be more neatly compared to the group of Democrats. Later researchers may wish to determine whether these effects will be consistent across the Trump and Biden presidencies.

Summary Statistics

As was the case in the D Street group's more robust first period, the summary statistics in Tables 9 and 10 indicate that the Shimkus roommates were more likely to cosponsor legislation sponsored by one of their own co-residents than the average member of their party, tentatively providing further support for H1. In this case, that difference was about two and a half percentage points, slightly higher than was the case in D Street, albeit slightly less significant as well. Just as in D Street's second period, this may be due to the smaller sample size: just 284 salient bills were sponsored by their group from 2003-2017. This is despite the residents' being more senior than the average Republican. However, the Shimkus roommates were also more conservative than the average Republican and more likely to serve on committees relevant to the bills being introduced. The latter is not necessarily surprising, as the sample consists of the roommates' own bills, which would generally be tailored to the committees the roommates served on—but this difference was not significant in either D Street sample. Additionally, the qualitative investigation found a greater degree of committee collaboration happening in this

household between, for example, Brady and Paulsen on Ways and Means or Shimkus and Scalise on Energy and Commerce. Either way, both are rival explanations for increased cosponsorship behavior on these selected bills, hence the need for deeper regression analysis.

Table 9: Shimkus House Summary Statistics: 2003-2017

	(1) All			(2) Same Party			(3) Same Party, On Cmte.		
	N	cosponsor	mean	N	cosponsor	mean	N	cosponsor	mean
Non-Roommate	121612	7465	0.0614	62927	5378	0.0855	8730	1073	0.123
Roommate	859	95	0.111	859	95	0.111	258	32	0.124
Total	122471	7560	0.0617	63786	5473	0.0858	8988	1105	0.123

Actions by 869 legislators on 284 salient bills sponsored by a contemporary member of the Shimkus residence.

Table 10: Shimkus House Summary Statistics: 2003-2017 – T-tests

	(1) Total		(2) Same Party		(3) Same Party, On Cmte.	
	Diff.	t-value	Diff.	t-value	Diff.	t-value
cosponsor	0.0492***	(4.587)	0.0251**	(2.334)	0.0011	(0.0538)
incommittee	0.1661***	(10.59)	0.1616***	(10.29)		
seniority	0.1618	(1.263)	0.7668***	(5.972)	0.9839***	(4.151)
nominate_dim1	0.4180***	(126.6)	0.0113***	(3.637)	0.0300***	(5.587)
Observations	122471		63786		8988	

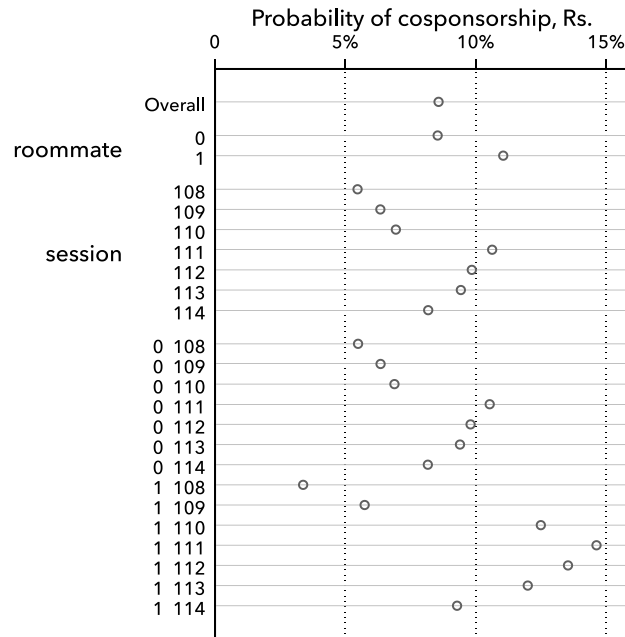
Actions by 869 legislators on 284 salient bills sponsored by a contemporary member of the Shimkus residence.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Figure 9 also plots the mean cosponsorship rates per congressional session, again split between roommates and non-roommates and limited only to members of the roommates' party, i.e. Republicans. Its results are an interesting blend of the findings that characterized D Street's first and second periods. Its variance is only slightly greater than that of the D Street's first period, but its loose pattern resembles that of D Street's second period.

The leap in cosponsorship activity starting in the 111th Congress is particularly notable with respect to H6's prediction that minority party status increases cosponsorship activity; given the large jump that coincides with the rise of a Democratic trifecta in the 2009-2011 session, that hypothesis seems robustly supported—at least, at a *prima facie* level. If H6 is not supported in the regressions, then, they should be treated with some additional caution.

Figure 9



Regressions 1 and 2

The results of R1 and R2 in the Shimkus sample are similar to the results of the D Street group, but they are generally more significant and stronger. Roommate status, in support of H1, is associated with a 2.3-percentage point increase in the likelihood of cosponsorship, a one-percentage point increase from R1’s result in D Street’s first period. Once again, ideology has a strong effect in accordance with H3. Seniority has the consistent negative effect predicted by H5. H6 (minority party status influence) is again undermined by an apparent positive association with the *sponsorinmajority* variable, though. This is an external validity risk, especially considering the minority-party pattern that appears in Figure 9. The danger is also highlighted by the relatively weak pseudo R-squared values, as was the case in the prior iterations of R1 and R2.

Table 11: Shimkus House Cosponsorships: 2003-2017 (R1 and R2)

	(1) R1	(2) AME 1	(3) R2	(4) AME 2
roommate	0.192*** (2.97)	0.0231*** (2.97)	0.186*** (2.96)	0.0223*** (2.97)
seniority	-0.00606*** (-2.97)	-0.000726*** (-2.98)	-0.00894*** (-4.39)	-0.00107*** (-4.42)
nominate_dim1	0.521*** (28.63)	0.0624*** (27.81)		
sponsorinmajority	0.0342** (2.17)	0.00410** (2.18)	0.0291* (1.85)	0.00350* (1.86)
incommittee	0.249*** (10.89)	0.0298*** (10.62)	0.242*** (10.65)	0.0290*** (10.40)
incommitteeXroommate	-0.206 (-1.12)	-0.0246 (-1.12)	-0.193 (-1.08)	-0.0232 (-1.08)
sameparty			0.457*** (27.52)	0.0548*** (27.25)
Constant	-1.632*** (-99.08)		-1.817*** (-92.65)	
Observations	110753	110753	110753	110753

Sample of 284 bills and 869 legislators. R1 Pseudo R² = 0.0338 and R2 Pseudo R² = 0.0331. *t* statistics in parentheses. All covariates listed in table. Standard errors clustered on identifier *personsession*.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. AMEs derived from corresponding regression.

Regressions 3 and 4

R3 and R4 echo R1 and R2, with roommate status once again bearing a slightly higher increase in cosponsorship rates on roommate-sponsored bills now that the productivity and popularity controls are included, again in support of H1 (roommate status correlation). Specifically, roommate status is associated with a 2.5-percentage-point increase in the likelihood of cosponsorship, a 0.8-percentage point increase over the magnitude of the effect in the D Street group. It is equivalent in magnitude to approximately 40% of the effect associated with *sameparty*—again, this is surprisingly large. As in D Street’s second period, the interaction term *incommitteeXroommate* has become weakly significant and negative in R3. Perhaps this should

be read as a more realistic manifestation of that result: a slight dilution of both of the strong effects from *roommate* and *incommittee* is intuitive, per the analysis in the D Street section.

The effects associated with the added control variables provide a qualified affirmation of H4 (productivity influence), consistent with their effect in the D Street sample: the level of cosponsorship activity is positive and statistically significant but small, and the bill's popularity corresponds with a positive bandwagoning effect. However, a sponsor's total sponsorships are still negatively associated with the chance of cosponsoring one of their bills, which remains a peculiar finding. As usual, though, ideology is the strongest factor, supportive of H3.¹³ With the added controls, the *sponsorinmajority* variable changed substantially, and it now bears the negative effect posited by H6 (minority party status influence). Once more, the improved compatibility with the secondary hypotheses is evidence that R3 and R4 are a higher-fidelity model than R1 and R2; this is supported by the pseudo R-squared values as well, which are again much greater in R3 and R4, indicating that they fit the data significantly better than do R1 and R2.

¹³ The coefficient's value is now positive because the conservative dimension of a NOMINATE score lies along the domain (0, 1).

Table 12: Shimkus House Cosponsorships: 2003-2017 (R3 and R4)

	(1) R3	(2) AME 3	(3) R4	(4) AME 4
roommate	0.292*** (3.80)	0.0254*** (3.80)	0.280*** (3.77)	0.0244*** (3.78)
totalnumcosponsored	2.89e-6*** (14.13)	2.51e-7*** (14.02)	2.54e-6*** (12.26)	2.21e-7*** (12.22)
totalbillcosponsors	0.0113*** (87.54)	0.000983*** (72.71)	0.0113*** (86.95)	0.000983*** (72.16)
totalsponsorships	-0.00544*** (-4.12)	-0.000472*** (-4.14)	-0.00537*** (-4.10)	-0.000468*** (-4.11)
seniority	-0.00716*** (-3.13)	-0.000621*** (-3.14)	-0.0115*** (-4.94)	-0.00100*** (-4.95)
nominate_dim1	0.808*** (30.78)	0.0701*** (29.84)		
sponsorinmajority	-0.0465** (-2.41)	-0.00404** (-2.40)	-0.0549*** (-2.84)	-0.00478*** (-2.83)
incommittee	0.413*** (17.22)	0.0358*** (16.59)	0.401*** (16.88)	0.0349*** (16.30)
incommitteeXroommate	-0.324* (-1.69)	-0.0281* (-1.69)	-0.308 (-1.64)	-0.0268 (-1.64)
sameparty			0.686*** (27.10)	0.0597*** (27.32)
Constant	-2.272*** (-75.22)		-2.525*** (-70.49)	
Observations	110753	110753	110753	110753

Sample of 284 bills and 869 legislators. R3 Pseudo $R^2 = 0.2909$ and R4 Pseudo $R^2 = 0.2881$. t statistics in parentheses. All covariates listed in table. Standard errors clustered on identifier *personsession*.

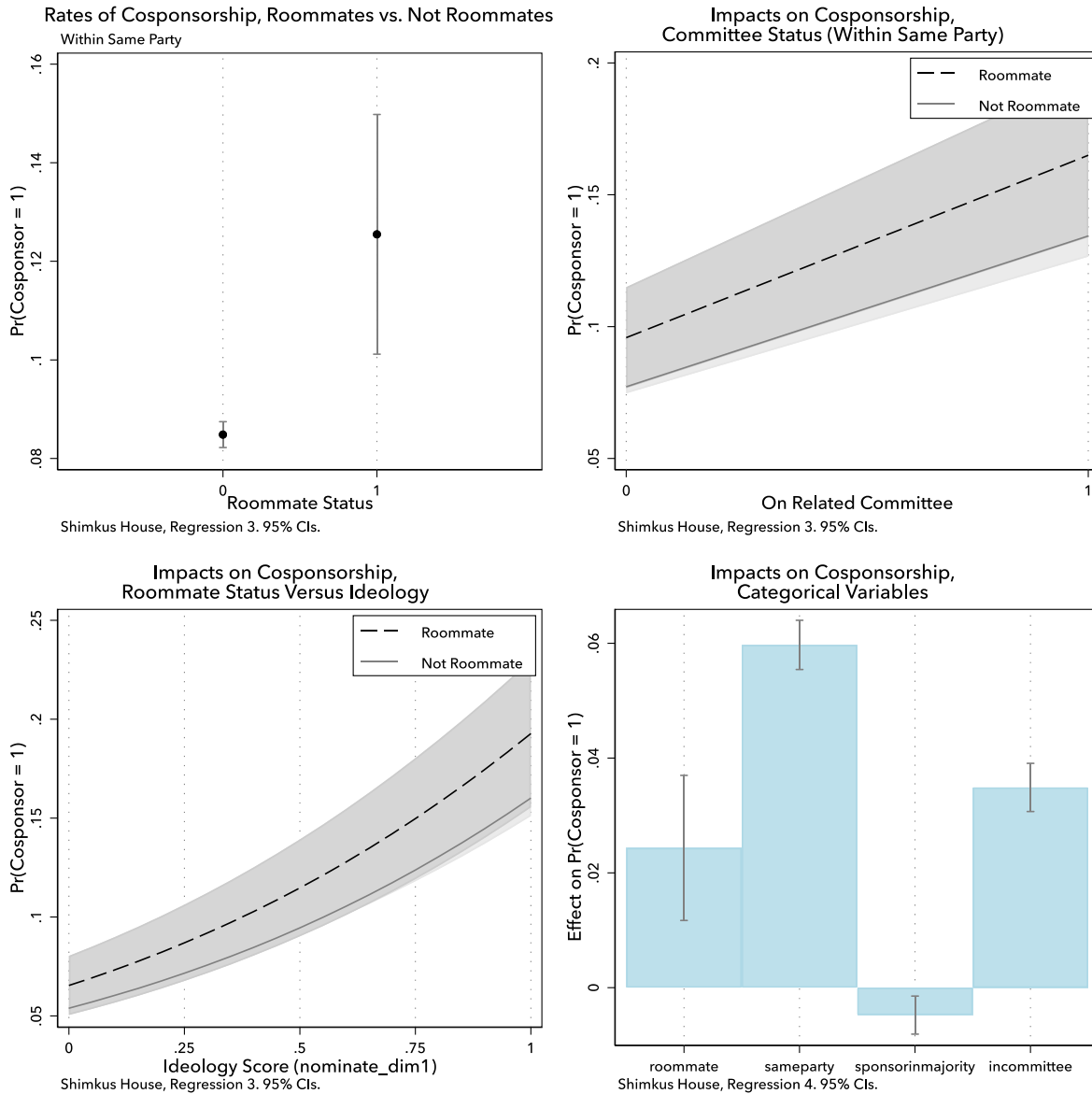
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. AMEs derived from corresponding regression.

The marginal effects can be visualized with the following charts, analogous to those presented in the D Street section. Similarly, the trends are consistent with those in the graphs from D Street's first period. Figure 10 plots the different cumulative rates of cosponsorship for roommates and non-roommate co-partisans, with other variables held at their average marginal effects. As before, this difference is statistically significant. Figure 11 traces the effect of roommate status alongside committee membership (all other marginal effects at average), and Figure 12 compares the effect of roommate status alongside the average rates associated with

ideology scores. The pattern is the reverse of the D Street graph because this is the opposite end of the ideological spectrum; however, the rate of cosponsorship among co-partisans is also greater across the board here, by about a percentage point. The mean ideological score of the group is 0.468, somewhat more extreme than the D Street group, but also with less variance. The different effects of ideological proximity and ideological extremism (with extremism apparently dominating) are visible again, as well. Nevertheless, for both of these figures, the significance is weaker in this instance than in the analogous graphs from D Street's first period. The distances between the means are similar, and I would tentatively posit that the weak significance is primarily a result of a smaller sample size. Nevertheless, Figures 11 and 12 are therefore not the same robust support for H1 (roommate status correlation) that Figures 6 and 7 were, though Figure 11 still aligns with H3 (ideological influences).

Meanwhile, Figure 13 depicts an array of statistically significant categorical variables that support H1, H3, and H6 (minority status influence). Note also that the *sameparty* effect as well as the *incommittee* effect are both significantly greater than they were in the D Street sample, which is intriguing. However, there may be collinearity between *sponsorinmajority* and *sameparty* across both case studies, and this might account for some of these disparities. Importantly, in both samples, there is no statistically significant difference between the magnitudes of the effects of *incommittee* and *roommate*.

Figures 10 – 13



3.4 Results – Difference-in-Difference-in-Differences

The question of causality, represented by H2, remains unresolved thus far in the analysis, as it has focused on correlational relationships thus far. The difference-in-difference-in-differences (DDD) quasi-experimental investigation can therefore hopefully provide an answer to that question should a statistically significant result be obtained. There are three possible

outcomes: if, after controlling for exogenous trends, the differences in cosponsorship behavior between roommate and non-roommate sponsors significantly increase when legislators join the shared residence, then we can conclude that roommate status is likely the cause of increased collaboration between the roommates. If that marginal increase is positive but substantially smaller than the typical correlation associated with roommate status in the above regressions, then there is likely a causal relation that is being diluted by self-selection or other unexplained variables. Finally, if there is no significant change in behavior after the “treatment” (joining the household), a causal relation cannot be attributed quantitatively, prompting greater reliance on the qualitative insights from Chapter 2 instead.

In this case, the quasi-experiment is as follows: Representatives Sam Gejdenson and Dick Durbin had careers in the House both prior to joining the D Street residence (pre-treatment) and during their time in the D Street residence (post-treatment). They are the only two legislators from either sample for whom this is true; all others entered their shared residence relatively soon after joining Congress. The goal is to test for a change in the disparity between their cosponsorship behavior toward roommates and non-roommates after they joined the residence; ostensibly, an expected result would be an increased divergence between the two groups, indicating a greater preference for their new roommates. To measure this, their post-treatment rate of cosponsorship is first subtracted from their pre-treatment rate of cosponsorship, after controlling for general trends across the time period. This is done separately for non-roommate-sponsored bills (within their own party) and roommate-sponsored bills. Then, those treatment effects (the difference-in-difference results) are subtracted from one another to determine whether they are of significantly different magnitudes. If there is a larger post-treatment increase in roommate-based cosponsorship than non-roommate-based cosponsorship, then we can fairly

say that the treatment was biased toward roommates and attribute causality that way. Other results would produce different conclusions, of course, but lastly it is important to note that an insignificant result does not necessarily prove that there is no causality relation; while that is possible, it may also mean that the quantitative analysis is insufficiently equipped to answer the question. This is particularly likely to be the case in this scenario, because the sample of Gejdenson and Durbin is simultaneously small and biased: both regularly had dinner with the D Street group, as they were all part of a small social group of tight-knit center-left legislators that also included Reps. Nancy Pelosi and Anna Eshoo (Gejdenson 2021; G. Kessler 2019). That strong social tie and regular informal interaction may be a strong substitute for a roommate relationship, perhaps dampening the relative effect of actually joining the household

First, Figures 14 – 16 are simple linear graphs that depict the average cosponsorship behavior of the treated group (Gejdenson and Durbin) and all other Democrats over time. Durbin and Gejdenson both entered the D Street house at the turn of the 103rd Congress. Durbin exits the dataset after the 104th Congress upon becoming a senator. Meanwhile, Gejdenson’s last term in the House was the 106th Congress. The post-treatment period, therefore, is less extensive than one might have hoped. Figure 14 depicts cosponsorship behavior as it relates to roommate-sponsored bills, Figure 15 does so with bills that are not sponsored by roommates, and Figure 16 presents both of those sets in one graph for easier comparison. The weakness of this treatment group is readily apparent from the high degree of variance and general inconsistency across the graphs, and no clear divergence from the non-roommate trend is immediately visible. In fact, it seems that Gejdenson and Durbin were already predisposed to working with the roommate group. This is later confirmed in the difference-in-difference-in-differences calculations.

Figures 14 – 16

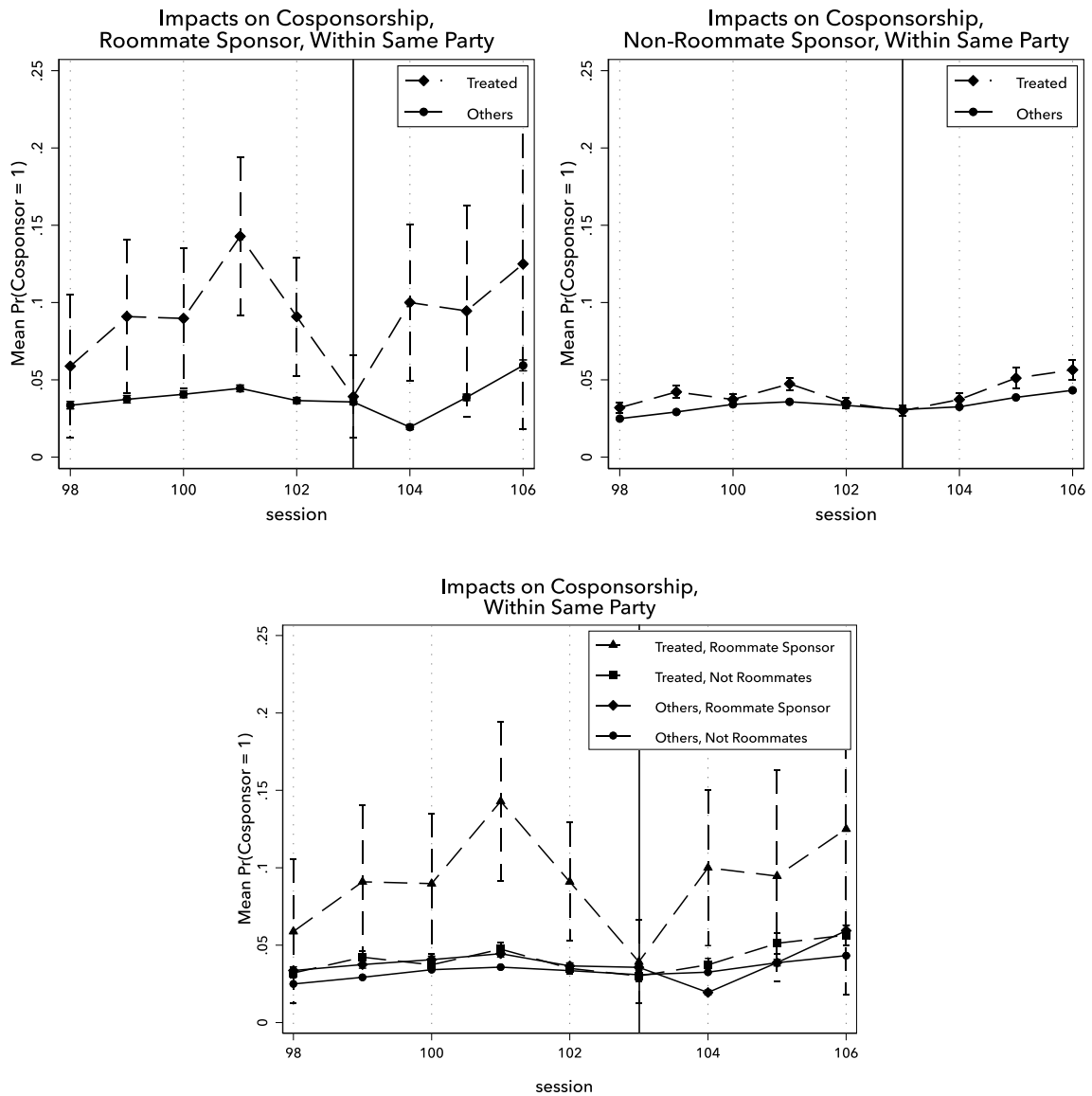


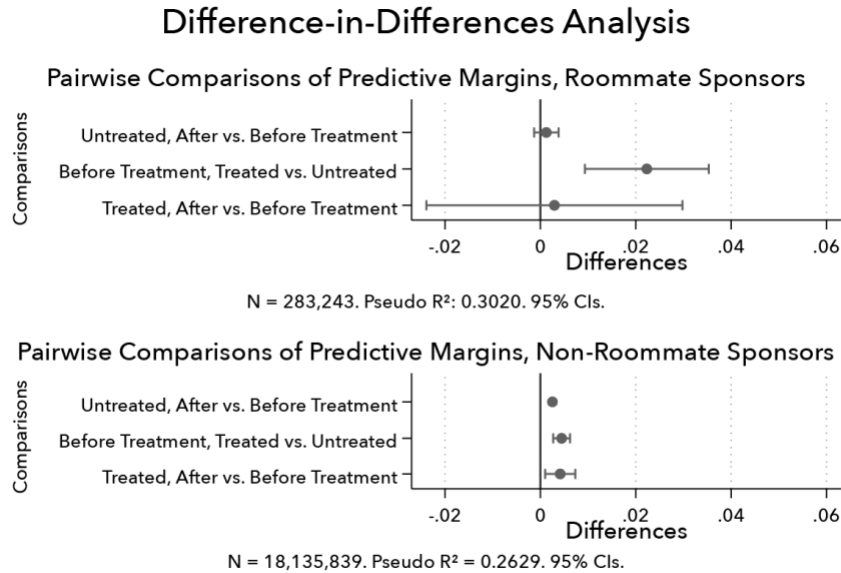
Figure 17 plots the results of the empirical difference-in-difference-in-differences analysis. I run an adaptation of R3 on the larger dataset of roommate-sponsored and non-roommate-sponsored bills alike to determine the differences in cosponsorship behavior between treated and untreated legislators before and after the treatment (moving into the residence), using all of the same covariates as controls (seniority, ideology, bill popularity, legislator productivity,

etc.).¹⁴ For the most part, it seems that there was very little change in cosponsorship behavior across time after implementing those controls. The difference-in-difference is calculated by subtracting the first from the third measure in each chart (i.e. treated difference minus untreated difference); as you can see, in both sets, the mean difference is already practically nil and the difference between those differences is statistically insignificant. In turn, the difference-in-difference-in-differences is therefore also nil and insignificant.

I include the second measure in the chart, the before-treatment difference, to explore whether the treated legislators were already biased toward the roommates in the first place, perhaps because of their pre-existing social ties. Sure enough, there is a statistically significant difference between those contrasts in the roommate-sponsor sample and the non-roommate-sponsor sample, indicating that Durbin and Gejdenson had a pre-treatment preference for the D Street roommates already. The direct cause of that preference is uncertain—it could be based in policy interests, personality traits, or social ties—but it suggests that this sample may not experience a sharply-defined “treatment,” making Durbin and Gejdenson a potentially flawed treatment group.

¹⁴ I divide *personsession* clusters by sponsor, creating a *personsessionsponsor* identifier to better account for possible autocorrelation between sponsor-legislator pairings, as this dataset features a much greater variety of bill sponsors.

Figure 17



Data extends from the 98th through the 106th Congresses. "Treated" = Durbin and Gejdenson. "Treatment" = moving into the D Street house.

Table 13 reflects the regression postestimation outputs when these pairwise comparisons are conducted altogether in one regression (hence the slightly lower standard errors). Again, this is an adapted R3, with covariates listed below. As above, only the initial pre- and post-treatment differences are significant; the difference-in-differences and the difference-in-difference-in-differences are all insignificant. In fact, the ultimate mean difference-in-difference-in-difference is only equivalent to 0.03 percentage points.

Table 13: Difference in Differences: Pairwise comparisons

	Contrast	Std. Err.
Non-Rmt. Spn. – Untreated, After vs. Before	0.00255	0.00035
Non-Rmt. Spn. – Treated, After vs. Before	0.0041	0.00162
Rmt. Spn. – Untreated, After vs. Before	0.00310	0.00044
Rmt. Spn. – Treated, After vs. Before	0.00496	0.00196
Non-Roommate Sponsor: Diff-in-Diff	0.00155	[Insignificant]
Roommate Sponsor: Diff-in-Diff	0.00186	[Insignificant]
Diff-in-Diff-in-Diff	0.00031	[Insignificant]

Data spans 704 roommate-sponsored bills, 44,858 non-roommate-sponsored bills, and 924 legislators. Covariates: *totalnumcosponsored*, *totalbillcosponsors*, *totalsponsorships*, *seniority*, *nominate_dim1*, *sponsorinmajority*, and *incommittee*. Standard errors clustered on identifier *personsessionsponsor*. Delta-method standard errors. Factor variable frequency evaluated as balanced. Pseudo R² = 0.2626.

3.5 Conclusions

Ultimately, the results of the main regressions in both case studies offer substantial support to primary hypothesis H1, that roommate status is associated with greater cosponsorship. This is especially true of the most comprehensive regression, R3, the results of which tend to align with H3, H4, H5, and H6 across both the Shimkus group and the D Street group, favorably suggesting that those findings are externally valid. The other regressions all had more weaknesses: R1 and R2, for example, could not account for bandwagoning and productivity, and repeatedly failed to satisfy important secondary hypotheses like H5 and H6.

According to the regression analysis, a roommate tie is associated with approximately a two-percentage point increase in the average rate of cosponsorship. Depending on the sample, this effect’s magnitude is equal to about 40 to 54 percent of the magnitude of the effect of co-partisanship, for example, or approximately equal to the magnitude of the effect associate with being on a committee into which the bill is introduced. In fact, a roommate tie alone can apparently increase the average rate of cosponsorship on bills by 20 to 25 percent.

Hypothesis	D Street 1?	D Street 2?	Shimkus House?	Conclusion
<i>H1: Roommate ties are correlated with greater rates of cosponsorship</i>	Yes (1.73pp)	Yes (1.39pp)	Yes (2.54pp)	Correlation is present and strong, especially relative to other more traditionally important factors like co-partisanship.
<i>H2: Roommate ties cause greater rates of cosponsorship</i>	Unknown	Unknown	Unknown	No quantitative causality determination was reachable, although the sample was not ideal.
<i>H3: Ideology and partisanship strongly affect cosponsorship</i>	Yes	Yes, but some oddities	Yes	Confirms preference for D Street 1 and Shimkus House over D Street 2 for external validity.
<i>H4: Legislators with higher productivity will have greater rates of cosponsorship</i>	Yes, but weak	Yes, but weak	Yes, but weak	Approximately equal indicator of external validity across all three samples. Determined that R3 and R4 were more accurate than R1 and R2 for all samples.
<i>H5: Seniority is negatively associated with cosponsorship</i>	Yes	Insignificant	Yes	Confirms preference for D Street 1 and Shimkus House over D Street 2 for external validity.
<i>H6: Minority party status is associated with greater cosponsorship</i>	Yes	Yes	Yes	Approximately equal indicator of external validity across all three samples. Helped to determine that R3 and R4 were more accurate than R1 and R2 for all samples.
Sample reliability	Good	Poor	Good	Accurately representative data should be drawn from D Street 1 and Shimkus House, not D Street 2.

Such a robust possible effect is exciting, but it must be regarded cautiously given the insufficient information to make a determination regarding causality, as referenced in H2. The difference-in-difference-in-differences analysis did not find a significant change in the two legislators' behavior after Gejdenson and Durbin moved into the D Street home, but the calculation was also hobbled by a poor sample. Reverse causality was laid out as a possible problem in Chapter 1; ultimately, this analysis has been unable to assess any direction of causality whatsoever—including, for example, bidirectional causality and possible third-variable causation. That determination will have to be informed qualitative evidence, instead, and as such the question of causation will be discussed holistically in the following chapter.

4 Conclusions and Implications

You're more apt to want to help each other: to give advice, to offer insight... I mean, when I look back after being in Congress for ten years, I would have saved a ton of money if I had just stayed in my office or lived in my office. But, for me, it's like, I'm mentally healthy—a lot more healthy—for not living where I work all day... And then, I'm really glad I got to know these guys, because I still stay in touch with them and talk to them regularly even now. (Paulsen 2021)

4.1 Analytical Conclusions and Limitations

In discussing the results of this thesis, it is especially important to be mindful of the usual distinction between correlation and causation. The qualitative section anecdotally supported the first hypothesis, which posited a correlation between roommate status and legislative collaboration, and strongly supported the second hypothesis, that moving into a shared residence was indeed the *cause* of the increased rate of collaboration among the roommates.

Roommates from both groups laid out a basic schematic in interviews with me: the focal point of their interactions with the group occurred in the shared residence during the late evenings, when the roommates would return from the usual dinners and fundraisers to relax, watch television, and prepare for the following day. While doing so, of course, they would chat

with one another casually about their days, including their ongoing projects. This shared space happens to be unique during the Washington workweek, because lawmakers do not typically have the opportunity to relax with others in a way that is uninterrupted, long in duration, and relatively intimate. The casual, unstructured time enabled the four roommates first to become friends, and then to offer one another advice and resources on an *ad hoc* basis. More senior legislators would give more junior roommates tips on winning committee leadership positions, for example, or on passing a piece of legislation. Roommates with different networks would catch one another up on goings-on elsewhere in Congress, occasionally presenting new opportunities to synergize. By and large, the interviewees believed that this information-sharing was the most important legislative benefit they received from the arrangement, rather than any kind of direct material aid, though they agreed that direct collaboration did happen as a result, as well. All three causal mechanisms—proximity, encapsulated self-interest, and altruism—were supported in this analysis. As one might suspect, ideological compatibility and district-interest compatibility were necessary conditions for material collaboration to occur, and an overlap in subject-matter expertise (“issue portfolios”) was a further catalyst for collaboration. Especially surprising in the analysis was the strength of support shown by roommates in leadership and committee elections, though Paulsen rightly notes that this may be a two-way street: non-roommate competitors likely feel that their resources are better spent competing for non-roommates’ votes. Of course, they attributed the greatest importance to the friendships they built, and they cited other possible benefits, like improved mental health, for example.

In terms of implications for the legislative impact, though, this idea of clustered information-sharing is perhaps qualitatively different from what I had originally hypothesized; however, it makes sense that a marginal increase in direct collaboration would be taking place

against a backdrop of indirect assistance. Importantly, this shared increase in productivity appears to be novel; in other words, it does not appear to be a redistribution of productivity that might have happened with other people had it not happened in the shared residence. Essentially, because the cooperation is focused around a unique social environment in the late evenings, it is not crowding out other collaboration that happens during the workday among non-roommates. The only rival legislative use of this late-night period, typically, would be something like writing documents and reading briefings. The roommate group has thus functionally “unlocked” new productivity rather than shifting around old productivity.

If roommate arrangements happened at a wider scale, these qualitative findings could be reflected by a kind of cluster network, where each roommate has access (albeit, realistically, imperfect access) to the knowledge and resources of their full set of roommates, creating a small positive externality for the whole body as the Congress became cumulatively more efficient. At a certain critical point, however, it may also be possible that clusters would stop sharing information with one another and produce a negative externality; for example, the potent allyship of roommates in leadership elections might trigger bad feelings between clusters as they compete for finite positions. Alternatively, that allyship could become less potent over time.

Unfortunately, since there is no data on this phenomenon at a sufficiently large scale, it is impossible to test these counterfactuals.

The quantitative analysis conducted in Chapter 3, meanwhile, found strong support for the first hypothesis (correlation) but no support for the second hypothesis (causation). It discovered a roommate peer effect that appears to increase the likelihood of cosponsorship to the tune of two percentage points, about half of the magnitude of the increase associated with being in the sponsor’s political party, and a substantial finding compared to the 6-8% chance of

cosponsoring any one bill sponsored by a co-partisan. This “roommate effect” is also roughly equivalent to the increase in the likelihood of cosponsorship associated with being a member of a committee into which the bill is introduced, and it is possible that the two affiliations are substitutes for one another with respect to socially stimulating peer effects, to a degree. The effect is roughly similar in magnitude for members of either party, at least for residences that are occupied only by members of a single party. For any number of possible reasons, the effect was slightly greater in magnitude for the group of Republicans, by about three-quarters of a percentage point.

However, the second hypothesis—that moving into a shared residence was indeed the *cause* of the increased rate of collaboration among the roommates—is not as easily supported quantitatively. This is typical for peer-effects analysis in American legislatures, where true randomization of a sample of legislators is not a real possibility (c.f. Dietrich 2020; Rogowski and Sinclair 2012; Shalizi and Thomas 2011; Masket 2008; Caldeira and Patterson 1987; versus Harmon, Fisman, and Kamenica 2019; Saia 2018). The difference-in-difference-in-difference analysis conducted at the end of Chapter 3 found that there was no statistically significant difference in the two “treated” legislators’ preferences between D Street roommates and non-roommate Democrats before and after they moved into the residence. However, the sample was also small and weak. In the presence of clear correlational data and the absence of clear causal data, we can draw no strong quantified conclusions regarding most aspects of causality. Reverse causality is possible, for example: these legislators who chose to room together may have had some shared social characteristics not captured by my control variables that made them more likely to collaborate with one another anyway. Indeed, two-way causality, the combination of both of these directions of causation, is the most likely. Alternatively, a third

variable could be a causal factor; for example, the D Street group had a long-running dinner series with a number of like-minded legislators (Kane 2015b) that may have stimulated some of the collaboration captured by the *roommate* variable rather than, say, a less-observable *dinner-guest* variable. That could make the roommate peer effect in isolation somewhat overstated. This would also explain the failure of the difference-in-difference-in-differences result derived from Gejdenson's and Durbin's transition into the shared residence, as they shifted from the dinner-guest group into the only-slightly-narrower roommate group.

Therefore, the answer to the second research question has to rely upon the qualitative findings. First, this observed "roommate effect" in the quantitative data derives instead from a mixture of several causes, including self-selection, with the shared residency being just one cause among them. However, given the unique circumstances of the roommate relationship, the magnitude of the impact of shared residency alone may be substantial—it may well even indeed be the majority of the effect. The findings from the extensive investigation into encapsulated interest, proximity, and altruism as the proposed intermediate mechanisms for an increase in collaboration reinforce the probability that there is indeed fertile ground for cooperation being created by sharing an informal residential space. Since the available evidence generally indicated that trust was being built and utilized by the roommates, that proximity was a factor, that encapsulated-interest behavior manifested in instances of collaboration, and that the late-night productivity was novel as opposed to redistributed from elsewhere, it is almost impossible that the roommate relationship was not a main driver total "roommate effect." The problem is determining precisely just how substantial that contribution is, relative to other drivers.

Perhaps it is useful to explore the tentative finding that being a roommate of the sponsor's and being on a committee into which the bill is introduced have equivalent and

substitutable effects on the odds of a legislator's cosponsoring a particular bill. It is easy to see that being on a relevant committee should increase one's odds of cosponsoring a bill: the sponsor will seek out stakeholders within the committee first because that is the first place the bill will go (proximity). The sponsor will also be more naturally drawn to committee members because they are more likely to be experts on the particular subject matter, and more likely to be interested in taking some credit for the bill's later passage (encapsulated interest). Finally, it is very likely that the sponsor is also a member of the committee in question, so it is also more likely that they have developed friendships with members on the committee (social-psychological influences) and more likely that members of the committee are interested in supporting them in exchange for a favor in the future (encapsulated interest).

Roommate status occurs through similar circumstances and operates similarly. In joining a particular committee, legislators will navigate toward their preferences within a system that imposes some limitations on that choice. In joining a shared residence, meanwhile, there is an element of self-selection along one's personality preferences, along with an external limitation in that there are only so many open rooms and so many members of Congress looking for roommates. Just as being on a relevant committee can still cause a real increase in collaboration separate from the impact of self-selection onto that committee, a roommate relationship can induce collaboration even separate from the collaboration that might have been induced from self-selecting into a group along lines of homophily. Proximity seems to be the font from which that augmentation flows, as it both enables more frequent opportunities to collaborate and encourages closer friendships, generating a greater degree of altruism.

Thus, just as one might first seek out a committee member for their policy expertise, one might happen upon a roommate first for their advice and input. Two committee members or two

roommates alike have the circumstances to more frequently trade favors in a mutually beneficial encapsulated interest relationship. Just as two committee members are more likely to have an altruistic friendship than your average pair of members of Congress, on account of their frequent interactions, so too are two roommates.

The idea that the two are substitutes is, again, a weaker and more tentative finding in the statistical data, but it is quite intuitive, and for that reason serves as an apt illustrative device. Congressional caucuses function similarly (c.f. Ringe, Victor, and Carman 2013). Two interviewees suggested that a smaller version of this effect may be visible as a product of CODEL travel, as well, an interesting prospect for future study (Delahunt 2021; Panetta 2021). The point is that any informal, frequent social contact in a smaller, stable group is likely to induce a greater degree of collaboration for a number of reasons, even after taking secondary considerations like self-selection into account.

There are some other important limitations of the quantitative study. First and foremost, it only includes white male members of the House of Representatives. Seeking to respect lawmakers' privacy, I only selected as case studies those groups who have 1) clearly entertained or sought out extensive media attention about their shared living space, and 2) have dissolved and are no longer living in one of the houses discussed. These were the only two groups that fit the description. Given the shifting demographics of Congress, I hope that this will change soon, and that research will be able to include a more diverse slate of lawmakers in similar analysis in the future.

It also only includes shared residences that are each of a singular party. A cross-partisan congressional home does exist—namely, the Christian fundamentalist residence on C Street (c.f. Roig-Franzia 2009)—but it is not an ideal source for data as there is too much secrecy involved

to be able to track its membership reliably, and its residents' shared religious orientation would have to be controlled for with some complicated re-manipulations of the existing data. Cross-partisan living is worth further exploration, though, as legislators occasionally suggest it as a remedy for polarization; the Shimkus house interviewee Paulsen, for example, is a moderate Republican who indicated a willingness to engage more with Democrats in social scenarios like these.

Finally, it is very important to note that this case study approach examines two instances where groups of legislators *chose* to be roommates. In other words, these were groups of congressmen that both 1) were comfortable living in close quarters with other people and 2) felt that they were compatible with the particular group of people they chose to live with. There is no guarantee that the same findings would be applicable to groups of roommates who came together involuntarily, or to more introverted people who may not even function well with roommates in the first place. Indeed, that may not even be likely. In fact, given the impossibility of a full observational study with comprehensive information on the entire Congress's living arrangements, there is still not a guarantee that these findings would hold anywhere beyond these particular two case studies, even though that conclusion, at least, seems likely. Additionally, the "roommate effect" might change under new environmental circumstances, for example reforms to congressional campaigns, new legislative procedures, or further increases in polarization. However, it does seem to have operated fairly consistently across these samples, which stretch all the way back to the early 1980s, and it does not seem to be limited in scope by the "type" of legislation, affecting flagship bills and parochial interests alike across many different policy subjects.

4.2 Prospects for Future Research

Given these limitations, other researchers might consider looking at state legislatures instead for similar effects; that broader search will also turn up more diverse groupings of legislators, including both cross-partisan homes as well as groupings including people holding different ethnic, racial, and gender identities. There is even at least one cross-partisan marriage at the state legislative level (Altimari 2017). Clearly, there is a rich supply of material for peer-effects analysis, should scholars choose to take it up.

Analysis with more diverse samples of roommates would be particularly helpful for testing different possible implications posed by the contact hypothesis. Interpersonal contact between members of different groups—as usually studied between members of different races and ethnicities—has long been associated with improved perceptions of those groups on the part of the individuals, especially under equal-status, positively-minded, intimate, and cooperative conditions (Allport 1954; Pettigrew 1998; Pettigrew and Tropp 2006). However, others have recently argued that the contact hypothesis needs further exploration before any definitive conclusions can be drawn (Paluck, Green, and Green 2019). Meta-analytic research has also shown that it is plausible to extend contact theory beyond race and ethnicity to other types of groups (Pettigrew and Tropp 2006, 768), and there have been a small number of applications in the world of politics, partisanship, and depolarization. Even imaginary contact has been shown to reduce negative attitudes toward political out-groups, for example (Warner and Villamil 2017). Roommates that vary across race, gender, and party would be suitable for testing these samples, potentially leading to novel conclusions about the contact hypothesis.

Contact theory can have two opposite impacts on the structure of roommate collaboration. On the one hand, it would expect roommates to collaborate across ideological divides between each other at a rate that is divergent from that of their non-roommate colleagues.

On the other hand, the contact hypothesis implies that it is possible that intergroup contact among roommates will also translate to more cooperation between roommates and out-group non-roommates (e.g., that after an ideologue collaborates with a moderate roommate, they may be more likely to collaborate with moderate non-roommates in the future), which would then narrow the same expected divergence.

There are other complexities and limitations. More recent research has cautioned that partisans may not operate quite like other groups in contact theory: instead, opinions of the outgroup are moderated through newly-learned commonalities rather than direct contact and empathy, and cooperative scenarios are more limited in their relative usefulness than in other circumstances (Wojcieszak and Warner 2020). Other research, centered around differing opinions on immigration in Europe, finds asymmetrical outcomes: namely, that right-wing partisans, due to a defensive political orientation, are more ideologically constrained than leftists in their ability to translate positive contact with a member of the out-group to opinions about the outgroup as a whole (Thomsen and Rafiqi 2019). These factors may limit analysis of the contact hypothesis in a cross-partisan legislative household.

Finally, other proxy metrics beyond cosponsorship should be explored quantitatively. While cosponsorship is certainly the traditional metric for studying American legislative collaboration, it does have its limitations, and there are other equally valid metrics that have substantively different manifestations. One particularly promising avenue, pioneered by Desmarais et al. (2015), systematically tracks joint press appearances between members of Congress as another proxy for collaboration. The network is significantly less partisan than cosponsorship behavior, and press events may dynamically reflect more intricate processes of collaboration that develop across greater ideological gaps. They can be used to represent the

frequency of negotiations, and can signal successes and failures procedurally, as collaborations stall or revive (see e.g Kaiser 2013).

4.3 Policy Discussion

This paper's policy implications involve some relatively peripheral proposals compared to typical mainstream issues, but two relevant discussions in particular have garnered some focus over the past several years: digitizing congressional business (c.f. Zuckerman 2019; Jankowicz 2020; Cortellessa and Harris 2021; see also Dreier 2001 in the context of 9/11) and inducing members of Congress to live together (c.f. Schwedel 2017; Cooper 2018; Ocasio-Cortez 2019b; Sasse 2020).

The most extreme rationale of the former goes along these lines: George Washington's original prescription for an ideal House of Representatives was that a member of Congress would represent approximately thirty thousand people (Madison 1787). Today, that would translate to some 11,000 representatives, far greater than the physical capacity of Congress and its office infrastructure, hence the proposal for a Congress that convenes and operates entirely digitally (Zuckerman 2019). After the COVID-19 pandemic introduced telework to many Americans, this idea may regain traction in some circles. Others have proposed more limited digitization of Congress (Jankowicz 2020; Cortellessa and Harris 2021), for example making hearings and briefings function virtually. Clearly, there are a number of trade-offs implied by this proposal, most of which are beyond the scope of this thesis. For example, giving Congress the capacity to operate virtually would be an important benefit in the event of emergencies and attacks, including the ongoing COVID-19 pandemic. However, this paper weighs in by introducing a very significant cost to the proposal of permanent digitization: limiting or eliminating in-person social interactions would likely strip Congress of the collaboration induced by peer effects such

as the “roommate effect” analyzed here. Researchers and members of Congress, including Panetta, generally agree on the importance of those collegial interactions—going as far to say that they are what allow the body to operate—and as such, these proposals to digitize legislators’ interactions are unlikely to gain much traction (Dreier 2001; Ringe, Victor, and Carman 2013; Esterling, Lazer, and Neblo 2020).

Indeed, weaker social ties (such as those that may arise from virtual rather than in-person interactions) are qualitatively different from strong ties, in that they tend to reinforce macro-group cohesion and imitative, herd-like behavior while diminishing individual contributions by “lower-level” participants; this would possibly focus social power even further around a number of well-established “leaders,” ostensibly party leadership or other prominent figures (Granovetter 1973; Seering, Kraut, and Dabbish 2017; Zhao, Zhang, and Bai 2018). A digital Congress therefore may accelerate polarization, which would further cripple American democratic responsiveness (c.f. Jacobs and Shapiro 2000). Weak ties among a large group are most useful as a means of being exposed to new information and strategies that have been generated by smaller strong-tie clusters (Scholz and Wang 2009), and can stimulate creativity (Baer 2010)—just as they do today in Congress (c.f. Kaiser 2013). However, the most beneficial arrangement appears to be an optimal balance and diversity of weak ties and strong-tie clusters (Baer 2010; Scholz and Wang 2009; Watts and Strogatz 1998), which a digital environment is currently not likely to produce (consider Elmer, Mephram, and Stadtfeld 2020). A network of legislator-roommate clusters would be comparable to this ideal, for example, where strong ties bind the roommates, and then weak ties facilitate connections and interactions between the different groups of roommates to optimally stimulate productivity. Panetta’s “intelligence network” is again an apt illustrative device.

Congressional housing, meanwhile, is more widely recognized as a field ripe for salutary disruption. Salaries have plateaued while expenses have risen, so many members of Congress have difficulties affording rent in the District of Columbia while also supporting their family back home (Bloom 2017; Cooper 2018; Swalec 2014, 2018), an issue that has risen to greater prominence as Congress diversifies and grapples with its image as a disproportionately wealthy body relative to the American population. As a result, increasingly large numbers of representatives sleep in their offices, a practice which some lionize (Hirschhorn and Andrews 2011; Steinhauer 2015), but one which is more typically condemned as unsanitary, unbecoming, and potentially unethical (Hawkins 2015; Schultz 2018; Sprunt 2020) in that the members of Congress are receiving free lodging from their employer, a benefit which the IRS typically taxes as a form of income.

Some legislators, like former representative Jason Chaffetz of Utah, have proposed a housing allowance or subsidy as a solution (Bloom 2017; Sisson 2018). However, increases in congressional salaries and benefits are politically toxic, especially in today's era of perpetually dismal congressional approval ratings, so stakeholders across the aisle have recognized that this proposal is unlikely to pass unless circumstances change or it is done in a creative way (Freed 2017; Schultz 2018; Ocasio-Cortez 2019a). Thus, as was the case for the D Street and Shimkus roommates, sharing living space is typically the most viable alternative for members to save on rent—which is where the conclusions of this thesis become relevant. Since cohabitation appears to stimulate new cooperation and productivity, at least in these case studies, it appears that members may be able to simultaneously save on rent and accomplish more politically should they choose to live together. This is a powerful combination of incentives, and it is ironic that the increasing hardship for legislators may stimulate greater productivity. However, since most

members on both sides of the aisle believe (with good reason) that it is undesirable for wealth to be a barrier to congressional service, they might consider both passing a housing subsidy while also encouraging sharing living space at the same time. Alternatively, Congress could experiment with maintaining a small number of shared, rentable residences for its members, geared toward new members and leased out via some kind of lottery, as one might do in university housing, for example. Paulsen agrees with this principle, citing the potential difficulties legislators might encounter in establishing an informal arrangement similar to Shimkus's shared townhome:

The challenge with that is you've got to have someone who has the financial wherewithal to at least start the process, right, or to figure out how to put it together. And that can be real challenging: in Washington, for instance, especially people you know, they're there for two-year periods of time, and you don't know how long they're going to be there, right? So that's why I think sort of the dorm option—if you want to call it that—is something that should legitimately be considered and talked about. (Paulsen 2021)

This dual rationale might increase the likelihood of passing of a housing allowance in the first place, as the subsidy could be smaller if housing is shared—as well as more easily justified as an instrument for improving collaboration and productivity.

As Paulsen notes, other legislators, including Democratic Representative Bennie Thompson and Republican Senator Ben Sasse, have proposed a greater commitment to cohabitation: creating a dormitory for members of Congress (Garcia 2018; Sasse 2020). Theoretically, this would involve a construction or renovation project like converting the old congressional page dormitories into a housing option for members of Congress themselves (Garcia 2018; Schultz 2018). Not only would this provide members with stable, affordable housing, they argue, but it would also create new socialization between representatives that would help to moderate polarization and improve bipartisanship. Panetta agreed that this would

be an effect of constructing a dorm. Many members of Congress, though, hesitate at the idea (at least in public), citing hesitations about the particular arrangement, including a potential security risk, and also claiming there would be better uses for taxpayer dollars. For example, one Democrat stated that if anything, a dormitory should be used to help interns, not members of Congress, and one Republican noted “It might be a breeding ground for something bad,” (Garcia 2018). Either way, as Delahunt described to me, a dormitory is unlikely to happen because nobody is likely to ever be willing to champion it.

These are fair criticisms, and they prompt another important point. This thesis used a case study approach, examining “positive” instances of roommate groupings. In other words, it only observed those groups of legislators who voluntarily and successfully came together to live in a shared residence. It did not observe groups of legislators who rejected the idea of living with other legislators, or who could not find suitable roommates for their tastes. The implication is that cohabitation may not be a net stimulator of cooperation and productivity for all legislators, even if it seems to do so for some. Any directive to cohabitate, especially the proposal of a dormitory, must grapple with this difficulty, and should not establish it as a one-size-fits-all solution for everybody. As Gejdenson described it in an interview with me,

I don't think you can mandate these kinds of things... Whatever works for people: some people, at the end of the day, need to be alone, and *like* that... So, you know, I think it's got to be a natural development: you can't force it on people. Some people it works for; some people it doesn't work for. And, you know, that's where to leave it. (Gejdenson 2021)

Gejdenson’s point is well taken. Paulsen makes a similar note above with respect to a “dorm option”—a dormitory, if it is created, should be smaller, geared toward new members, and optional rather than mandatory or quasi-mandatory. Indeed, this thesis does not demonstrate that a universally mandated living arrangement will have universally positive effects, as that was

beyond the scope. Representative Ocasio-Cortez, since 2018 arguably the sitting representative with the most prominence on the topic of reforming congressional housing, points out a similar limitation: any living arrangement has to be compatible with the wide diversity of family situations members bring with them to Washington (Ocasio-Cortez 2019b). Some currently live in Washington with family members, for example. Would spouses or children live part-time in a dorm or shared residence, too? That prospect is unlikely to be appealing, and it would further limit the pool of legislators for whom cohabitating would be valuable.

The other important fact is that not all combinations of legislators are equally compatible as roommates, even if they are comfortable with the idea of sharing living space with a fellow legislator. The idea that shared living spaces will blossom into productive cross-partisan friendships is a central rationale behind certain dormitory proposals. It may be true, or it may not: the question merits further research. For now, both groups in these case studies cited ideological compatibility and like-mindedness as important prerequisites to their collaboration and friendship. This paper's conclusions about increased cooperation directly apply only to those self-selecting groups; translating them to randomized roommate groupings or cross-partisan pairings is therefore apples-to-oranges and may not be appropriate.

One could also imagine a converse set of conditions: what would happen if legislators were required to live together, but could still select their own roommates? Such an environment might resemble the 18th- and 19th-century Congresses, where the only realistic living arrangement for members of Congress were large shared boardinghouses that became quasi-political factions. It is not necessarily a "good" thing that those boardinghouses exerted influence as voting blocs; indeed, it is likely that constituents would prefer that their representative's preferences directly reflect their own, rather than subject them to being filtered by an arbitrary

smattering of legislators who just happen to sleep next door. While the influence of a large group living arrangement is unlikely to be as strong in the modern era, given our diverse and voluminous sources of information and vastly larger ecosystem of behavioral influences, it is a demonstration of the potential risks increasing cohabitation can pose. This paper did not study collaboration normatively, as that is beyond the research's purview; it only quantified cosponsorship decisions and examined different forms that collaboration could take in residential situations. In a polarized Congress, for example, there is a risk that certain combinations of roommate relationships could redirect collaboration even further toward the extremes of the parties rather than across them, accelerating polarization. One of the characteristics of the voluntary roommate relationships in the case studies was ideological similarity; if one forced more and more members of Congress to cohabit, they might have to eventually create more mismatched groups out of necessity, and this more divergent influence could disproportionately redistribute legislative outcomes accordingly. Russo, for example, became more liberal after his time in the D Street house (Panetta 2021; c.f. Moberg 1992). Alternatively, it could simply diminish the amount of novel collaboration produced in a shared residence—however, both are possible, and they pose risks that should be accounted for.

The limited applicability of roommate cooperation in turn delimits the appropriate range within which to encourage cohabitation. Legislators should not necessarily be required to live together, and they should not necessarily be assigned roommates at random. This paper does not deal extensively with evidence that is applicable under either condition. However, since I do find that voluntary, self-selecting roommate groups stimulate new collaboration, it *would* be appropriate to encourage or facilitate the creation of more such groups. This can theoretically be done formally through a resolution or legislation—even alongside a small housing subsidy, or

through congressionally-owned rentable housing, for example—but, more realistically for now, it would be done informally through the party organizations and networks. For example, a quick nudge or some kind of dedicated information exchange managed by leadership staff could all be useful resources provided to new members of Congress during the orientation session and again for stragglers at the start of the session. More encouragement to find roommates could improve the quality of congressional life in other areas, too. Namely, if the Speaker of the House eventually forbids the practice of sleeping in one's office, as other Speakers have done in the past (Steinhauer 2015), that prohibition would in turn substantially increase the pool of people looking for roommates, and an established roommate-matching infrastructure would in turn appease those legislators by lowering the cost of an alternative living arrangement while simultaneously improving congressional productivity. The lowering of that cost may even better enable the Speaker to promulgate that rule in the first place.

Other ideas or systems may be equally plausible; these are just demonstrative suggestions of steps lawmakers might take to creatively increase the quantity or quality of legislation coming to the floor. The same rationale has been used to generate collaboration among regular social meetings set up over a meal, for example—however, the unique features of a “roommate effect” appear to be its long duration, relative intimacy, and the lack of business-day interruptions, which are not quite covered over the short duration of sharing a meal. Nevertheless, perhaps the insignificant difference-in-difference-in-differences result taken from Reps. Gejdenson and Durbin implies that their dinners with the group prior to moving in were effective at stimulating collaboration. Panetta, Delahunt, and Paulsen agreed that there are other social situations that produce similar but smaller effects, such as special events, sports teams, travel, and spending time in the congressional gym. If Congress seeks to experimentally test for peer effects, they

might do well to try out randomized groupings for a series of meals; this is much more feasible than randomized housing assignments. Either way, such a proposition is beyond the direct scope of this analysis.

The relevant analytical conclusions of this investigation remain the same: roommate status appears to be associated with an increase in collaboration among those roommates, and expectations regarding a particular causal mechanism for that increase are mixed. There is an element of self-selection, but the greater opportunities for interaction do appear to stimulate novel cooperative productivity among the legislators sharing a home. Some of the novel cooperation comes from that simple proximity directly; however, qualitative evidence indicates that there are also rational self-interest and altruistic behavioral influences contributing to the increase, and that the increased interaction augments these influences as well. These conclusions are limited to residential groups of legislators that already have a natural inclination to form, on bases like shared values and personality traits, and thus should not be applied to groups assigned at random without further research. Therefore, the policy recommendations are narrowly tailored: any form of congressionally-maintained housing should probably be nonrandom and optional, and each party's leadership should use its resources to "nudge" cohabitation among those legislators who may be predisposed to do have roommates, but just need encouragement or help finding a compatible group of people.

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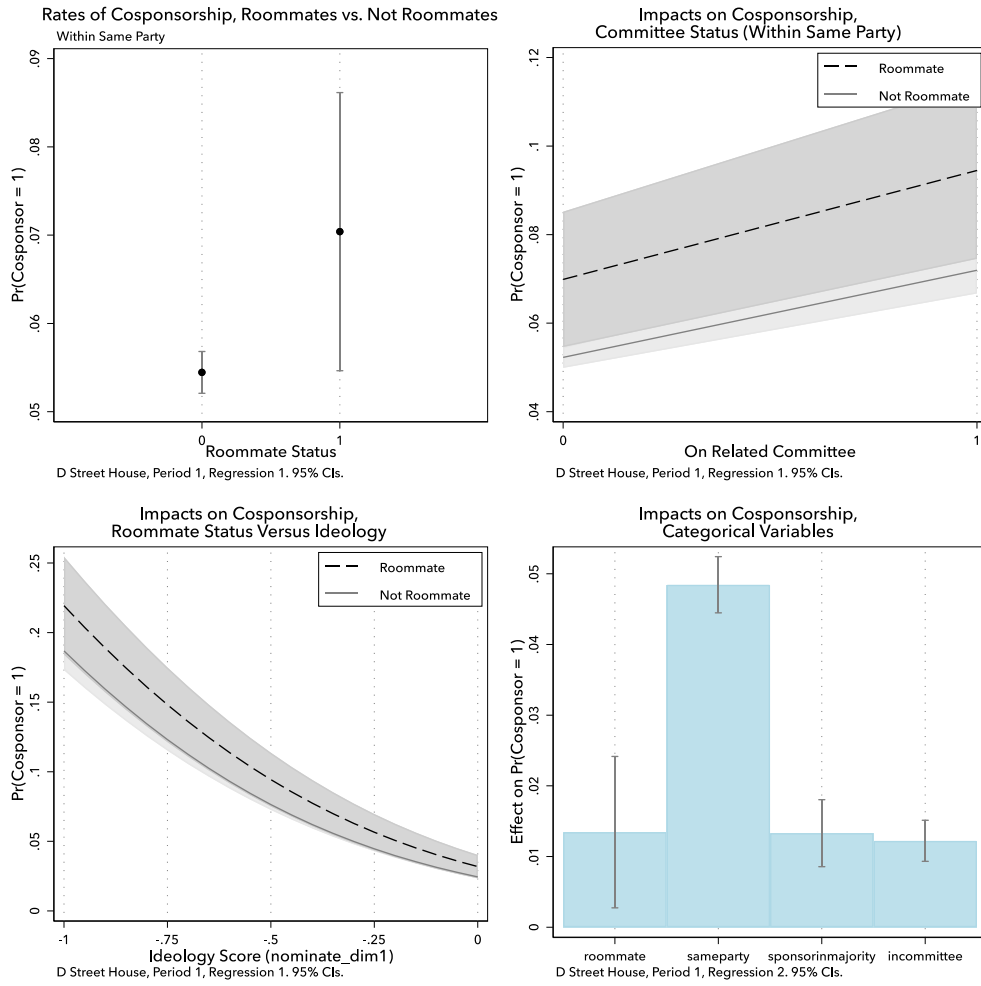
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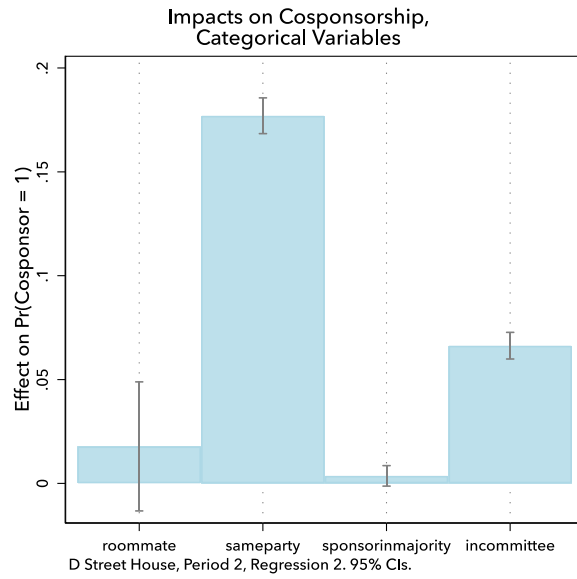
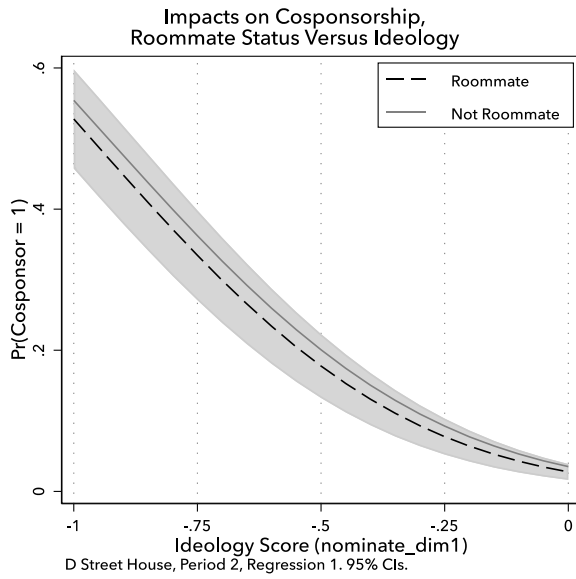
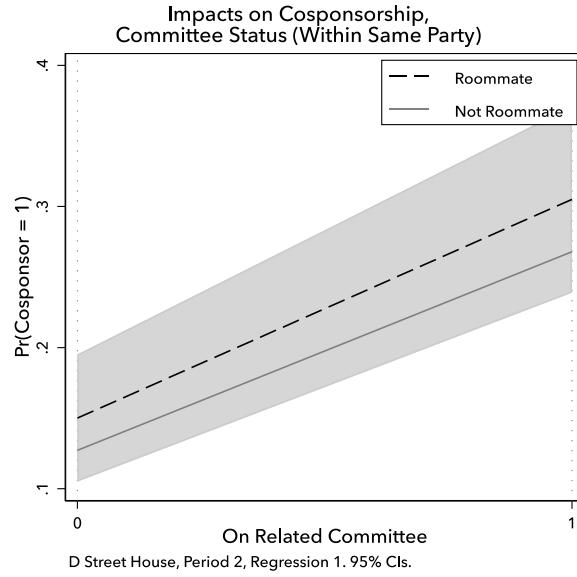
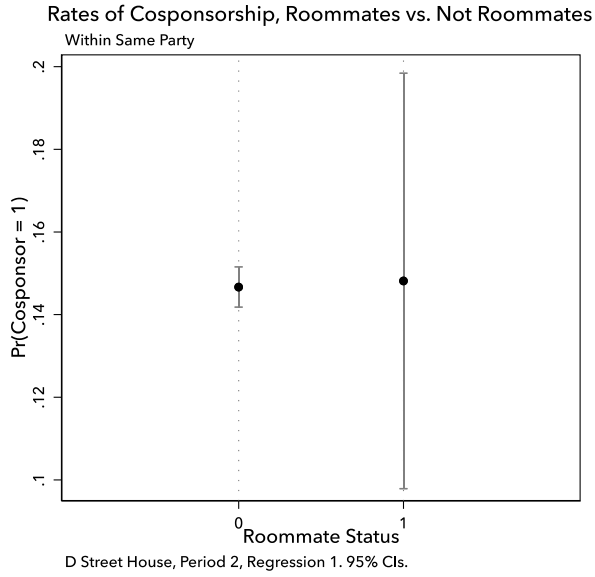
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6 Appendix – Supplementary Charts

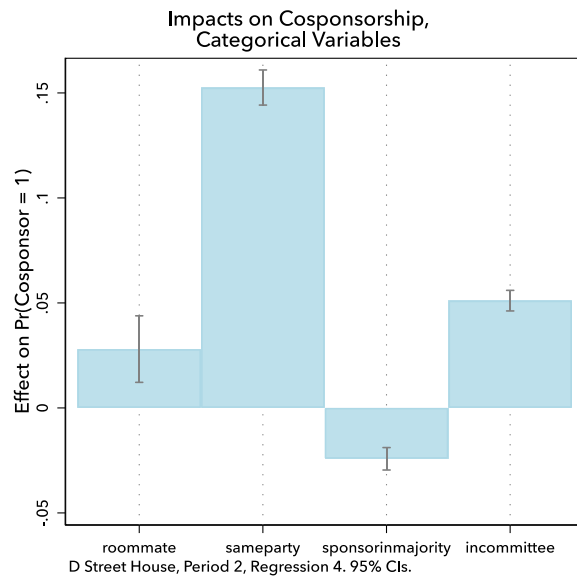
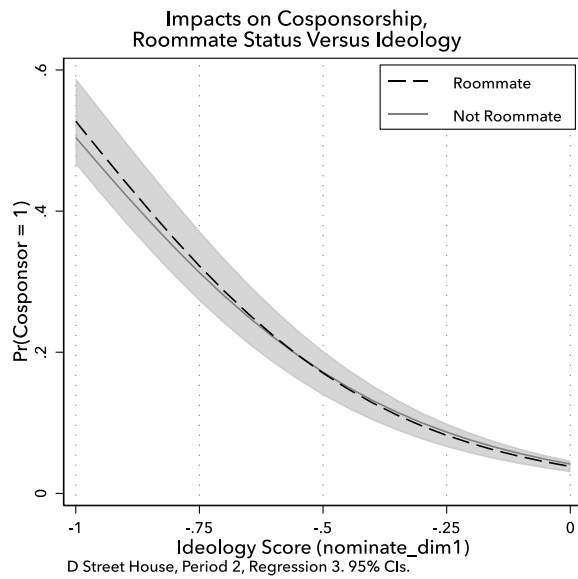
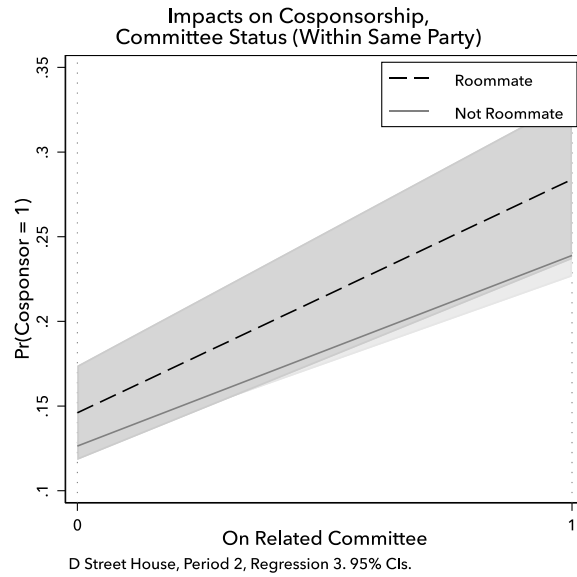
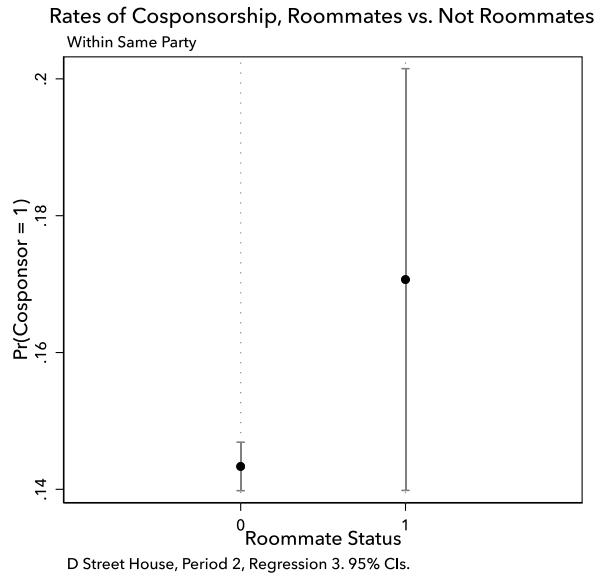
Figures 18 – 21



Figures 22 – 25



Figures 26 – 29



Figures 30 – 33

