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Unequal Seats, Unsteady Trust: Inequality of Representation and Confidence in Parliament in Bicameral Systems

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Abstract

The number of countries with bicameral systems declined enormously throughout the 20th century, as countries like Sweden and Denmark abolished their upper houses, and numerous other countries weakened the formal powers of their upper chambers. Existing research suggests that legitimacy is a critical factor in the survival of bicameralism, but scholarship on legitimacy in bicameral systems is limited. Inequality of representation has been identified as a reason why bicameral systems may lack legitimacy. This thesis aims to capture how inequality of representation affects the social legitimacy of bicameral systems. Through the analysis of how seats are apportioned in upper houses and data on individual confidence in legislative institutions from the European/World Values Survey joint dataset, an OLS-regressions model shows that while an overall increase in inequality of representation decreases an individual's confidence in parliament, individual factors such as residency in a rural area, political identity, and sex may not have any impact on confidence in parliament given an increase in inequality of representation. This research contributes to prior attempts to understand how legitimacy contributes to bicameralism.

Keywords: Bicameralism, Inequality of Representation, Confidence in Parliament, Legitimacy, Malapportionment.

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1. Introduction

Various political theorists have claimed that bicameralism, the separation of legislative bodies into two chambers, has many benefits. The American Founding Fathers Alexander Hamilton and James Madison argued that the presence of a second chamber provided a check on executive power and protection against the tyranny of the majority, as it "doubles the security to the people, by requiring the concurrence of two distinct bodies in schemes of usurpation or perfidy" (Madison, Jay, and Hamilton 2008, 306). Another Founding Father, Benjamin Franklin, argued that:

> "A plural Legislature is as necessary to good Government as a single Executive. It is not enough that your Legislature should be numerous; it should also be divided. Numbers alone are not a sufficient Barrier against the Impulses of Passion, the Combinations of Interest, the Intrigues of Faction, the Haste of Folly, or the Spirit of Encroachment" (Franklin 2004, 365).

However, not all political theorists have held positive views of bicameralism. The French constitutional scholar, the Abbè Sieyès felt that bicameralism would always lead to gridlock and democratic breakdown, comparing legislatures with two chambers to two horses pulling against each other in a tug of war:

> "Two horses harnessed to the same carriage, which we would like to go in opposite directions, and so remain where they are, regardless of promptings to the yoke and the stamping of hooves, unless a royal coach is mounted at the front to give them direction" (Rubinelli 2019, 27).

In the modern political debate around bicameralism, the United States Senate has long been seen as a fundamental pillar of American democracy. However, the Senate's reputation as a democratic institution is increasingly being questioned, with political scholars charging that the Senate's institutional malapportionment gives one political party an institutional advantage (Johnson and Miller 2023). The deterioration of the Senate's democratic reputation mirrors a trend in many bicameral democracies, where reform efforts and abolition attempts have disempowered or decreased the number of bicameral systems drastically over the course of the last century. Countries that have abolished their second chambers include New Zealand, Denmark, Sweden, Iceland, Peru, and Turkey (Uhr 2008). Scholars note that a key factor in the abolition of bicameral chambers is whether the chamber is seen as legitimate (Tsebelis and Money 1997; Uhr 2008).

One delegitimizing aspect of the U.S. Senate's constitutional design is its inequality of representation. Inequality of representation, when a territory or some other group is

overrepresented in legislative institutions, has been long seen as an important aspect of bicameralism, especially in federal countries like the United States or Australia. The current system of constitutional malapportionment in bicameral countries like the United States, Australia, and Canada is the result of historical compromises that were required to get many small colonies to agree to merge into a single, larger state. During the drafting of the United States Constitution, a great debate raged between smaller states that wanted to ensure that they were not overruled by larger states and larger states that favored a constitutional design that ensured that they were treated proportionally to their population size. Two competing constitutional proposals emerged: smaller states proposed that Congress consist of a single chamber, with each state having an equal number of representatives. Larger states proposed that Congress represent each state purely proportionally to each state's population. After much debate, a compromise emerged where both systems would be combined with a lower chamber called the House of Representatives, where seats would be allocated proportionally to state population size, and an upper chamber called the Senate, in which membership would be equally distributed. The United States Constitution has served as a model for many other countries, most notably Argentina and Australia (Tsebelis and Money 1997).

Existing comparative research on bicameral systems has focused on categorizing bicameral institutions in terms of strength (Lijphart 2012) and attempts to incorporate legitimacy into calculations of strength (Mueller, Vatter, and Dick 2023; Russell 2013; Vercesi 2017), the relationship between public opinion and policy responsiveness in bicameral systems (Ezrow, Fenzl, and Hellwig 2023; Rasmussen, Reher, and Toshkov 2019), and the effects of bicameralism on policy output (Mueller, Vatter, and Dick 2023; Vatter 2005).

Despite how important legitimacy is to the survival of bicameral institutions, surprisingly little scholarship has been dedicated to investigating what affects the legitimacy of second chambers (Mueller, Vatter, and Dick 2023). While scholars have studied malapportionment and inequality of representation, scholarship on bicameralism and malapportionment has not examined the effects of inequality of representation on how individuals view legislative bodies. This thesis will attempt to capture how inequality of representation affects the social legitimacy of bicameral systems. In this light, this thesis seeks to answer the question:
How does inequality of representation in bicameral systems impact citizen confidence in parliament?

The importance of this research is myriad. From a social perspective, we want democracy to survive, and democracies are more sustainable if they don't draw upon institutions that are seen as illegitimate. From a scientific perspective, this research is important because it seeks to fill a hole in the existing literature on legitimacy and bicameralism, and it provides a model for other scholars to follow to better measure legitimacy in this context.

The first section of this paper is a literature review that will focus on defining/categorizing bicameralism and the impact of bicameralism, legitimacy, and malapportionment. The second section contains hypotheses and proposed mechanisms for each hypothesis. The third section focuses on research methods and variables with a discussion on how cases were selected and information on how each variable was coded and recoded for analysis. The fourth section contains the results of my models with descriptions of the regression results and analysis of my hypotheses. Lastly, some concluding remarks and suggestions for how future studies can expand on the research presented here. An appendix is attached with tables that show how the measure for inequality of representation was calculated and some robustness checks.

2. Literature Review

2.1 Bicameralism and Its Impacts.

Around 40% of the world's countries have bicameral legislatures, and about two-thirds of the world's democracies are bicameral (Uhr 2008). However, bicameralism differs significantly in implementation from country to country. Therefore, an important subsection of research on bicameral systems is on how to classify them. Additionally, other research strands focus on how bicameralism impacts the representation, the responsiveness, and the policy output of political systems.

Arend Lijphart (2012) categorized bicameral systems through two dimensions: the relative strength of the two chambers (symmetry) and the difference in the selection or election method used to choose representatives for each chamber (congruence). Using these two dimensions, he was able to create an index for the relative strength of bicameralism. To Lijphart, strong bicameralism represents countries where the formal powers of the two chambers are relatively equal, and the mode of selection is the same in both chambers (directly elected and

democratic). Weak bicameralism represents systems where the second chamber is not given an equal share of formal powers when legislating and where the mode of selection differs. The United States Senate is considered to be an example of a strong second chamber because it shares equal powers over legislation with the first chamber and is directly elected, while the British House of Lords is considered to be a weak second chamber because it has few formal powers over legislation and is fully appointed. (Lijphart 2012).

A key question when analyzing bicameral systems is who each chamber is representing. This question is central to what Lijphart describes as incongruency. Lijphart describes incongruency as the difference in selection method between each chamber. In every bicameral democracy, the first chamber is designed to represent the people. Second chambers vary widely in who they are supposed to represent. In many federal bicameral systems, the second chamber is designed to represent the interests of territorial units. For example, while the House of Representatives is representative of the entire American population, the United States Senate was designed as "a constitutional recognition of the portion of sovereignty remaining in the individual States, and an instrument for preserving that residuary sovereignty." (Madison, Jay, and Hamilton 2008, 305). To achieve this aim, the United States Constitution grants each state equal representation in the Senate without regard to population size. This has resulted in a significant degree of overrepresentation of individuals from smaller states in the Senate. Not all federal systems overrepresent smaller territorial units, however. For example, the Austrian Bundesrat provides each federal state (Bundesländer) with representation proportional to their overall share of the population of the nation. In contrast to the indirectly elected Bundesrat, the Senate is directly elected.[1]

Tsebelis and Money (1997) use game theory and mathematical models to analyze the impact of intra-chamber dispute resolution between bicameral chambers. Their key argument is that even the weakest of second chambers are still able to affect legislative outcomes. Thus, the presence of bicameralism will always have some effect on policy output. They identified some circumstances, such as at the end of a government's term in office, where the mere threat of delay from a weak second chamber can be enough to kill legislation.

Another research thread on bicameralism concerns its effect on the public policy congruence and responsiveness of legislative institutions. Rasmussen, Reher, and Toshkov

[1] Senators were indirectly elected by state legislators until the passage of the Seventeenth amendment in 1912.

(2019) studied the impact of various political institutions in Europe, including bicameralism, on the opinion-policy nexus, or the congruence between public opinion and policy output. They find that countries with bicameral systems have a lower likelihood of opinion-policy congruence than their unicameral counterparts. Ezrow, Fenzl, and Hellwig (2023) studied how responsive bicameral legislatures are to changes in public opinion compared to their unicameral counterparts. They use an index of welfare state generosity and data on voter opinions collected by the Eurobarometer series of surveys on individual policy preferences to gauge how responsive each political system has been. They also use Lijphart's index of bicameral symmetry to measure if symmetry in bicameral systems has an effect on responsiveness. They find that as expected, the presence of bicameralism reduces the policy responsiveness of legislative institutions, but that the more symmetrical the division of powers between the two chambers, the less responsive the overall political system.

The impact of bicameralism on policy output has been studied in various ways. Vatter (2005) found that bicameral systems favored the parties of the liberal center and conservative right against parties of the left and extreme right when it comes to the makeup of the second chamber. This is due to the over-representation that bicameral systems focus on smaller, rural areas that are not very diverse in economic or ethnic makeup. In systems where the second chamber is appointed, like in the United Kingdom, second chambers will over-represent liberal and conservative parties because these chambers represent once-dominant social classes that favor these parties. Vatter tests how the over-representation of liberals and conservatives would impact policy changes. He hypothesizes that in countries with strong bicameral chambers, policy outcomes will reduce state intervention in the economy, weaken reform forces, and further decentralization. Vatter finds that these main hypotheses are correct, with strong correlations between bicameral strength and lessened state intervention, fewer reforms, and more decentralization. However, the previously theorized effects of bicameral chambers on executive power, political stability, and the protection of minorities were unsubstantiated. In particular, Vatter found that bicameralism had a significantly negative effect on the representation of women in national parliaments. Regarding the economic performance of both systems, Vatter finds no differences in economic growth rates or unemployment. One interesting effect that Vatter found was that countries with bicameral systems are more successful in combating inflation than their unicameral counterparts. However, he theorizes that this is a result of

bicameral systems' higher likelihood of having an independent central bank. Mueller et al. (2023) use their updated index of bicameral strength to measure the same hypotheses that Vatter proposed. Their results substantiate Vatter's findings that greater bicameral strength is correlated with less state intervention and greater decentralization. Strong bicameral chambers are associated with smaller state size, lower taxation, and a lower number of public employees. However, Vatter's finding that greater bicameral strength would have a dampening effect on reform forces disappeared when measures of legitimacy were included. The latter focus on legitimacy is very important: scholarship has established that bicameralism has meaningful impacts on policy outcomes but that measures of bicameral strength fail to capture the whole picture without including measures of legitimacy.

Taken together, previous research on the topic of bicameralism has found that bicameralism has substantial impacts on a political system's legislative output, political responsiveness, and political makeup. Therefore, it would not be outlandish to expect that the presence of bicameralism would have an impact on the legitimacy of a political system. The following section will go over attempts to operationalize and conceptualize legitimacy as it relates to bicameral systems.

2.2 Legitimacy and Bicameralism

It has been established that legitimacy is an important element when studying bicameralism and bicameral strength. However, scholars have debated to what extent legitimacy factors into bicameral strength and how best to measure it. Scholars have divided legitimacy into two different types: formal legitimacy and social legitimacy. Weiler (1990) defines *formal legitimacy* as a sort of legal status, where legitimacy depends on the existence of legal democratic institutions. On the other hand, Weiler defines *social legitimacy* as the social acceptance or support of institutions. For Lijphart (2012), the presence of legitimacy within a bicameral system was treated as an aspect of congruence. For a second chamber to have legitimacy, it had to be congruent with the first chamber, that is, directly elected. Thus, Lijphart connected legitimacy directly to the existence of democratic representation, closely resembling Weiler's definition of formal legitimacy. Lijphart also noted that the lack of legitimacy could make second chambers weaker than their formal powers would denote.

Later contributions have refined this distinction and found new ways to define legitimacy. Russell (2013) and Mueller et al. (2023) identified three major types of perceived legitimacy in bicameral systems. First, *input legitimacy* deals with institutional or constitutional design, which can include aspects of democracy, as Lijphart identified. Mueller et al. describe input legitimacy as how closely citizens are involved in political decision-making, with direct democracy being perfect input legitimacy. For Russell, *throughput legitimacy* mainly describes how courts are able to be seen as legitimate, despite their lack of election. This may come as a result of them being viewed as less political and more fair than other political institutions. Mueller and his co-authors describe throughput legitimacy as capturing the accountability, transparency, and openness of political institutions to interests. To them, the idealized form of input legitimacy is a system of deliberative democracy where reasoned opinions are exchanged equally. In contrast, *Output legitimacy* is based on policy decisions and the performance of the political system. Russell relates output legitimacy to the popularity of the actions of political institutions; thus, this can be a mechanism by which international organizations can become legitimate in the eyes of the masses. For Mueller et al., output legitimacy is also about popularity to an extent but deals mostly with the perceived performance of political institutions.

Russell studies Lijpharts' idea that second chambers can be stronger or weaker depending on their legitimacy, even if their formal powers are great. She uses two case studies to demonstrate how legitimacy can affect the de facto strength of a second chamber. The appointed House of Lords in the United Kingdom had many of its formal powers stripped after intense political conflicts with the first chamber, the House of Commons, in 1911 and 1949. After these battles, the House of Lords only retained a suspensive veto for around a year on most legislation, which was rarely used. Additionally, an informal convention held that the Lords would not exercise this veto power on government legislation contained within the party's election manifesto. In 1999, reforms to the membership of the House removed most of the "hereditary peers" who had inherited their seats through the family line. Using Lijphart's theory, the effect of this reform should have made the Lords weaker, as the chamber had been made more congruent, without changing its lack of democratic accountability. However, after the reform, the House of Lords began to show renewed confidence, challenging legislation at a much higher rate. Between 1999 and 2010, the House of Lords inflicted over 450 defeats on the government (Russell 2013).

While the 1999 reform did not confer onto the House of Lords any electoral accountability, the change in membership structure made the body made the House of Lords seem more legitimate, especially in the eyes of the public. An element of meritocracy was added now that most of the members of the House of Lords were "life peers" appointed due to their achievements. Another factor that gave the Lords more legitimacy in the eyes of the public was that it was now more proportional in how it represented political parties than the elected House of Commons. In the 2005 election, Labour was reelected with 55% of the seats in the Commons with only 35% of the popular vote. The Liberal Democrats gained 22% of the vote, but only 9.6% of the seats (Russell and Sciara 2006). In the House of Lords, the Liberal Democrats held the balance of power and were able to cast themselves as a check on the power of the government. Russell asserts this case shows that legitimacy is an important third factor that works in tandem with the institutional symmetry and congruence factors that Lijphart identified.

Following up on Russell's conclusions, multiple scholars have attempted to directly measure legitimacy, organized into two main methodological techniques. (Mueller, Vatter, and Dick 2023; Vercesi 2017). Firstly, Vercesi (2017) seeks to compare Italian bicameralism to other European bicameral systems. In this effort, he compiles an index of bicameral strength that includes legitimacy. Vercesi measures legitimacy as an index where 0 represents a wholly hereditary second chamber as the least legitimate chamber, and 10 represents a wholly elected second chamber as the most legitimate chamber. In between are wholly appointed and indirectly elected second chambers. Vercesi also accounts for whether the chamber represents interest groups or territories as a factor that can increase legitimacy. Mueller et al. (2023) criticize Vercesi's method, arguing that the presence of direct elections is, at best, an aspect of legitimacy and cannot fully capture all of the aspects of legitimacy. As an alternative, Mueller et al. (2023) seeks to create a new index of bicameral strength that includes new ways to measure legitimacy using the different aspects of legitimacy identified by Russell (2013). To measure input legitimacy, they use the mode of selection of second chambers; to measure throughput legitimacy, they measure the deliberative quality of second chambers using expert coding, and the presence of attempts to abolish or majorly reform second chambers to measure output legitimacy. Combining these aspects of legitimacy into an index, they add it to Lijphart's original index of bicameral strength. This way, they have incorporated all of the various factors that have

been identified as factors in determining bicameral strength, symmetry, congruence, and legitimacy.

Russell's case study on the United Kingdom and Vercesi and Mueller et al.'s attempts to measure legitimacy demonstrate that legitimacy is an important aspect of measuring the strength of bicameral systems. However, scholars have yet to find a concrete way to fully measure legitimacy itself. The presence of democratic institutions can be considered an aspect of legitimacy, but there is great disagreement on how much it factors into the legitimacy of any institution. The next section will go over an important factor that may reduce legitimacy in territorial bicameral systems: malapportionment in the form of inequality of representation.

2.3 Inequality of Representation

Inequality of representation describes the disparity in how certain territorial populations are represented in government institutions. Some inequality of representation is natural; population shifts between periods of re-apportionment will create some level of inequality. However, inequality of representation may also be intentional in the form of malapportionment. Research into these phenomena has been carried out along several strands, focusing on two different sub-categories of malapportionment: constitutionally designed malapportionment and purposeful malapportionment.

Malapportionment describes a situation where districts have large disparities in population, creating inequality of representation. Malapportionment can be a consequence of constitutional design where seats in a legislative body are distributed non-proportionally to the size of a territory's population (United States Senate or Australian Senate), or as a purposeful attempt to benefit incumbents or decrease the influence of certain groups. An example of purposeful malapportionment existed in the Australian state of Queensland between 1957 and the mid-1980s. Through this scheme of electoral malapportionment, the ruling Country and Liberal Party coalition were able to keep themselves in power despite losing the popular vote to the rival Labor Party in multiple elections. They took advantage of the fact that Labor Party voters tended to be more urban and Coalition voters tended to be more rural to draw smaller rural districts that would almost always vote for the Coalition (Orr and Levy 2009).

Much of the scholarship on malapportionment has focused on this purposeful malapportionment that is actively created when redistricting, the redrawing of legislative districts. Hayes and McKee (2009) studied the effects of redistricting between the 2002 and 2006 House of Representative elections in the United States. Using voter roll off, when voters vote in a Presidential or Senate race but not in the concurrent House race, they can calculate the effect of redistricting on voter turnout. They find that redistricting increases the information costs of voting, and it becomes harder for voters to get to know the politician that represents them. In Texas, which underwent re-districting three times between 2002 and 2006, Hayes and McKee find that voter roll-off is significantly higher in areas that were redrawn. This purposeful type of malapportionment is a very common tool of exclusionary regimes to affect election outcomes in their favor. Ursula Daxecker (2020) analyzes the role of malapportionment in the distribution of electoral districts in India in violence during election campaigns. Previous research on violence as a campaign strategy shows that greater party competition increases the use of violence. In districts that are malapportioned to be over-represented, incumbents will avoid using violence because incumbents avoid negative coercion where they are strong, preferring to offer clientelism instead. In more populus districts that are under-represented, violence is usually less effective, due to the larger numbers of voters that need to be deterred. Districts that are well-apportioned, or represented in proportion to their population size, are the most likely to see violence because the incumbents are not strong enough that they can rely on clientelism, and the opposition can best use their usually limited strength here. Daxecker uses India to test empirically her hypothesis that overrepresented districts are less likely to experience election violence than well-apportioned or underrepresented districts. She finds that the amount of electoral violence increases the more well-apportioned the district is and that over-represented districts are much less likely to experience electoral violence.

Richard Johnson and Lisa Miller (2023) analyze the impact of the incidental malapportionment inherent in the constitutional design of the United States Senate. Because each state is allocated an equal amount of representation in the Senate, larger states are underrepresented compared to smaller states. Johnson and Miller create a hypothetical senate that redistributes 50 seats by population while keeping the Senate at its current size (100 members). The change in inequality of representation is enormous; the smallest 26 states that currently have more than half of the seats in the Senate (52) lose 26 seats, while middle-sized

states remain largely unaffected. Minority representation is greatly affected as well. Because many of the smaller states have large white majorities, African Americans and Latino Americans are vastly underrepresented. Under the alternative senate that Johnson and Miller constructed, winning senate coalitions must include minority representation. Other than demographic representation, Johnson and Miller study the policy consequences of their alternative senate design. By comparing how key votes perform in the U.S. Senate to their alternative senate, they can isolate the bias of the Senate's current constitutional design. Johnson and Miller conclude that equal representation in the United States Senate contributes to the over-representation of Republican policy preferences and under-representation of Democratic policy preferences.

Scholars have also analyzed the economic impact of malapportionment and found that malapportionment can lead to more government spending for over-represented districts (Ansolabehere, Snyder, and Ting 2003; Imai 2022). There are two causal mechanisms for this: first, that an equal disbursement of government funding per district will result in a more favorable per-capita distribution to underpopulated districts. In bicameral systems, the second chamber usually represents territories unproportionally to their share of the population. This means that given an equal distribution of funds per territory, there will be an unequal distribution per capita. The second causal mechanism is that it will be cheaper to sway the votes of legislators from districts that are less populated (Ansolabehere, Snyder, and Ting 2003). Pork-barrel spending is a common tactic in the United States when building a winning coalition in the Senate. This is where federal funding in the form of legislative earmarks is offered for projects in a senator's state in order to entice them into supporting a bill. Analysis of the per-capita distribution of federal earmarks shows that small states receive a disproportionately large share of federal earmarks (Boyle and Matheson 2009). The resulting economic stimulus and good press for the senator can also help them secure re-election (Klingensmith 2019).

In summary, malapportionment is a key creator of inequality of representation. Scholars who study malapportionment have found that malapportionment can also lead to increases in electoral violence, a reduction in voter turnout, and increases in economic inequality via disproportionate spending. Given the enormous consequences of malapportionment, the next section will examine whether there is a possible link between inequality of representation and social legitimacy in the form of confidence in parliament.

2.4 Inequality of Representation and Confidence in Parliament – A Possible Link?

This thesis will attempt to investigate the link between inequality of representation and the social legitimacy of parliament. As noted, Muller et al. (2023) used attempts at reform to measure legitimacy, a proxy for citizen satisfaction with second chambers. This thesis will attempt to capture social legitimacy in the form of confidence in parliament using survey data. Muller and his co-authors suggest that an ideal measure of output legitimacy would be to directly capture public opinion on the presence of a second chamber, but such data does not exist. Instead, I will use confidence in parliament in general as a proxy.

Prior research on factors that influence confidence in parliament has shown that institutional factors can have a big effect. Kim (2007), for example, studied how well political institutions were able to fulfil the policy preferences of citizens by measuring the confidence that citizens had in parliament and political parties. Because political parties want to win elections and maintain power, they will naturally try to strategically position themselves to attract the median voter. In single-party governments that mostly exist in countries with majoritarian electoral systems, policy agendas will lean towards the largest party's ideological standpoint. In multiparty governments, usually found in countries with proportional electoral systems, a system of bargaining between parties will generate policy. Kim finds that the inclusion of the median party in government, either as the single-party governing party or as a part of a coalition, will have a large impact on the confidence of citizens in parliament. If the median party is excluded, then citizens' confidence in parliament will be negatively affected. Additionally, Kim argues that countries that employ a proportional electoral system will have greater citizen confidence in parliament. This is because proportional systems allocate votes into seats more fairly and are much more likely to cover a larger part of the political spectrum than majoritarian systems.

In addition to electoral systems, inequality of representation shapes the way that votes are translated into seats in democracies; Johnston and Miller (2023) found that the high level of inequality of representation in the American bicameral system gives an advantage to the policy preferences of conservatives over liberals. Thus, it is reasonable to assume that just as changing an electoral system would affect confidence in parliament, so would changes in inequality of representation. Scholars have widely established that legitimacy is an important factor in determining the strength of second chambers (Russell 2013) but have arguably been unable to find a good method to fully measure social legitimacy. This thesis seeks to add to the existing

work by Mueller et al. (2023) and Vercesi (2017) by analyzing the potential link between inequality of representation and citizen confidence in parliament. The next section will lay out some hypotheses about the link between inequality of representation in bicameral systems and citizen confidence in parliament.

3. Theory and Hypotheses

3.1 Hypotheses

One of Kim's (2007) findings is that different electoral systems will variously increase or decrease an individual's confidence in parliament. Kim finds that individuals have higher confidence in parliament when that parliament is elected via a more proportional electoral system. This is because proportional representation seems fairer and includes a wider section of the political spectrum. High levels of inequality of representation will distort how votes are translated into seats in a second chamber, which will make the results seem less fair and include less of the political spectrum. Thus, the hypothesized effect of this is, formulated here, is that individuals will have lower confidence of parliament when inequality of representation increases.
Hypothesis 1: With increasing inequality of representation, individuals will have lower confidence in parliament.

Due to the overrepresentation that most bicameral systems afford to rural areas, I argue that people who live in rural areas are more likely to have confidence in the parliament than their comparatively underrepresented urban counterparts. Bicameral malapportionment also increases the per-capita investment in over-represented rural regions compared to under-represented urban regions. In the United States, an analysis of federal legislative earmarks, often referred to as pork-barrel spending, shows that smaller, more rural states receive a disproportionate amount of federal funds (Boyle and Matheson 2009). Thus, the hypothesized effect of this, formulated here, is that individuals who live in rural areas will have greater confidence in their legislature than individuals who live in urban areas, when inequality of representation increases. Thus, my second hypothesis is:
Hypothesis 2: With increasing inequality of representation, individuals that live in less densely populated areas will have greater confidence in parliament.

One of Vatter's (2005) key findings in his study on the impact of bicameral strength is that conservative and liberal parties are comparatively overrepresented in the second chambers of bicameral systems. Parties of the left and extreme right, especially green parties, are underrepresented in second chambers. Johnson and Miller's (2023) study on the policy bias of the United States Senate found that the equal representation given to states in the Senate's constitutional design leads to an over-representation of conservative senators. Based on this finding, my expectation is that individuals with a right-wing political orientation will have a more positive view of legislative institutions with higher inequality of representation. Thus, my third hypothesis is:
Hypothesis 3: With increasing inequality of representation, individuals with a right-wing political orientation will have greater confidence in parliament.

Another one of Vatter's (2005) key findings is that bicameral systems under-represent women. Vatter attributes this underrepresentation to the systemic overrepresentation of conservative parties that are traditionally male-dominated. However, in a study on women's representation in the Canadian Senate, Erica Rayment and Elizabeth McCallion (2023) found that women may actually be better represented in second chambers, especially those that are appointed or non-partisan. When bills that substantially affected women's issues were proposed to the Canadian Parliament, women in the House of Commons adhered to the party line and voted for the bills, while women in the Senate felt freer to defect and either vote against or amend the bills. However, the majority of bicameral legislatures are indirectly or directly elected rather than appointed, so I predict that women will be underrepresented and, as such, have less confidence in parliament. My expectation is that women will have a less positive view of bicameralism with higher inequality of representation. Thus, my fourth hypothesis:
Hypothesis 4: With increasing inequality of representation, individuals who are female will have less confidence in parliament.

The next section will present an overview of my data and methods, starting with an outline of my planned regression analysis and how I will use weights in my thesis.

4. Data and Methods

To explore the relationship between confidence in parliament and inequality of representation, I have constructed OLS regression models with Inequality of Representation as the main independent variable and Confidence in Parliament as the main dependent variable. The output of these models can be found in the next section. In this section, I will present how cases were selected, and how each variable is measured. Additionally, the discussion will describe what control variables were added and how they are measured.

Weights have been added to account for overrepresented and underrepresented populations in the survey data. The WVS/EVS survey includes two different weighing techniques. The first assigns weights to each respondent to adjust the sample population to the distribution of the target population for key socio-demographic characteristics. The second method equalizes the output of the prior method so that each country can be treated as equal units. For my analysis, I have employed the former method because I think that when making this comparative analysis larger countries that contain more individuals should weigh more. The state of democracy in the United States (the largest country in my selection) is arguably more important to the global health of democracy than that of Bosnia (the smallest country in my selection). Models for each hypothesis with the alternative equilibrated weights provided by the joint dataset are included in the appendix (Tables B4-B6).

4.1 Case Selection

Cases were selected based on multiple criteria and then narrowed based on the availability of data. Countries were selected among the global population of democracies with bicameral legislatures where the second chamber represents territorial interests. Identifying this population was a challenging task, because many second chambers that are elected by territorial units are not designed to necessarily represent those units. By checking the constitutions of all the countries where members of the second chamber are apportioned or elected by territorial units a list of relevant countries was compiled. The Economist's Democracy Index was used to exclude non-democracies. Non democracies were excluded because they do not base their legitimacy on the support of the people in the same manner as democracies. Additionally, since news media and other sources of information are controlled by the state, any data on the popularity of governing institutions would suffer validity issues.

The Democracy Index is an index that seeks to measure democracy using expert surveys to assess a country's level of democracy. The responses are compiled, and the final score is coded as being from 0 to 10, with 0 to 4 representing authoritarian countries, 4.01 to 6 representing hybrid regimes, 6.01 to 8 representing flawed democracies, and 8.01 to 10 representing full democracies (Democracy Index 2023). For the purposes of this paper, countries with Democracy Index values lower than four were excluded. One country that fit all the criteria listed above was excluded due to lack of available data on the apportionment of their second chamber, Morocco. Additionally, four countries were excluded because they were not included in the World Values Survey (WVS)/European Values Survey (EVS): India, Namibia, Nepal, and Belgium. This leaves us with the following 17 countries:

Table 1. Case Selection

Country	Territorial Representation?	Directly Elected?	% Appointed	% Directly Elected	% Indirectly Elected	Upper House Inequality of Representation
Argentina	Yes	Yes	0,0%	100,0%	0,0%	39,82
Australia	Yes	Yes	0,0%	100,0%	0,0%	33,94
Austria	Yes	No	0,0%	0,0%	100,0%	12,19
Bosnia and Herzegovina	Yes	No	0,0%	0,0%	100,0%	8,70
Brazil	Yes	Yes	0,0%	100,0%	0,0%	37,78
Canada	Semi	No	100,0%	0,0%	0,0%	37,36
Germany	Yes	No	0,0%	0,0%	100,0%	26,11
Indonesia	Yes	Yes	0,0%	100,0%	0,0%	40,75
Italy	Yes	Yes	2,9%	97,1%	2,9%	13,96
Kenya	Yes	Semi	30,9%	69,1%	0,0%	25,26
Malaysia	Semi	No	62,8%	0,0%	37,2%	30,47
Mexico	Semi	Yes	0,0%	100,0%	0,0%	29,43
Nigeria	Yes	Yes	0,0%	100,0%	0,0%	18,25
Pakistan	Yes	No	0,0%	0,0%	100,0%	34,86
Spain	Yes	Semi	0,0%	78,5%	21,5%	25,39
Switzerland	Yes	Yes	0,0%	100,0%	0,0%	39,18
United States	Yes	Yes	0,0%	100,0%	0,0%	39,48

Note: Calculations of Upper House Inequality of Representation were done by the author. Data on the percentage of seats directly elected, indirectly elected, and appointed come from the IPU's PARLINE database (IPU, 2016).

4.2 Independent Variable: Upper House Inequality of Representation

To measure the independent variable, inequality of representation, I calculated the vote weight (seat share) of the most favorably represented individuals in each countries second chamber, as shown in Table 2. For countries where the second chamber represents territorial interests, these individuals will usually be the members of the smallest territorial unit. By listing and adding up the population of the smallest territorial units until they add up to ten percent of the population and seeing how many seats in the upper house represent that population, an index of upper house inequality of representation can be created. The index reflects the share of seats in the second chamber that is held by the best represented 10% of the population. This is a very similar approach to the one used by Lijphart, which he describes as:

> "Assume that the smallest and best represented state in a federation has 6 percent of the population and ten of the one hundred seats in the federal chamber, and that the second smallest and second-best represented state has 8 percent of the population and also ten of the one hundred federal chamber seats. Then the best represented 10 percent of the population are the 6 percent in the smallest state plus half of the people in the second smallest state. Together, these 10 percent of the people have 15 percent of the seats in the federal chamber" (Lijphart 2012, 195–96).

However, there are a few countries where the most favorably represented territorial units are not the smallest units by population. This happens when second chamber seats are not evenly distributed between territorial units. To identify the most favorably represented territorial units in this case, the population of a territorial unit is divided by the number of seats apportioned to that unit. Then the territorial units in the table are ordered by this ratio rather than by total population. An example of how the Inequality of Representation index is calculated when all territorial units have an equal number of seats can be found in Table 2 below. All the calculations of the Inequality of Representation index can be found in the appendix with separate tables for each country (Tables A1-A17).

Vatter (2005), uses this inequality of representation measure to measure minority protection under bicameral systems. He hypothesizes that bicameral systems will naturally protect territorial minority interests by focusing on the balance between large and small constituent federal units.

Table 2. Inequality of Representation Calculation Example

South Africa	Population (2017)	Seats in the National Council
Northern Cape	*1 355 946*	*10*
Free State	*2 964 412*	*10*
North West	3 804 548	10
Mpumalanga	5 143 324	10
Limpopo	6 572 720	10
Eastern Cape	7 230 204	10
Western Cape	7 433 019	10
KwaZulu-Natal	12 423 907	10
Gauteng	15 099 422	10
Total	**62 027 502**	**90**
10% of Pop.	6 202 750	
North. Cape + Free State Pop.	4 320 358	20
	1 882 392	
% of North West added	49%	
Number of seats held by 10% best represented population.		24,95
% of total seats held by 10% best represented population. (Inequality of Representation)		27,72%

Note: States in italics add up to less than 10%; All calculations done by author. Data on regional populations comes from the Statistics South Africa (2022), Data on National Council apportionment comes from PARLINE (IPU, 2016).

4.3 Dependent Variable: Confidence in Parliament

To measure the dependent variable, Confidence in Parliament, survey data from the World Values Survey and European Values Survey will be used. The latest round of each survey, conducted between 2017 and 2022 asked 153,716 respondents in 90 countries about political attitudes and relevant for my thesis, their confidence in multiple institutions, including parliament (EVS/WVS 2022). The two datasets were merged under a co-operation agreement between the conducting organizations. For the World Values Survey, interviewers listed several institutions/organizations, including parliament, and asked respondents to answer how much confidence they had in each. Responses were coded as 1-4, with 1 meaning “A great deal”, 2 meaning "Quite a lot”, 3

meaning "Not very much", and 4 meaning "None at all." In the European Values Survey, respondents were asked to look at a card and respond, "how much confidence you have in them, is it a great deal, quite a lot, not very much or none at all?" Answers were also coded 1-4, with "a great deal" being coded as 1, and "none at all" being coded as 4. In both surveys, if the respondent did not answer, did not know their answer, or if an answer is missing, then that was coded as -2, -1, or -5 respectively. To prevent these numeric categorizations from influencing my results, these responses were dropped (828 responses dropped). For reasons of legibility, confidence was recoded so that 4 is the value for the highest level of confidence and 1 is the value for the lowest level of confidence.

Table 3. Independent and Dependent Variable

Variable	Number of Observations	Missing Values	Mean	Standard Deviation	Min	Max
Inequality of Representation	17	0	30.41	9.95	8.70	40.75
Confidence in Parliament	34,842	828	2.785	0.856	1 (None at All)	4 (A Great Deal)

4.4 Interaction Variables

Settlement Size

To test my second hypothesis, that individuals who live in rural areas will have higher confidence in parliament when the inequality of representation increases, I will also use data contained in the WVS/EVS dataset. To make the joint dataset, most variables related to the population size of where respondents lived were dropped by the WVS/EVS team, because the questions related to settlement size were not asked in the EVS. Therefore, the best measure included in the joint dataset is a five-category variable called "size of town where interview was conducted (5 categories)". The five categories are "5,000 or fewer; 5,000–20,000, 20,000-100,000, 100,000-500,000, 500,000 or more". Like the variable on confidence in parliament, if the respondent did not answer, did not know their answer, or if an answer is missing, then that was coded as -2, -1, or -5 respectively. These responses were similarly recoded as missing (1,127 responses dropped). In order to conduct the analysis, the variable was recoded into two

dichotomous variables indicating whether the respondent was interviewed in a rural area or an urban area. In the first variable, settlements with a population under 5,000 were coded as rural (0) and populations over 5,000 as urban (1). In the second variable, settlements with a population of under 5,000 and a population between 5,000 and 20,000 were categorized as rural. The main caveat of this variable is that while the town where the interview was conducted is probably close to where the respondent lives, it may not be the exact place where respondents live. Regardless, this measure is very likely to be a good proxy for urban and rural residency. The narrow coding of rural as being settlements with less than 5,000 people reduces the likelihood of any validity problems, as there is usually a gradient of population size between settlements. An analysis that uses the looser definition of rural (less than 20,000) can be found in Table B10 in the appendix.

Political Orientation

To test my third hypothesis, that individuals with a right-wing political orientation will have greater confidence in parliament when the inequality of representation increases, I will use a variable in the WVS/EVS dataset that asks respondents to place themselves on the political spectrum. In both the WVS and EVS surveys, respondents were asked "In political matters, people talk of 'the left' and 'the right'. How would you place your views on this scale, generally speaking?" The scale was coded 1 as being the most left-wing option and 10 as the most right-wing option. Respondents were also given the option to not answer or to answer that they didn't know. As with other variables from the WVS/EVS joint dataset, these missing or unclear answers are recoded as missing so that they don't interfere with later analysis (5,701 responses dropped). The comparatively large number of missing values is because the question was not asked in Pakistan, so all responses recorded from Pakistan are dropped. Responses were recoded into a dichotomous variable where 0 represents left wing political opinions (values 1 to 5 in the original variable) and 1 represents right wing political opinions (values 6 to 10 in the original variable).

Sex

To test my fourth hypothesis, that with increasing inequality of representation, individuals who are female will have less confidence in parliament, the WVS/EVS joint dataset includes a variable describing the sex of the respondent. In the EVS, respondents were asked what their sex was, 1 being coded as male and 2 being coded as female. However, in the WVS, the interviewer

would code the respondents' sex by observation and was explicitly told not to ask. As with the other variables, responses other than male or female were coded as a numeric value and were recoded here as missing to not interfere with later analysis (25 responses dropped). For better interpretability, Sex was recoded so that 0 is coded as male and 1 is coded as female.

Table 4. Variables to be Interacted with Inequality of Representation

Variable	Number of Observations	Missing Values	Mean	Standard Deviation	Min	Max
Settlement Size	35,670	1,127	0.750	0.432	0 (Rural, Fewer than 5,000)	1 (Urban, Greater than 5,000)
Political Orientation	29,969	5,701	0.419	0.493	0 (Left-Wing)	1 (Right-Wing)
Sex	35,645	25	1.516	0.499	0 (Male)	1 (Female)

4.5 Control Variables

In addition to the control variables listed below, in Models 3, 4, and 5 of the regression tables that follow, the variables used in the interaction analysis are also used as controls. In Model 3, these controls are introduced on the individual-level only, in Models 4 and 5 they are also introduced on the interaction level.

Government Ideology

To test my third hypothesis, a new control variable must be introduced, measuring whether the incumbent government's ideological orientation aligns with the ideological orientation of the respondent. This control is important because the direction of the government is an important factor behind approval of a government institution. For example, in the United States, when the Republican party captured the Presidency in 2016, approval of presidential job performance amongst Democratic-identifying voters dropped 75 percentage points from 80% to just 6%. At the same time, Republican-identifying voters gained 70 percentage points of approval (Dunn n.d.). Additionally, when governments create malapportionment, they will often create districts with higher or lower proportions of people who support them, so aligning with the government's politics may influence Upper House Inequality of Representation as well.

To measure this phenomenon, I will manually code each country for the ideological direction of the government at the time that the EVS/WVS survey was taken in that country. To measure the ideological direction of the government, I used CIA World Factbook data for the year in question to identify who the head of government during the period was when the survey was taken (CIA 2018). If an election was held during the year in question, then I used the ideological direction of the head of government for the most time (more than half of the year). I coded the government's ideological direction as a dichotomous variable where 0 meant that the country had a left-wing government and 1 a right-wing government. This variable was compared to the self-identified political ideology of the respondents to create a dichotomous variable where 1 means that the respondent has the same ideological direction as the government and 0 means that the respondent has the opposite ideological direction as the government.

Age

Age is a factor that can affect the political ideology and confidence of individuals in political institutions. Political scientists have long established the role of age in determining the political ideology and behavior of people (Smets 2021). An analysis of rural aging in the United States shows that there is a substantial level of internal migration in rural areas that is caused by aging (Nelson 2013). This internal migration can cause some territorial units to become malapportioned over time, increasing inequality of representation. In the WVS/EVS joint dataset, respondents were asked for their birth-year and age. Respondent's ages are coded in the dataset in three ways, first as a continuous variable that just records the respondent's age, second as a categorical variable that divides age into six groups: "15-24", "25-34", "35-44", "45-54", "55-64", and "65 and more years", and as another categorical variable with three groups, "15-29", "30-49", and "50 and more years." For clarity and legibility of results, the continuous variable for age was chosen to represent the age of the respondents (Readers interested in an analysis that breaks down age into the six groups identified above can find the results in the appendix in Figures B1-B3).

Table 5. Control Variables

Variable	Number of Observations	Missing Values	Mean	Standard Deviation	Min	Max
Government Ideology	29,969	5,701	0.468	0.499	0 (Different Ideological Direction)	1 (Same Ideological Direction)
Age	35,589	81	3.490	1.6421	1 (15-24)	6 (65 and older)

Next, I will present the results of my regressions with tables of the outcomes and explanations of what each table represents. Then I will interpret the results in light of the expectations and hypotheses that I presented in Section 3.

5. Analysis and Results

In this section I will present the results of my regressions analysis. The first section analyzes my first two hypotheses. Recall that hypothesis 1 proposes that *with increasing inequality of representation, individuals will have lower confidence in parliament* and Hypothesis 2 suggests that *with increasing inequality of representation, individuals that live in less densely populated areas will have greater confidence in parliament.*

These results were subjected to several robustness checks. First, the same OLS-regression method but using equilibrated weights instead of the standard population weights that were used in the models presented in the main section of the paper. Second, a random effects regression analysis was implemented to ascertain if stress on the model is causing a lack of statistical significance. Third, a regression analysis with the Age variable split into six different categories to analyze the link between different age groups and confidence in parliament given increases in inequality of representation. Finally, a regression analysis with a looser definition of what is considered rural to analyze whether my narrow definition of what is considered rural was constraining the results. The results were robust to these alternative model specifications (see Tables B1-B3 for the robustness check using age as a categorical variable, Tables B4-B7 for the

robustness check using equilibrated weights, Tables B8-B9 for the robustness check using a random regressions analysis, and Table B10 for the results using the looser definition of rural).

5.1 Hypothesis 1 and 2: Inequality of Representation, Rural Residency, and Confidence in Parliament

In Table 6, Model 1 presents the results of a simple bivariate regression between my two key variables, Confidence in Parliament, and Upper House Inequality of Representation. The regression co-efficient of 0.01 indicates a very weak, but statistically significant positive link ($p < 0.01$) between Inequality of Representation and Confidence in Parliament. This means that if there were to be a one-percent increase in the share of seats allocated to the 10% most favorably represented territories (Inequality of Representation), then we would see a very slight increase in the expected confidence in parliament in the average respondent.

In Model 2, when a dichotomous variable is introduced reflecting whether the respondent lives in a rural area, the regression coefficient of Upper House Inequality of Representation increases to 0.02 and remains statistically significant ($p < 0.01$). The relationship between the interaction variable Rural Residency * Inequality of Representation on one hand and Confidence in Parliament on the other is negative, suggesting that the link between Inequality of Representation and Confidence in Parliament might be conditioned on whether an individual lives in a rural or urban area, an effect that continues through Models 3 and 4 ($p < 0.05$). On average, respondents living in rural areas have greater confidence in parliament than those living in urban areas, as shown by the regression coefficient, 0.27 on a scale running from 1 to 4. This association is about 31% of a standard deviation and it is statistically significant ($p < 0.01$).

Table 6. Hypothesis 1 and 2 Results

	Model 1	Model 2	Model 3	Model 4	Model 5
Upper House Inequality of Representation	0.01***	0.02***	0.02**	0.01	-0.18***
	(0.00)	(0.00)	(0.01)	(0.01)	(0.03)
Rural Residency (Yes)		0.27***	0.33**	0.31*	0.01
		(0.03)	(0.15)	(0.15)	(0.07)
Rural Residency * Upper House Inequality of Representation		-0.01***	-0.01**	-0.01**	-0.00
		(0.00)	(0.01)	(0.01)	(0.00)
Sex (Female)			0.02	0.02	0.02
			(0.02)	(0.04)	(0.04)

Age			0.02*	0.03*	0.03
			(0.01)	(0.02)	(0.02)
Political Ideology (Right)			0.08**	0.07	0.13
			(0.04)	(0.10)	(0.10)
Government Ideological Alignment (Yes)			0.02	-0.29**	-0.10
			(0.05)	(0.10)	(0.10)
Constant	2.00***	1.82***	1.72***	1.83***	9.01***
	(0.02)	(0.03)	(0.20)	(0.20)	(1.17)
Interaction-Level Controls	No	No	No	Yes	Yes
Country FEs	No	No	No	No	Yes
R2	0.0064	0.014	0.016	0.018	0.13
Observations	34842	34842	29560	29560	29560

Standard errors in parentheses; Standard errors are clustered by country.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

In Model 3, when controls at the individual level (sex, political ideology, etc.) are introduced, the coefficients of the two key variables of interest – Upper House Inequality of Representation and Rural Residency * Upper House Inequality of Representation – remain unchanged, but the significance level has decreased. As for the control variables, the regression co-efficient of Rural Residency is 0.33 on a scale running from 1 to 4 ($p < 0.05$). This means that going from living in an urban area to living in a rural area would increase the average respondent's confidence in parliament. Two other control variables show results that are statistically significant: a weak link between Political Ideology and Confidence in Parliament of 0.08 ($p < 0.05$), and a weak link between Age and Confidence in Parliament with a regression coefficient of 0.02, but this is not statistically significant to conventional levels ($p < 0.10$).

With the introduction of interaction-level controls in Model 4, the regression coefficient of Upper House Inequality of Representation is reduced to 0.01 and loses its statistical significance. The interaction between Rural Residency and Inequality of Representation continues to show a statistically significant and negative (-0.01) result, indicating that living in a rural area would decrease a respondent's confidence in parliament given an increase in inequality of representation ($p < 0.05$). The Rural Residency variable continues to show the same pattern as Models 2 and 3, that going from living in an urban area to living in a rural area would increase an individual's expected confidence in parliament by 0.31 on the scale of confidence that runs from 1 to 4. But it is important to note that this effect is not statistically significant at conventional levels ($p < 0.05$).

Finally, in Model 5, with the introduction of country fixed effects and interaction-level controls, the regression coefficient of Upper House Inequality of Representation is -0.18, on the 1 to 4 scale of confidence in parliament (21% of a standard deviation), reflecting that a one-percent increase in Inequality of Representation is associated with a small decrease in Confidence in Parliament ($p < 0.01$). This is in line with my expectation that an increase in Inequality of Representation would decrease the average individual's Confidence in Parliament. However, introducing country fixed effects, and thereby accounting for any unobserved country characteristics that could explain the previously observed effects, also negates any links between the interaction variable, Rural Residency * Inequality of Representation and Confidence in Parliament.

Results

In sum, these results support Hypothesis 1, but suggest that Hypothesis 2 should be rejected. In Hypothesis 1, I proposed that an increase in Upper House Inequality of Representation would lead to a decrease in an individual's Confidence in Parliament. The outcome of the final model, Model 5, grants support to this hypothesis. The change in direction and size from previous models (1-4) reflects that country-specific factors were suppressing the negative link between Upper House Inequality of Representation and Confidence in Parliament.

In Hypothesis 2, I predicted that individuals who lived in rural areas would have a higher level of Confidence in Parliament given an increase in Inequality of Representation. While the outcomes of Models 2-4 seem to support this, the introduction of country-level fixed effects in Model 5 negates any link between the interaction variable Rural Residency * Inequality of Representation and Confidence in Parliament, indicating that the outcomes of previous models might just be an effect of variation between countries. One possible explanation for the lack of statistical significance between the interaction variable Rural Residency * Inequality of Representation and Confidence in Parliament when country-level fixed effects were added could be the limited number of countries analyzed here. Future research using similar variables can hopefully be based on a larger sample, by extending the analysis over time.

In Hypothesis 1, my initial expectation that individuals would have a lower level of confidence in parliament was based on Kim's (2007) finding that institutions that do not proportionally represent the political spectrum have lower levels of confidence from citizens. Given Vatter's (2005) and Johnson and Miller's (2023) finding that second chambers with high

levels of inequality of representation overrepresent the right-wing of the political spectrum, it is reasonable to expect that individuals might have lower confidence in legislative institutions that distort their policy preferences. My result goes along with these expectations, that this hypothesis can be supported.

In Hypothesis 2, my initial expectation that individuals who lived in rural areas would have a higher level of confidence in parliament was based on Vatter's (2005) finding that rural areas are overrepresented in the membership of second chambers. In addition to this, Boyle and Matheson (2009) found that the overrepresentation of smaller, rural states in the United States meant that these states received a disproportionately large share of federal funding. Thus, it was reasonable to expect that individuals who live in rural areas might have greater confidence in parliament. This makes my result, that this hypothesis cannot be substantiated somewhat surprising.

5.2 Hypothesis 3: Political Ideology, Inequality of Representation and Confidence in Parliament

Recall that Hypothesis 3 proposes that *with increasing inequality of representation, individuals with a right-wing political orientation will have greater confidence in parliament.* In Table 7, Model 1 again shows the results of the simple bivariate regression between my two key variables, Confidence in Parliament, and Upper House Inequality of Representation. In Model 2, The relationship between the interaction variable of Political Ideology * Inequality of Representation and Confidence in Parliament is negligible, suggesting that the link between Confidence in Parliament and Inequality of Representation is not conditioned on an individual's political ideology, a pattern that continues through Models 3 and 4 ($p > 0.10$). Controlling for whether if the respondent identifies as being on the Right-Wing of the Political Spectrum, the regression coefficient of Upper House Inequality of Representation is 0.01, which is statistically significant ($p < 0.01$). On average, of the control variables, respondents who identify as right wing have greater Confidence in Parliament than those who identify as left wing, as demonstrated by the regression coefficient of 0.06 on a scale running from 1 to 4. This is a rather weak association, and it is not statistically significant to conventional levels ($p < 0.10$).

Table 7. Hypothesis 3 Results

	Model 1	Model 2	Model 3	Model 4	Model 5
Upper House Inequality of Representation	0.01***	0.01***	0.01	0.01	-0.18***
	(0.00)	(0.00)	(0.01)	(0.01)	(0.03)
Political Ideology (Right)		0.06*	0.05	0.07	0.13
		(0.04)	(0.15)	(0.10)	(0.08)
Political Ideology (Right) * Upper House Inequality of Representation		0.00	0.00	0.00	-0.00
		(0.00)	(0.00)	(0.00)	(0.00)
Government Ideological Alignment (Yes)			0.02	-0.29**	-0.10
			(0.05)	(0.12)	(0.08)
Sex (Female)			0.02	0.01	0.02
			(0.02)	(0.04)	(0.04)
Age			0.02	0.03*	0.02
			(0.01)	(0.02)	(0.02)
Rural Residency (Yes)			-0.07	0.31*	0.01
			(0.07)	(0.15)	(0.07)
Constant	2.00***	2.02***	1.99***	1.83***	9.01***
	(0.02)	(0.02)	(0.27)	(0.20)	(1.13)
Interaction-Level Controls	No	No	No	Yes	Yes
Country FEs	No	No	No	No	Yes
R2	0.0066	0.0076	0.010	0.020	0.13
Observations	34842	29602	29560	29560	29560

Note: Standard errors in parentheses; Standard errors are clustered by country. Models 1, 4, and 5 have the same outcome as in the previous hypothesis.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

In Model 3, when controls at the individual level (sex, rural residency, government ideological alignment, etc.) are introduced, neither the coefficient of Upper House Inequality of Representation and the coefficient of the interaction variable Political Ideology * Upper House Inequality of Representation are statistically significant. Of the control variables, the regression co-efficient of Political Ideology is 0.05 on the confidence scale 1 to 4, but this result is not statistically significant ($p > 0.10$). None of the other variables show results that are statistically significant. The measure for Government Ideological Alignment shows a slightly positive link between alignment and Confidence in Parliament of 0.02 ($p > 0.10$).

With the introduction of interaction-level controls in Model 4, the analysis continues to show the same pattern, a very weak association between Upper House Inequality of Representation and Confidence in Parliament which is not statistically significant ($p > 0.10$). Finally, in Model 5, with country fixed effects and interaction-level controls, the regression coefficient of Political Ideology is 0.13, reflecting that a one-percent increase in Inequality of

Representation is linked to an increase in Confidence in Parliament if the respondent identifies as right wing. However, this result is not statistically significant ($p > 0.10$).

Results

In summary, these results suggest that Hypothesis 3 should be rejected: Hypothesis 3 suggested that individuals who identify as being on the right wing of the political spectrum would have a higher level of Confidence in Parliament given an increase in Inequality of Representation. None of the models presented here indicate that there is an association between the interaction variable Political Ideology (Right) * Upper House Inequality of Representation and Confidence in Parliament. Therefore, it cannot be substantiated that a relationship exists between an individual's ideological opinion and their confidence in parliament, given changes in inequality of representation, but data limitations may hide the true nature of this relationship.

My initial expectation that individuals with right-wing political opinions would have a higher level of confidence in parliament was based on Vatter's (2005) and Johnson and Miller's (2023) finding that parties of the right are overrepresented in the membership of second chambers. Thus, it was reasonable to expect that individuals with right-wing political opinions might have greater confidence in parliaments that represent them better. This makes my result, that this hypothesis cannot be substantiated somewhat surprising.

5.3 Hypothesis 4: Sex, Inequality of Representation and Confidence in Parliament

Recall that Hypothesis 4 suggests that *with increasing inequality of representation, individuals who are female will have less confidence in parliament.* In Table 8, Model 1 again shows the results of the simple bivariate regression between my two key variables, Confidence in Parliament, and Upper House Inequality of Representation.

In Model 2, the relationship between the interaction variable Sex * Inequality of Representation and Confidence in Parliament is negligible, indicating that the link between confidence in parliament and inequality of representation is not conditioned on an individual's sex. This pattern continues through Models 3 and 4 ($p > 0.10$). On average, turning to my control variables, for respondents who identify as female, the regression coefficient of Upper House Inequality of Representation is 0.01, which is statistically significant ($p < 0.01$). On average, respondents who are Female have greater Confidence in Parliament than their Male counterparts,

as shown by the regression coefficient, 0.02 on a scale running from 1 to 4. This is a very weak association, and it is not statistically significant ($p < 0.10$).

Table 8. Hypothesis 4 Results

	Model 1	Model 2	Model 3	Model 4	Model 5
Upper House Inequality of Representation	0.01***	0.01***	0.01	0.01	-0.18***
	(0.00)	(0.00)	(0.01)	(0.01)	(0.03)
Sex (Female)		0.02	0.02	0.01	0.02
		(0.03)	(0.04)	(0.04)	(0.04)
Sex (Female) * Upper House Inequality of Representation		-0.00	0.00	0.00	0.00
		(0.00)	(0.00)	(0.00)	(0.00)
Age			0.00*	0.03*	0.02
			(0.00)	(0.02)	(0.02)
Rural Residency (Yes)			-0.08	0.31*	0.01
			(0.07)	(0.15)	(0.07)
Political Ideology (Right)			0.09*	0.07	0.13
			(0.04)	(0.10)	(0.08)
Government Ideological Alignment (Yes)			0.02	-0.29**	-0.10
			(0.05)	(0.10)	(0.08)
Constant	2.00***	1.99***	1.95***	1.83***	9.01***
	(0.02)	(0.02)	(0.24)	(0.20)	(1.13)
Interaction-Level Controls	No	No	No	Yes	Yes
Country FEs	No	No	No	No	Yes
R2	0.0066	0.0066	0.011	0.020	0.13
Observations	34842	34822	29560	29560	29560

Note: Standard errors in parentheses; Standard errors are clustered by country. Models 1, 4, and 5 have the same outcome as in the previous hypothesis.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

In Model 3, when controls at the individual level (sex, rural residency, government ideological alignment, etc.) are introduced, the coefficient of Upper House Inequality of Representation and is not statistically significant and neither is the coefficient of the interaction variable Political Ideology * Upper House Inequality of Representation. Turning to the controls, the regression co-efficient of being Female is 0.02 on the confidence scale running from 1 to 4, this result is not statistically significant ($p > 0.10$). The only control variables that show statistical significance, although not at conventional levels ($p < 0.10$) are age, with a coefficient of less than 0.00, and political ideology with a coefficient of 0.09.

With the introduction of interaction-level controls in Model 4, the analysis continues to show a very weak association between Upper House Inequality of Representation and Confidence in Parliament but like in Model 3, this is not statistically significant ($p > 0.10$). For

respondents that are Female, a one-percent increase in Inequality of Representation would increase their Confidence in Parliament by 0.01, however this is not statistically significant ($p > 0.10$). Finally, in Model 5, with country fixed effects and interaction-level controls, the regression coefficient of Self-Identified Political Ideology is 0.02 (on the 1-4 scale), reflecting that a one-percent increase in Inequality of Representation is linked to a very small increase in Confidence in Parliament if the respondent is Female. However, this result is not statistically significant ($p > 0.10$).

Results

Overall, these results suggest that Hypothesis 4 should be rejected: Hypothesis 4 proposed that individuals who are Female would have a lower level of Confidence in Parliament given an increase in Inequality of Representation. None of the models presented here indicate that there is an association between the interaction variable Sex (Female) * Upper House Inequality of Representation and Confidence in Parliament. Therefore, it cannot be substantiated that a relationship exists between an individual's sex and their confidence in parliament, given changes in inequality of representation, but data limitations may hide the true nature of this relationship.

My initial expectation that women would have a lower level of confidence in parliament was based on Vatter's (2005) finding that women are underrepresented in the membership of second chambers. This makes my result, that this hypothesis cannot be substantiated somewhat surprising. While Rayment and McCallion's (2023) research suggested that women who are members of second chambers may feel freer to express their opinions on women's issues, their study applied only to appointed second chambers, when most of the world's second chambers are indirectly or directly elected.

6. Conclusion

With about 40% of the world's countries and nearly two-thirds of the world's democracies being bicameral, we must study what dynamics affect the behavior and impact of bicameral systems. This thesis strove to measure how the social legitimacy of second chambers in bicameral systems is affected by the institutional malapportionment that is often a constitutional fixture of those systems. It aimed to do that using various individual factors that might influence how an individual reacts to increases in inequality of representation.

While increases in inequality of representation are shown to be linked to a decrease in an individual's confidence in parliament, an analysis of the various individual-level factors presented in this thesis gives unclear results. While rural residency seems to have some kind of relationship with confidence in parliament given increases in inequality of representation, the lack of statistical significance when introducing country- level fixed effects makes it difficult to judge the nature of this relationship. Similarly with hypotheses about interaction effects between inequality of representation and sex and political orientation, a lack of statistical significance makes definitively understanding the nature of this relationship difficult and suggests that we should reject the hypothesis for now.

Given this lack of statistical significance for my hypotheses that deal with individual factors, the inclusion of more countries and more data could shed light on the true nature of these possible relationships. The WVS/EVS dataset was a valuable asset in collecting data for this analysis, but many bicameral countries are not included in the dataset. This lack of data forced multiple countries to be dropped from the analysis. Future WVS/EVS waves may include new countries that can be used to extend the scope of this study. Using similar data, a time series analysis could be used to increase the number of observations.

This thesis contributes new insight on how to better capture the legitimacy of second chambers in bicameral systems. It also shows that increases in inequality of representation are linked to a decrease in an individual's confidence in parliament. This result may have important policy implications, if bicameral institutions are to survive, then they need to appear as being as legitimate as possible. Policymakers and constitution writers alike can take the results of this thesis and design bicameral chambers such that they limit the level of inequality of representation. Perhaps a more proportional allocation of seats such as in Germany or Austria would go a long way to ensuring bicameral survival. These results may also have implications on democracy in general, as democracy is more sustainable when it does not have to rely on illegitimate institutions. Many questions and aspects of legitimacy remain unanswered. Future works can narrow this gap and add to the conclusions of this study by measuring the other aspects of legitimacy, or finding new data to widen the number of countries that can be studied.

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A. Calculation of the Inequality of Representation Index

The following tables represent the calculation of upper house inequality of index for all the countries included in the analysis. For a detailed description of how this was calculated please see Section 4.2 on page 20 in the main text of the thesis.

Table A1. Argentina

Argentina	2023	Senate
Tierra del Fuego	*190,641*	*3*
Santa Cruz	*333,473*	*3*
La Pampa	*366,022*	*3*
La Rioja	*384,607*	*3*
Catamarca	*429,556*	*3*
San Luis	*540,905*	*3*
Chubut	*603,120*	*3*
Formosa	*606,041*	*3*
Neuquén	*726,590*	*3*
Río Negro	762,067	3
Jujuy	797,955	3
San Juan	818,234	3
Santiago del Estero	1,054,028	3
Chaco	1,142,963	3
Corrientes	1,197,553	3
Misiones	1,280,960	3
Entre Ríos	1,426,426	3
Salta	1,440,672	3
Tucumán	1,703,186	3
Mendoza	2,014,533	3
Buenos Aires City	3,120,612	3
Santa Fe	3,556,522	3
Córdoba	3,978,984	3
Buenos Aires	17,569,053	3
Total Population	46,044,703	72
10% of Total	4,604,470	
States Adding up to closest 10%	4,180,955	27
Population that needs to be added	423,515	
% of next state to be added	55.5%	
Total Seats held by most favorably represented 10%		28.67
% of Total Seats (UHIOR)		39.82%

Note: States in italics add up to less than 10%; All calculations done by the author. Data on regional populations comes from the National Institute of Statistics and Census (2023), Data on Senate apportionment comes from PARLINE (IPU, 2016).

Table A2. Australia

Australia	Population (2018)	Pop / Seats	Senate
Tasmania	*542 927*	*45 244*	*12*
Northern Territory	*245 920*	*122 960*	*2*
South Australia	1 755 715	146 310	12
ACT	430 758	215 379	2
Western Australia	2 636 404	219 700	12
Queensland	5 046 434	420 536	12
Victoria	6 479 695	539 975	12
New South Wales	8 003 564	666 964	12
Total Population	25 141 417		76
10% of Total	2 514 142		
States Adding up to closest 10%	788 847		14
Population that needs to be added	1 725 295		
% of next state to be added	0,982673555		
Total Seats held by most favorably represented 10%			25,79
% of Total Seats (UHIOR)			33,94%

Note: States in italics add up to less than 10%; All calculations done by the author. Data on regional populations comes from Australian Bureau of Statistics (2023), Data on Senate apportionment comes from PARLINE (IPU, 2016).

Table A3. Austria

Austria	Population (2018)	Pop / Seats	Federal Council
Burgenland	*292,675*	97,558	*3*
Vorarlberg	*391,741*	130,580	*3*
Styria	1,240,214	140,578	9
Salzburg	552,579	142,087	4
Lower Austria	1,670,668	143,198	12
Carinthia	560,898	142,246	4
Upper Austria	1,473,576	152,283	10
Tyrol	751,140	154,261	5
Vienna	1,888,776	180,191	11
Total Population	8,822,267		61
10% of Total	882,227		
States Adding up to closest 10%	684,416		6
Population that needs to be added			
% of next state to be added	15.9%		7.44
% of Total Seats (UHIOR)			12.19%

Note: States in italics add up to less than 10%; All calculations done by the author. Data on regional populations comes from Statistics Austria (2023), Data on Federal Council apportionment comes from PARLINE (IPU, 2016).

Table A4. Bosnia and Herzegovina

Bosnia	Population (2019)	Pop / Seats	Seats in the House of Peoples
Republika Srpska	*1,142,495*	*228,499*	*5*
Fed. of Bosnia	2,190,098	219,010	10
Total	3,332,593		15
10% of Pop.	333,259		
States Adding up to closest 10%	1 142 495		5
Population that needs to be added	-809 236		
% of next state to be added	-36%		1.31
% of Total Seats (UHIOR)			8.70%

Note: States in italics add up to less than 10%; All calculations done by the author. Data on regional populations comes from the Federalni Zavod za Staistiku (2019) and Republic of Srpska Institute of Statistics (2023), Data on House of Peoples apportionment comes from PARLINE (IPU, 2016).

Table A5. Brazil

Brazil	Population (2018)	Senate
Roraima	*576,568*	*3*
Amapá	*829,494*	*3*
Acre	*869,265*	*3*
Tocantins	*1,555,229*	*3*
Rondônia	*1,757,589*	*3*
Sergipe	*2,278,308*	*3*
Mato Grosso do Sul	*2,748,023*	*3*
Distrito Federal	*2,974,703*	*3*
Piauí	*3,264,531*	*3*
Alagoas	*3,322,820*	*3*
Mato Grosso	3,441,998	3
Rio Grande do Norte	3,479,010	3
Paraíba	3,996,496	3
Amazonas	4,080,611	3
Espírito Santo	4,108,508	3
Goiás	6,921,161	3
Maranhão	7,036,055	3
Santa Catarina	7,075,494	3
Pará	8,513,497	3
Ceará	9,075,649	3
Pernambuco	9,496,294	3
Rio Grande do Sul	11,329,605	3
Paraná	11,348,937	3
Bahia	14,812,617	3

Rio de Janeiro	17,159,960	3
Minas Gerais	21,040,662	3
São Paulo	45,538,936	3
Total	208,632,020	81
10% of Pop.	20,863,202	
	20,176,530	30
	686,672	
	0.199498082	
		30.60
% of Total Seats (UHIOR)		37.78%

Note: States in italics add up to less than 10%; All calculations done by the author. Data on regional populations comes from the Brazilian Institute of Geography and Statistics (2018), Data on Senate apportionment comes from PARLINE (IPU, 2016).

Table A6. Canada

Canada	Population (2020)	Pop/Seat	Senate
Nunavut	*39,581*	*39,581*	*1*
Prince Edward Island	*159,179*	*39,795*	*4*
Yukon	*42,109*	*42,109*	*1*
Northwest Territories	*44,395*	*44,395*	*1*
New Brunswick	*783,814*	*78,381*	*10*
Newfoundland and Labrador	*526,046*	*87,674*	*6*
Nova Scotia	*989,154*	*98,915*	*10*
Saskatchewan	*1,165,963*	*194,327*	*6*
Manitoba	1,381,809	230,302	6
Quebec	8,551,865	356,328	24
Ontario	14,757,582	614,899	24
Alberta	4,412,013	735,336	6
British Columbia	5,173,896	862,316	6
Total	38,027,406		105
10% of Pop.	3,802,741		
	3,750,241		39
	52,500		
	0.037993384		
			39.23
% of Total Seats (UHIOR)			37.36%

Note: States in italics add up to less than 10%; All calculations done by the author. Data on regional populations comes from Statistics Canada (2022). Data on Senate Apportionment comes from PARLINE (IPU, 2016).

Table A7. Germany

Germany	Population (2018)	Pop/Seat	Bundesrat
Bremen	681,032	227,011	3
Saarland	994,187	331,396	3
Mecklenburg	1,611,119	537,040	3
Thuringia	2,151,205	537,801	4
Saxony-Anhalt	2,223,081	555,770	4
Hamburg	1,830,584	610,195	3
Brandenburg	2,504,040	626,010	4
Schleswig-Holstein	2,889,821	722,455	4
Berlin	3,613,495	903,374	4
Rhineland-Palatinate	4,073,679	1,018,420	4
Saxony	4,081,308	1,020,327	4
Hesse	6,243,262	1,248,652	5
Lower Saxony	7,962,775	1,327,129	6
Baden-Württemberg	11,023,425	1,837,238	6
Bavaria	12,997,204	2,166,201	6
North Rhine Westphalia	17,912,134	2,985,356	6
Total	82,792,351		69
10% of Pop.	8,279,235		
	7,660,624		17
	618,611		
	0.3379		
			18.01
% of Total Seats (UHIOR)			26.11%

Note: States in italics add up to less than 10%; All calculations done by the author. Data on regional populations comes from Eurostat (2023). Data on Bundesrat Apportionment comes from PARLINE (IPU, 2016).

Table A8. Indonesia

Indonesia	Population (2020)	Regional Representative Council
North Kalimantan	*701,814*	*4*
West Papua	*1,134,068*	*4*
Gorontalo	*1,171,681*	*4*
North Maluku	*1,282,937*	*4*
West Sulawesi	*1,419,229*	*4*
Bangka Belitung	*1,455,678*	*4*
Maluku	*1,848,923*	*4*
Bengkulu	*2,010,670*	*4*
Riau Islands	*2,064,564*	*4*
North Sulawesi	*2,621,923*	*4*
Southeast Sulawesi	*2,624,875*	*4*
Central Kalimantan	*2,669,969*	*4*
Central Sulawesi	*2,985,734*	*4*
Jambi	3,548,228	4

Special Region of Yogyakarta	3,668,719	4
East Kalimantan	3,766,039	4
South Kalimantan	4,073,584	4
Papua	4,303,707	4
Bali	4,317,404	4
Aceh	5,274,871	4
West Nusa Tenggara	5,320,092	4
East Nusa Tenggara	5,325,566	4
West Kalimantan	5,414,390	4
West Sumatra	5,534,472	4
Riau	6,394,087	4
South Sumatra	8,467,432	4
Lampung	9,007,848	4
South Sulawesi	9,073,509	4
Jakarta	10,562,088	4
Banten	11,904,562	4
North Sumatra	14,799,361	4
Central Java	36,516,035	4
East Java	40,665,696	4
West Java	48,274,162	4
Total	270,203,917	136
10% of Pop.	27,020,392	
	23,992,065	52
	3,028,327	
	0.853475791	
		55.41
% of Total Seats (UHIOR)		40.75%

Note: States in italics add up to less than 10%; All calculations done by the author. Data on regional populations comes from Badan Pusat Statistik. (2021). Data on Regional Representative Council Apportionment comes from (Harijanti and Lindsey 2006).

Table A9. Italy

Italy	Population (2018)	Pop / seats	Senate
Basilicata	*567 118*	*81 017*	*7*
Aosta Valley	*126 202*	*126 202*	*1*
Umbria	*884 640*	*126 377*	*7*
Trentino-Alto Adige	*1 067 648*	*152 521*	*7*
Molise	*308 493*	*154 247*	*2*
Friuli-Venezia Giulia	*1 215 538*	*173 648*	*7*
Abruzzo	*1 315 196*	*187 885*	*7*
Marche	1 531 753	*191 469*	8
Liguria	1 556 981	*194 623*	8
Calabria	1 956 687	*195 669*	10
Piedmont	4 375 865	*198 903*	22
Campania	5 826 860	*200 926*	29
Sicily	5 026 989	*201 080*	25

Emilia-Romagna	4 452 629	*202 392*	22
Apulia	4 048 242	*202 412*	20
Veneto	4 905 037	*204 377*	24
Lombardy	10 036 258	*204 822*	49
Sardinia	1 648 176	*206 022*	8
Tuscany	3 736 968	*207 609*	18
Lazio	5 896 693	*210 596*	28
Italians Abroad	5 800 000	*966 667*	6
Total	66 283 973		315
10% of Pop.	6 628 397		
	5 484 835		38
	1 143 562		
	0,746570955		
			43,97
% of Total Seats (UHIOR)			13.96%

Note: States in italics add up to less than 10%; All calculations done by the author. Data on regional populations comes from Eurostat (2023). Data on Senate apportionment comes from PARLINE (IPU, 2016).

Table A10. Kenya

Kenya	Population (2019)	Senate
Lamu	*14,392*	*1*
Isiolo	*268,002*	*1*
Samburu	*310,327*	*1*
Tana River	*315,943*	*1*
Taita–Taveta	*340,671*	*1*
Tharaka-Nithi	*393,177*	*1*
Elgeyo-Marakwet	*454,480*	*1*
Marsabit	*459,785*	*1*
Laikipia	*518,560*	*1*
Vihiga	*590,013*	*1*
Nyamira	*605,576*	*1*
Embu	608,599	1
Kirinyaga	610,411	1
West Pokot	621,241	1
Nyandarua	638,289	1
Baringo	666,763	1
Nyeri	759,164	1
Wajir	781,263	1
Garissa	841,353	1
Kwale	866,820	1
Mandera	867,457	1
Bomet	875,689	1
Nandi	885,711	1
Busia	893,681	1

Kericho	901,777	1
Makueni	987,653	1
Trans-Nzoia	990,341	1
Siaya	993,183	1
Murang'a	1,056,640	1
Migori	1,116,436	1
Kajiado	1,117,840	1
Homa Bay	1,131,950	1
Kitui	1,136,187	1
Kisumu	1,155,574	1
Narok	1,157,873	1
Uasin Gishu	1,163,186	1
Mombasa	1,208,333	1
Kisii	1,266,860	1
Machakos	1,421,932	1
Kilifi	1,453,787	1
Turkana	1,504,976	1
Meru	1,545,714	1
Bungoma	1,670,570	1
Kakamega	1,867,579	1
Nakuru	2,162,202	1
Kiambu	2,417,735	1
Nairobi	4,397,073	1
Total	48,012,768	47
10% of Pop.	4,801,277	
	4,270,926	11
	530,351	
	0.87142897	
		11.87
% of Total Seats (UHIOR)		25.26%

Note: States in italics add up to less than 10%; All calculations done by the author. Data on regional populations comes from Kenya National Bureau of Statistics (2019). Data on Senate apportionment comes from PARLINE (IPU, 2016).

Table A11. Malaysia

Malaysia	Population (2020)	House
Labuan and Victoria	*100,100*	*1*
Putrajaya	*116,100*	*1*
Perlis	*255,400*	*2*
Malacca	*937,500*	*2*
Negeri Sembilan	*1,129,100*	*2*
Terengganu	1,275,100	2
Pahang	1,684,600	2
Kuala Lumpur	1,746,600	2

Penang	1,774,400	2
Kelantan	1,928,800	2
Kedah	2,194,100	2
Perak	2,508,900	2
Sarawak	2,822,200	2
Johor	3,794,000	2
Sabah	3,833,000	2
Selangor	6,555,400	2
Total	32,655,300	30
10% of Pop.	3,265,530	
	2,538,200	8
	727,330	
	0.570410164	
		9.14
% of Total Seats (UHIOR)		30.47%

Note: States in italics add up to less than 10%; All calculations done by the author. Data on regional populations comes from the Malaysian Department of Statistics (2023). Data on Senate apportionment comes from PARLINE (IPU, 2016).

Table A12. Mexico

Mexico	Population (2020)	Senate
Aguascalientes	*731,391*	*3*
Baja California	*798,447*	*3*
Baja California Sur	*928,363*	*3*
Campeche	*1,235,456*	*3*
Coahuila de Zaragoza	*1,342,977*	*3*
Colima	*1,425,607*	*3*
Chiapas	*1,622,138*	*3*
Chihuahua	*1,832,650*	*3*
Ciudad de México	*1,857,985*	*3*
Durango	1,971,520	3
Guanajuato	2,320,898	3
Guerrero	2,368,467	3
Hidalgo	2,402,598	3
Jalisco	2,822,255	3
México	2,944,840	3
Michoacán de Ocampo	3,026,943	3
Morelos	3,082,841	3
Nayarit	3,146,771	3
Nuevo León	3,527,735	3
Oaxaca	3,540,685	3
Puebla	3,741,869	3
Querétaro	3,769,020	3
Quintana Roo	4,132,148	3

San Luis Potosí	4,748,846	3
Sinaloa	5,543,828	3
Sonora	5,784,442	3
Tabasco	6,166,934	3
Tamaulipas	6,583,278	3
Tlaxcala	8,062,579	3
Veracruz de Ignacio de la Llave	8,348,151	3
Yucatán	9,209,944	3
Zacatecas	16,992,418	3
Total	**126,014,024**	**96**
10% of Pop.	**12,601,402**	
	11,775,014	27
	826,388	
	0.419163082	
		28.26
% of Total Seats (UHIOR)		29.43%

Note: States in italics add up to less than 10%; All calculations done by the author. Data on regional populations comes from the Instituto Nacional de Estadística y Censos (2023). Data on Senate apportionment comes from PARLINE (IPU, 2016).

Table A13. Nigeria

Nigeria	Population (2017)	Senate
Bayelsa	*2,290,985*	*3*
Nasarawa	*2,484,482*	*3*
Ebonyi	*2,857,120*	*3*
Kwara	*3,089,231*	*3*
Taraba	*3,160,982*	*3*
Ekiti	*3,185,220*	*3*
Yobe	3,232,244	3
Gombe	3,411,323	3
Abia	3,646,214	3
Kogi	3,967,919	3
Cross river	4,013,047	3
Osun	4,106,177	3
Enugu	4,188,334	3
Plateau	4,201,252	3
Edo	4,244,511	3
Adamawa	4,299,284	3
Akwa ibom	4,644,867	3
Kebbi	4,677,379	3
Ondo	4,743,667	3
Imo	4,972,386	3
Zamfara	5,008,075	3
Delta	5,090,103	3

Anambra	5,352,877	3
Borno	5,491,442	3
Sokoto	5,508,650	3
Benue	5,551,238	3
Ogun	5,651,466	3
Niger	5,847,657	3
Jigawa	6,354,507	3
Rivers	6,734,279	3
Bauchi	7,067,129	3
Oyo	7,202,908	3
Capital Terr.	2,477,433	1
Kaduna	7,891,256	3
Katsina	8,668,899	3
Lagos	12,288,839	3
Kano	13,450,530	3
Total	191,053,912	109
10% of Pop.	19,105,391	
	17,068,020	18
	2,037,371	
	0.63	
		19.89
% of Total Seats (UHIOR)		18.25%

Note: States in italics add up to less than 10%; All calculations done by the author. Data on regional populations comes from the National Institute of Statistics and Geography (2021). Data on Senate apportionment comes from PARLINE (IPU, 2016).

Table A14. Pakistan

Pakistan	Population (2017)	Pop / Seats	Senate
Islamabad Capital Territory	*2,003,368*	*500,842*	*4*
Balochistan	*12,335,129*	*536,310*	*23*
FATA	*5,001,676*	*625,210*	*8*
Khyber Pakhtunkhwa	35,501,964	1,543,564	23
Sindh	47,854,510	2,080,631	23
Punjab	109,989,655	4,782,159	23
Total	212,686,302		104
10% of Pop.	21,268,630		
	19,340,173		35
	1,928,457		
	0.05		
			36.25
% of Total Seats (UHIOR)			34.86%

Note: States in italics add up to less than 10%; All calculations done by the author. Data on regional populations comes from the Pakistan Bureau of Statistics (n.d.). Data on Senate apportionment comes from PARLINE (IPU, 2016).

Table A15. Spain

Spain	Population (2017)	Pop/Seats	Senate
Melilla	*84,946*	*42,473*	*2*
Ceuta	*85,034*	*42,517*	*2*
Castile and León	*2,435,951*	*62,460*	*39*
La Rioja	*312,624*	*62,525*	*5*
Castilla-La Mancha	2,040,977	88,738	23
Aragon	1,316,072	94,005	14
Extremadura	1,077,525	107,753	10
Cantabria	581,490	116,298	5
Navarre	640,353	128,071	5
Galicia	2,710,216	142,643	19
Basque Country	2,167,323	144,488	15
Canary Islands	2,154,978	153,927	14
Balearic Islands	1,150,962	164,423	7
Asturias	1,034,302	172,384	6
Andalusia	8,408,976	205,097	41
Region of Murcia	1,472,991	245,499	6
Valencian Community	4,935,182	274,177	18
Catalonia	7,441,284	310,054	24
Community of Madrid	6,476,838	588,803	11
Total	46,528,024		**266**
10% of Pop.	4,652,802		
	2,918,555		48
	1,734,247		
	0.84971433		
			67.54
% of Total Seats (UHIOR)			25.39%

Note: States in italics add up to less than 10%; All calculations done by the author. Data on regional populations comes from Eurostat (2023). Data on Senate apportionment comes from the Spanish Constitution (Spanish Constitution, art. 69).

Table A16. Switzerland

Switzerland	Population (2017)	Pop/Seats	Federal Council
Appenzell I. Rh.	*16,105*	*16,105*	*1*
Uri	*36,299*	*18,150*	*2*
Obwalden	*37,575*	*37,575*	*1*
Glarus	*40,349*	*20,175*	*2*
Nidwalden	*42,969*	*42,969*	*1*
Appenzell A. Rh.	*55,178*	*55,178*	*1*
Jura	*73,290*	*36,645*	*2*
Schaffhausen	*81,351*	*40,676*	*2*
Zug	*125,421*	*62,711*	*2*
Schwyz	*157,301*	*78,651*	*2*

Neuchâtel	*177,964*	*88,982*	*2*
Basel-Stadt	193,908	193,908	1
Graubünden	197,888	98,944	2
Solothurn	271,432	135,716	2
Thurgau	273,801	136,901	2
Basel-Landschaft	287,023	287,023	1
Fribourg	315,074	157,537	2
Valais	341,463	170,732	2
Ticino	353,709	176,855	2
Lucerne	406,506	203,253	2
Geneva	495,249	247,625	2
St. Gallen	504,686	252,343	2
Aargau	670,988	335,494	2
Vaud	793,129	396,565	2
Bern	1,031,126	515,563	2
Zurich	1,504,346	752,173	2
Total	8,484,130		46
10% of Pop.	848,413		
	843,802		18
	4,611		
	0.023779318		
			18.02
% of Total Seats (UHIOR)			39.18%

Note: States in italics add up to less than 10%; All calculations done by the author. Data on regional populations comes from the Federal Statistical Office (2023). Data on Federal Council apportionment comes from the Swiss Federal Assembly (2023).

Table A17. United States

United States	Population (2020)	Senate
Wyoming	*576,851*	*2*
Vermont	*643,077*	*2*
Alaska	*733,391*	*2*
North Dakota	*779,094*	*2*
South Dakota	*886,667*	*2*
Delaware	*989,948*	*2*
Montana	*1,084,225*	*2*
Rhode Island	*1,097,379*	*2*
Maine	*1,362,359*	*2*
New Hampshire	*1,377,529*	*2*
Hawaii	*1,455,271*	*2*
West Virginia	*1,793,716*	*2*
Idaho	*1,839,106*	*2*
Nebraska	*1,961,504*	*2*
New Mexico	*2,117,522*	*2*

Kansas	*2,937,880*	*2*
Mississippi	*2,961,279*	*2*
Arkansas	*3,011,524*	*2*
Nevada	*3,104,614*	*2*
Iowa	3,190,369	2
Utah	3,271,616	2
Connecticut	3,608,298	2
Oklahoma	3,959,353	2
Oregon	4,237,256	2
Kentucky	4,505,836	2
Louisiana	4,657,757	2
Alabama	5,024,279	2
South Carolina	5,118,425	2
Minnesota	5,706,494	2
Colorado	5,773,714	2
Wisconsin	5,893,718	2
Missouri	6,154,913	2
Maryland	6,177,224	2
Indiana	6,785,528	2
Tennessee	6,910,840	2
Massachusetts	7,029,917	2
Arizona	7,151,502	2
Washington	7,705,281	2
Virginia	8,631,393	2
New Jersey	9,288,994	2
Michigan	10,077,331	2
North Carolina	10,439,388	2
Georgia	10,711,908	2
Ohio	11,799,448	2
Illinois	12,812,508	2
Pennsylvania	13,002,700	2
New York	20,201,249	2
Florida	21,538,187	2
Texas	29,145,505	2
California	39,538,223	2
Total	**330,762,090**	**100**
10% of Pop.	**33,076,209**	
	30,712,936	38
	2,363,273	
	0.740752245	
		39.48
% of Total Seats (UHIOR)		39.48%

Note: States in italics add up to less than 10%; All calculations done by the author. Data on regional populations comes from the United States Census Bureau (2021). Data on Senate apportionment comes from the United States Constitution (U.S. Constitution, art. 1, sec. 3).

B. Robustness Checks

Table B1. Hypothesis 1 and 2 Results with Age as a Categorical Variable

	(1)	(2)	(3)	(4)	(5)
UHIOR	0.01***	0.02***	0.02**	0.01	-0.18***
	(0.00)	(0.00)	(0.01)	(0.01)	(0.03)
Rural Residency (Yes)		0.27***	0.33**	0.31**	0.01
		(0.03)	(0.15)	(0.14)	(0.07)
Rural Residency * Upper House Inequality of Representation		-0.01***	-0.01**	-0.01**	-0.00
		(0.00)	(0.01)	(0.01)	(0.00)
Sex (Female)			0.02	0.02	0.02
			(0.02)	(0.04)	(0.04)
Age			0.02*		
			(0.01)		
Political Ideology (Right)			0.08**	0.07	0.13
			(0.04)	(0.10)	(0.08)
Government Ideological Alignment (Yes)			0.02	-0.29**	-0.11
			(0.05)	(0.10)	(0.08)
Age (25-34)				-0.04	0.00
				(0.08)	(0.07)
Age (35-44)				-0.07	-0.02
				(0.05)	(0.04)
Age (45-54)				-0.05	-0.03
				(0.08)	(0.07)
Age (55-64)				-0.00	0.00
				(0.06)	(0.05)
Age (65 and Older)				0.17*	0.14**
				(0.10)	(0.06)
Constant	2.00***	1.82***	1.72***	1.95***	8.92***
	(0.02)	(0.03)	(0.20)	(0.19)	(1.07)
R2	0.0066	0.014	0.016	0.023	0.13
Observations	34842	34842	29560	29560	29560

Standard errors in parentheses; Standard errors are clustered by country.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B2. Hypothesis 3 Results with Age as a Categorical Variable

	(1)	(2)	(3)	(4)	(5)
UHIOR	0.01***	0.01***	0.01	0.01	-0.18***
	(0.00)	(0.00)	(0.01)	(0.01)	(0.03)
Political Ideology (Right)		0.06*	0.05	0.07	0.13
		(0.04)	(0.15)	(0.10)	(0.08)
Political Ideology (Right) * Upper House Inequality of Representation		0.00	0.00	0.00	-0.00
		(0.00)	(0.00)	(0.00)	(0.00)
Government Ideological Alignment (Yes)			0.02	-0.29**	-0.11
			(0.05)	(0.10)	(0.08)
Sex (Female)			0.02	0.02	0.02
			(0.02)	(0.04)	(0.04)
Age			0.02		
			(0.01)		
Rural Residency (Yes)			-0.07	0.31**	0.01
			(0.07)	(0.14)	(0.07)
Age (25-34)				-0.04	0.00
				(0.08)	(0.07)
Age (35-44)				-0.07	-0.02
				(0.05)	(0.04)
Age (45-54)				-0.05	-0.03
				(0.08)	(0.07)
Age (55-64)				-0.00	0.00
				(0.06)	(0.05)
Age (65 and Older)				0.17*	0.14**
				(0.10)	(0.06)
Constant	2.00***	2.02***	1.99***	1.95***	8.92***
	(0.02)	(0.02)	(0.27)	(0.19)	(1.07)
R2	0.0066	0.0076	0.010	0.023	0.13
Observations	34842	29602	29560	29560	29560

Standard errors in parentheses; Standard errors are clustered by country.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B3. Hypothesis 4 Results with Age as a Categorical Variable

	(1)	(2)	(3)	(4)	(5)
UHIOR	0.01***	0.01***	0.01	0.01	-0.18***
	(0.00)	(0.00)	(0.01)	(0.01)	(0.03)
Sex (Female)		0.02	0.02	0.02	0.02
		(0.03)	(0.04)	(0.04)	(0.04)
Sex (Female) * Upper House Inequality of Representation		-0.00	0.00	0.00	0.00
		(0.00)	(0.00)	(0.00)	(0.00)
Age			0.00*		
			(0.00)		
Rural Residency (Yes)			-0.08	0.31**	0.01
			(0.07)	(0.14)	(0.07)
Political Ideology (Right)			0.09*	0.07	0.13
			(0.04)	(0.10)	(0.08)
Government Ideological Alignment (Yes)			0.02	-0.29**	-0.11
			(0.05)	(0.10)	(0.08)
Age (25-34)				-0.04	0.00
				(0.08)	(0.07)
Age (35-44)				-0.07	-0.02
				(0.05)	(0.04)
Age (45-54)				-0.05	-0.03
				(0.08)	(0.07)
Age (55-64)				-0.00	0.00
				(0.06)	(0.05)
Age (65 and Older)				0.17*	0.14**
				(0.10)	(0.06)
Constant	2.00***	1.99***	1.95***	1.95***	8.92***
	(0.02)	(0.02)	(0.24)	(0.19)	(1.07)
R2	0.0066	0.0066	0.011	0.023	0.13
Observations	34842	34822	29560	29560	29560

Standard errors in parentheses; Standard errors are clustered by country.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B4. Hypothesis 1 and 2 Results with Equilibrated Weight

	(1)	(2)	(3)	(4)	(5)
UHIOR	0.00***	0.01***	0.01*	0.01	0.05*
	(0.00)	(0.00)	(0.01)	(0.01)	(0.03)
Rural Residency (Yes)		0.29***	0.34**	0.33**	-0.04
		(0.03)	(0.16)	(0.15)	(0.07)
Rural Residency * Upper House Inequality of Representation		-0.02***	-0.02**	-0.02**	-0.00
		(0.00)	(0.01)	(0.01)	(0.00)
Sex (Female)			0.02	-0.00	0.02
			(0.02)	(0.04)	(0.04)
Age			0.02**	0.03	0.02*
			(0.01)	(0.02)	(0.01)
Political Ideology (Right)			0.09*	0.08	0.10
			(0.04)	(0.11)	(0.10)
Government Ideological Alignment (Yes)			-0.00	-0.27**	-0.10
			(0.05)	(0.12)	(0.10)
Constant	2.08***	1.88***	1.80***	1.91***	-0.04
	(0.01)	(0.02)	(0.21)	(0.18)	(1.11)
R2	0.0014	0.012	0.014	0.017	0.12
Observations	34842	34842	29560	29560	29560

Standard errors in parentheses; Standard errors are clustered by country.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B5. Hypothesis 3 Results with Equilibrated Weight

	(1)	(2)	(3)	(4)	(5)
UHIOR	0.00***	0.00*	0.00	0.01	0.05*
	(0.00)	(0.00)	(0.01)	(0.01)	(0.03)
Political Ideology (Right)		0.05	0.06	0.08	0.10
		(0.03)	(0.15)	(0.11)	(0.10)
Political Ideology (Right) * Upper House Inequality of Representation		0.00	0.00	0.00	-0.00
		(0.00)	(0.00)	(0.00)	(0.00)
Government Ideological Alignment (Yes)			-0.00	-0.27**	-0.10
			(0.05)	(0.12)	(0.10)
Sex (Female)			0.02	-0.00	0.02
			(0.02)	(0.04)	(0.04)
Age			0.02*	0.03	0.02*
			(0.01)	(0.02)	(0.01)
Rural Residency (Yes)			-0.08	0.33**	-0.04
			(0.07)	(0.15)	(0.07)
Constant	2.08***	2.11***	2.09***	1.91***	-0.04
	(0.01)	(0.02)	(0.27)	(0.18)	(1.11)
R2	0.0014	0.0039	0.0068	0.017	0.12
Observations	34842	29602	29560	29560	29560

Standard errors in parentheses; Standard errors are clustered by country.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B6. Hypothesis 4 Results with Equilibrated Weight

	(1)	(2)	(3)	(4)	(5)
UHIOR	0.00***	0.00***	0.00	0.01	0.05*
	(0.00)	(0.00)	(0.01)	(0.01)	(0.03)
Sex (Female)		0.00	-0.00	-0.00	0.02
		(0.03)	(0.04)	(0.04)	(0.04)
Sex (Female) * Upper House Inequality of Representation		-0.00	0.00	0.00	-0.00
		(0.00)	(0.00)	(0.00)	(0.00)
Age			0.00**	0.03	0.02*
			(0.00)	(0.02)	(0.01)
Rural Residency (Yes)			-0.09	0.33**	-0.04
			(0.07)	(0.15)	(0.07)
Political Ideology (Right)			0.09*	0.08	0.10
			(0.04)	(0.11)	(0.10)
Government Ideological Alignment (Yes)			-0.01	-0.27**	-0.10
			(0.05)	(0.12)	(0.10)
Constant	2.08***	2.08***	2.06***	1.91***	-0.04
	(0.01)	(0.02)	(0.22)	(0.18)	(1.11)
R2	0.0014	0.0014	0.0071	0.017	0.12
Observations	34842	34822	29560	29560	29560

Standard errors in parentheses; Standard errors are clustered by country.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B7. Hypothesis 1 and 2 Results with Random Effect Linear Models

	(1)	(2)	(3)	(4)	(5)
UHIOR	0.00	0.00	0.00	0.00	0.05**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)
Rural Residency (Yes)		-0.05	-0.01	-0.01	-0.01
		(0.03)	(0.07)	(0.07)	(0.07)
Rural Residency * Upper House Inequality of Representation		0.00	-0.00	-0.00	-0.00
		(0.00)	(0.00)	(0.00)	(0.00)
Sex (Female)			0.02	0.01	0.01
			(0.02)	(0.04)	(0.04)
Age			0.01	0.02*	0.02*
			(0.01)	(0.01)	(0.01)
Political Ideology (Right)			0.08***	0.10	0.10
			(0.03)	(0.09)	(0.09)
Government Ideological Alignment (Yes)			0.01	-0.12	-0.12
			(0.03)	(0.09)	(0.09)
Constant	2.06***	2.09***	2.04***	2.04***	-0.28
	(0.24)	(0.19)	(0.22)	(0.22)	(0.98)
R2					
Observations	34842	34842	29560	29560	29560

Standard errors in parentheses; Standard errors are clustered by country.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B8. Hypothesis 3 Results with Random Effect Linear Models

	(1)	(2)	(3)	(4)	(5)
UHIOR	0.00	0.00	0.00	0.00	0.05**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)
Political Ideology (Right)		0.10***	0.10	0.10	0.10
		(0.03)	(0.12)	(0.09)	(0.09)
Political Ideology (Right) * Upper House Inequality of Representation		-0.00	-0.00	-0.00	-0.00
		(0.00)	(0.00)	(0.00)	(0.00)
Government Ideological Alignment (Yes)			0.01	-0.12	-0.12
			(0.03)	(0.09)	(0.09)
Sex (Female)			0.02	0.01	0.01
			(0.02)	(0.04)	(0.04)
Age			0.01	0.02*	0.02*
			(0.01)	(0.01)	(0.01)
Rural Residency (Yes)			-0.03	-0.01	-0.01
			(0.04)	(0.07)	(0.07)
Constant	2.06***	2.06***	2.04***	2.04***	-0.28
	(0.24)	(0.24)	(0.25)	(0.22)	(0.98)
R2					
Observations	34842	29602	29560	29560	29560

Standard errors in parentheses; Standard errors are clustered by country.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B9. Hypothesis 4 Results with Random Effect Linear Models

	(1)	(2)	(3)	(4)	(5)
UHIOR	0.00	0.00	0.00	0.00	0.05**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)
Sex (Female)		0.01	0.01	0.01	0.01
		(0.03)	(0.04)	(0.04)	(0.04)
Sex (Female) * Upper House Inequality of Representation		-0.00	0.00	0.00	0.00
		(0.00)	(0.00)	(0.00)	(0.00)
Age			0.00*	0.02*	0.02*
			(0.00)	(0.01)	(0.01)
Rural Residency (Yes)			-0.03	-0.01	-0.01
			(0.04)	(0.07)	(0.07)
Political Ideology (Right)			0.08***	0.10	0.10
			(0.03)	(0.09)	(0.09)
Government Ideological Alignment (Yes)			0.01	-0.12	-0.12
			(0.03)	(0.09)	(0.09)
Constant	2.06***	2.05***	2.03***	2.04***	-0.28
	(0.24)	(0.25)	(0.22)	(0.22)	(0.98)
R2					
Observations	34842	34822	29560	29560	29560

Standard errors in parentheses; Standard errors are clustered by country.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B10. Hypothesis 1 and 2 Results with Alternative Definition of Rural.

	(1)	(2)	(3)	(4)	(5)
UHIOR	0.01***	-0.00**	-0.00	-0.01	-0.17***
	(0.00)	(0.00)	(0.01)	(0.01)	(0.04)
Rural Residency (Yes)		-0.34***	-0.39*	-0.37*	0.03
		(0.03)	(0.20)	(0.20)	(0.09)
Rural Residency * Upper House Inequality of Representation		0.02***	0.02**	0.02**	-0.00
		(0.00)	(0.01)	(0.01)	(0.00)
Sex (Female)			0.02	0.01	0.02
			(0.02)	(0.04)	(0.04)
Age			0.02**	0.03*	0.02
			(0.01)	(0.02)	(0.02)
Political Ideology (Right)			0.07**	0.10	0.13
			(0.03)	(0.09)	(0.08)
Government Ideological Alignment (Yes)			0.02	-0.28**	-0.10
			(0.05)	(0.10)	(0.08)
Constant	2.00***	2.18***	2.15***	2.25***	8.75***
	(0.02)	(0.02)	(0.22)	(0.23)	(1.74)
R2	0.0066	0.028	0.028	0.031	0.13
Observations	34842	34842	29560	29560	29560

Standard errors in parentheses; Standard errors are clustered by country.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$