Recent empirical studies have demonstrated that ethno-linguistic diversity has a negative relationship with quality of government (QoG). In response to this challenge, states have two broad options with respect to vertical power-sharing. One, they can attempt to integrate various factions by adopting a unitary, centralized constitution. Two, they can accommodate minority groups with ethno-federalism, giving them a degree of regional autonomy. Using numerous QoG indicators in a cross-sectional regression from 1995 to 2004, the data show that ethno-federalism outperforms its integrationist rival for each QoG measure employed in the analysis. While numerous other empirical studies have examined the impact of ethno-federal institutions on either civil conflict or separatism, this is the first to assess the effects of this institution on government quality relative to integrationist states.

Much research in the past few decades has been devoted to how states can most effectively manage ethnic and linguistic diversity within their borders. Broadly speaking, leaders in democratic countries have two competing strategies that they can employ to best govern their citizens—integration or accommodation. The former seeks to create a polity, which has one overarching language, culture, and identity, dismissing the idea that diverse minority ethnic and linguistic groups should have some degree of privileged political status that distinguishes them from the majority. The latter tries to accommodate diversity by establishing institutions, which allow minority groups to participate in politics collectively and coexist with the majority group. Although there are many types of institutions that represent the accommodation or consensual school of thought (such as proportional representation, minority veto, etc.), one such institution is multinational, incongruent, or ethno-federalism, which is a form of federalism that draws the boundaries of one or more of its provinces around a minority group, giving a minority group a majority status in at least one province (e.g. Quebec in Canada). Though scrutiny of this type of accommodation has been intense in the scholarly...
literature—especially with respect to civil conflict and separatism as outcome variables—with states such as Iraq, Sri Lanka, Sudan, and Cyprus currently considering this institution, more theoretical and empirical work is certainly needed to understand the impact of this institution on other policy outcome areas.

Although there has been substantial empirical focus on the federalism–governance nexus, the evidence is mixed on whether decentralization of power inherent in federalism leads to better governance. While one group of scholars find that more decentralized states have higher levels of corruption (Treisman 2000; Gerring and Thacker 2004), others find empirical support for better governance (Fisman and Gatti 2002; Adesera et al. 2003), and some find no results (Norris 2008). Clearly more work is needed in this area to resolve these findings, but what previous studies have overlooked is the domestic context in which a federal constitution exists—in particular whether a relatively heterogeneous country attempts to accommodate or integrate its diverse groups politically. Further, this study goes beyond the federal/unitary comparison for all states to analyze the impact of vertical power-sharing political institutions in divided societies—meaning whether a heterogeneous country has adopted an ethno-federal constitution or not.

This study expands previous research on the effects of ethno-federalism. Large-N empirical studies on the effects of ethno-federalism have primarily been limited to analyzing its impact on reducing the likelihood of civil conflict, with mixed results (Horowitz 1991; Jalali and Lipset 1992: 601–605; Ornstein and Coursen 1992; McGarry and O’Leary 1993; Gurr 1993 and 2000; O’Leary and McGarry 1995; Kaufman 1996; Laponce 2003; Brancati 2006). Other studies, which have employed case study research on states that have recently adopted some aspects of ethno-federalism, have also demonstrated mixed findings. For example, developing countries such as South Africa (Murray and Simeon 2007) and Indonesia (Bertrand 2007) have moved to more accommodating models and they have created relatively successful political harmony among diverse groups. Others, such as Singapore and Malaysia in 1965, Czechoslovakia in 1993, and Yugoslavia in the 1990s, ended in separatism and/or internal conflict. While state-breakdown or separatism are certainly salient outcome variables to researchers and policy-makers, as shown in Hale’s (2004) study on core ethnic group regions, a lack of civil war or separatism is hardly grounds for claims of success for either ethno-federalism or its rival (the unitary model) for diverse populations. Thus, I argue, it is incumbent upon researchers to evaluate the impact of the two rival models (integrationist or accommodation) using a different standard than state-breakdown. One interesting empirical question is to what extent political elites in heterogeneous countries manage the impartial rule of law, do not engage in corruption, and provide quality bureaucratic services to citizens based on whether they have adopted an ethno-federal system or not. This analysis seeks to evaluate the impact of ethno-federalism in diverse or fractionalized countries using quality of government (QoG) indicators as outcome
variables. The aim is to determine whether the vertical power-sharing method of accommodation has been effective—not only for avoiding civil wars or keeping diverse groups together within a single state—but also establish whether such a system produces better governance among diverse groups than integrationist constitutions.

Thus the purpose of this analysis is not to explain why a country has chosen the accommodation model of ethno-federalism or the cases in which it has broken down. The primary point is this: given that some states have adopted the ethno-federal model, how do such countries compare—with respect to QoG—to other fractionalized countries, which have adopted more integrationist-type institutions? Put another way, does the ethno-federal model—as scholars such as Lijphart predict—provide elites from various ethnic and linguistic groups the incentives to govern better, or is QoG higher in states that have sought a more integrationist model of vertical power-sharing? The literature on power-sharing institutions in divided societies implies two rival hypotheses regarding this puzzle. Surprisingly, this question remains untested in the empirical literature.

I test this question on a wide range of states using multiple indicators of QoG in a cross-sectional sample that ranges from 1995 to 2004. The empirical results demonstrate two interesting findings. First, the literature has shown that more heterogeneous (or fractionalized) states, on average, have lower QoG (La Porta et al. 1999; Alesina et al. 2003), slower economic growth rates (Easterly and Levine 1997; Collier 2000), or greater political instability (Mauro 1995; Annett 1999) than states that are more homogenous. The data in this analysis support these general claims and empirical findings. I find that in countries that have higher degrees of ethno-linguistic fractionalization, the ethno-federal sample shows significantly higher QoG scores than diverse states that have adopted a unitary/integrationist model of power-sharing. The results support the notion that the impact of federal institutions on the QoG is contextualized and nuanced and that, given a diverse population, certain institutions such as ethno-federalism can encourage better governance among various groups than its integrationist rival.

The Debate: Integration versus Accommodation

One of the most difficult questions facing societies today is how to respond to ethnic, linguistic, and religious diversity in ways that promote stability, growth, democracy, and human rights (Choudry 2008). Multiple ethno-linguistic divisions might create a greater likelihood for conflict and rent-seeking behavior, which makes governing more difficult. Broadly speaking, two rival hypotheses are expected in this well-established literature on power-sharing in divided societies, yet they have remained untested in a broad, cross-sectional sample of countries. According to the first theory, societies can choose a Leviathan-type, unitary system with one set of clear rules for all citizens (Ophuls and Boyan 1992). According to
the second theory, they can select a federal constitution where power is divided among many groups and allow such smaller groups to govern themselves on a wide range of issues. Recently, a number of scholars have devoted much attention to the effects of political institutions on QoG (Weingast 1997; Ades and De Tella 1999; La Porta et al. 1999; Treisman 2000; Adesera et al. 2003; Persson et al. 2003; Gerring and Thacker 2004). Although few have focused theoretical arguments on the causal relationship between ethno-federal or integrationist institutions on QoG in divided societies, there is a wealth of literature implying the effect, which I draw on below.

**The Arguments for Accommodation**

Since the writings of James Madison, proponents have argued that institutions such as regional representation serve as a political outlet for multiple distinct ethnic, religious, or linguistic groups in a society. In the modern-day literature, many proponents of consociationalism have argued that identities in a society are often too resilient to overcome with integrationist institutions—thus, a state with sizeable minority groups should, in fact, accommodate these factions through institutions such as proportional representation, minority veto, and—of particular importance to this study—ethno-federalism (see McRae 1974; Lijphart 1977, 1985, 1999; Kymlicka 1995; Watts 1999a, b).

**Elite Bargaining—‘Trickle Down Tolerance’**

While large-N comparative studies of ethno-federalism outside of the civil conflict literature are rare, some scholars have certainly theorized about the effect of ethno-federalism and cultural autonomy on QoG in fractionalized states. Lijphart (1984, 1985, 1997) postulates that distinct ethnic and linguistic groups within a heterogeneous society should be allowed to have corresponding political sub-national governments in which to conduct a number of policy avenues autonomously. In heterogeneous societies, the key to tolerance and cooperation—which lead to impartial laws, legitimacy, and a better-functioning government—are elites, who can either send hostile or cooperative signals to their constituencies regarding relations with other groups. Lijphart suggests that the best way in which to obtain elite consent necessary for cooperation is not by forcing them—particularly for minority elites—to fight for power in a unitary state, but by offering them an automatic share of power concentrated in a sub-national region. He thus offers a top-down/elite-driven theory in which leaders of diverse social groups that have their own legitimate sub-national governments work together, and with the majority group at the national level. Provided that local elections and a certain degree of provincial fiscal legislation are allowed, the cultural and linguistic identities of minority groups remain intact and protected by the government. For example, the important policy areas include education curriculum and right to
teach a different language and history in schools, taxation levels, and local security and justice laws. In order to preserve their status as regional leaders with a degree of legitimate power to lose, such elites persuade their voters to accept the status quo of the federal system. With the consent of the minority and majority-group elite members, the legitimacy and content of the systems among the citizenry begins. Over time, a stable, well-governed country (relative to unitary states) is expected. For example, in a well-argued policy prescription designed to influence the constitution of Iraq, McGarry and O’Leary (2007) maintain that the consensual, ethno-federal model would be the most appropriate—not only to avoid future civil war, but to give each group a stake in politics and to “create incentives for an executive that is responsible to different regional constituencies” (McGarry and O’Leary 2007: 693). In sum, elites of multiple ethnic or linguistic groups will have much less incentives to fight the central government and will instead be more persuaded to coalesce together nationally, while simultaneously providing better governance locally to ethnically or linguistically similar people, as opposed to being forced into an integrationist arrangement—where they are at best under-recognized by a larger, majority group and, at worst, targeted and discriminated by laws and bureaucratic services that favor the majority group in power.

**Social Capital, Trust, and Legitimacy**

Heterogeneous societies have more actors vying for resources and thus increase the likelihood for collective action problems and have problems with respect to social trust in government relative to more homogenous states. Some scholars have noted that one possible way a state can aid in overcoming trust-deficit and collective action dilemmas is through the promotion of social capital (Ostrom 1990; Putnam 1994; Mazzone 2001) and general trust in society by providing minorities a stake in the democratic society (Posen 1993; Fearon 1996), thus leading to impartial institutions and better overall satisfaction in governance (Rothstein 2007). A constitution that allows for sub-national government is one where multiple interests and ethnic groups can participate in politics while not vying for power in one capital city. Majority groups send a credible signal to minorities that their political preferences will be heard both in the region in which they live and at the central level, most often through an upper chamber. Conversely, unitary states with diverse populations allow for the potential domination of one or narrow-interest groups, which might leave out minority constituencies from policy-making. Federalism provides such a forum for citizens to “actively increase opportunities for engagement in government by additional groups of citizens, thereby enhancing social capital” (Mazzone 2001: 42). Gurr (1993) presents empirical evidence showing that divided states that allow for cultural autonomy reduce the likelihood of protests and rebellions among minority groups. Citizens can more actively
participate in social and political networks knowing that they can participate at a more local level with others more like themselves, fostering more trust and encouraging collective action.

**Encouraging Intra-Ethnic Responsibilities while Increasing Minority Protection**

Another way that the accommodationist model can help to alleviate potential collective action problems among diverse groups in a single country is simply through dividing up the responsibility of governance (Kymlicka 1995, 1998; Watts 1999a). As Olson (1965) points out, smaller group size is easier to manage in order to produce the common good—in this case, quality governance for all diverse groups. By reducing the number of participants from governing in one central level, specific policy preferences and goals can be more easily identified and smaller groups—in this case ethnic or linguistic minorities—have a greater incentive to take responsibility for themselves rather than buck-passing—relying on the majority group in power at the center to govern on their behalf. This type of arrangement essentially builds privileged local elite classes and increases democratic participation in minority regions, whereby leaders of such groups have stronger incentives to take on more responsibility of providing better governance and economic goods to their regional constituents (see Olson 1965: 48–50).

By providing cultural and linguistic autonomy to various minority groups within a diverse society, provincial governments constrain potential abuses of power at the central level directed at minority groups by offering multiple groups in society the authority to maintain their linguistic or ethnic integrity, as in the case with the Francophone population in Canada residing in Quebec (Watts 1999a). Federal arrangements thus reduce the likelihood of potential abuses of power by the majority group at the central level by shielding the minority groups from domination.

Such a constitutional design gives individuals and minority groups protection from the center while simultaneously interlocking decision-making on salient policy areas such as education, where the provincial governments can influence the decisions made at the central level. Such an arrangement can lead to greater satisfaction and less incentive by central authorities to seek rents at the expense of other groups because there are fewer opportunities to do so, relative to a more centralized, unitary state (Goodin 1996). Simultaneously, it puts accountability on leaders in minority and majority regions alike, to produce quality outputs in their policy spheres, knowing that they cannot blame certain policy failures on the other group during their provincial elections.

The debate over whether to have an integrationist or accommodation institution implies that the impact of fractionalization on QoG will be conditioned by either
ethno-federalism or the more integrationist strategy. The following hypothesis will thus be tested in this analysis:

H1: With respect to vertical power-sharing, ethno-federalism is more likely to produce higher levels of QoG in divided societies than more integrationist institutions.

The Arguments for Integration

Problems with “Asymmetrical Laws”

Theoretical arguments for a more integrationist institutional model agree that building one nation, founded on a common culture and language is of primary importance in constitutional design (Brass 1991; Horowitz 1991, 2000; Barry 2000; Reilly 2001). Integrationist institutions are designed with the intent to build impartial and equal citizenship among a polity, which would lead to relatively better rule of law than by accommodating minorities. Such scholars argue that accommodationist practices can institutionalize and exacerbate differences among various diverse groups that they are designed to manage (Horowitz 2000). These arrangements can be particularly harmful when minority regions obtain greater representation than their population would warrant under a unitary system (Yash Ghai 2002). This is because, if the balance of power is perceived as being tilted unfairly, it could lead to resentment by the majority and encourage poorer bureaucratic services to minority groups and bring about confusion regarding decision rules, which also potentially exacerbates corruption and poor government quality (Gerring and Thacker 2004). Thus allowing special privileges to certain groups in the form of autonomy or federalism, which draws territorial boundaries around certain minority groups, undermines the goal of “one nation”. Additional special privileges and/or asymmetric representation for particular ethnic or linguistic groups can lead to a “lack of cohesion and problems of governability” (Yash Ghai 2002: 159). Integrationist institutional designs with respect to vertical power-sharing would thus be either unitary or a form of federalism that is not designed around any ethnic or linguistic criteria (i.e. the United States or Germany).

The “Incompetent Lower-Level Bureaucrat” Argument

Some emphasize that federal systems in general are less likely to attract competent policy makers and bureaucrats at the regional and local levels because the benefits for such positions would be considerably less rewarding than similar positions at the central level (Tanzi 1996, 2001). Specifically, some scholars take issue with the notion that decentralized/federal institutions lead to better political outcomes in
fractionalized societies. Such scholars argue that corruption may be greater at the provincial and local levels, possibly due to easier access to such policy makers when sought out by interest groups. This scenario creates an environment where corruption and bureaucratic inefficiency are more likely at the regional levels, thus leading to poorer quality government in decentralized countries (Ghai and Regan 1992; Prud’homme 1995; Tanzi 1996; Brueckner 1999). Further, in developing states, which may have poorly equipped regions led by minority ethno-linguistic groups, the fiscal and political responsibilities can be overwhelming, leading to massive inefficiencies in the bureaucracy (Yash Ghai 2002).

Confusion regarding Accountability

Another argument along these lines is whether a federal structure could lead to less overall accountability if political decision-making is made at multiple levels of government. On one hand, voters have a more difficult time assessing blame for poor-quality governance, thus providing some with more of an incentive to extract rents. On the other hand, bureaucrats and policy makers could theoretically be less coordinated among the levels of government and, with each level being equally corrupt; there could be a disproportionate amount of rent-seeking, relative to more centralized states (Shleifer and Vishny 1993). Such confusion among levels can lead to finger-pointing and buck-passing from one region/ethnic group to another, which gives rent-seeking opportunities for politicians and bureaucrats. This can be especially prevalent in ethno-federal states where relations between two or more of the diverse groups are antagonistic, encouraging the blame of the “other” for poor governance, while simultaneously engaging in corruption.

Additionally, ethno-federalism, like mono-federalism, would add an additional “veto point” (Tsbelis 2000). Because the status quo is less likely to change as a function of the number of veto points, this could on the one hand be helpful to ensure impartial and beneficial laws and policies to most citizens. However, as Gerring et al. (2007: 8–10) argue, federalism can also make changing a corrupt, sub-optimal status quo more difficult.

Questionable Motivation of Elites

Finally, some critics of ethno-federalism question the consociational assertion that given multi-ethno-linguistic minority rule in sub-national regions and guaranteed representation at the central level, elites from such diverse groups will be more likely to tolerate and negotiate with one another to produce a moderate political environment (Reilly and Reynolds 1999; Horowitz 2002). As Horowitz (1997, 2002) points out, the motivations of elites toward other ethnic/linguistic groups in an ethno-federation, with respect to tolerance and compromise, may or may not be less ethnocentric than the masses they represent. In some cases, elites that do in fact
choose to compromise might pay a political price from their own base, being branded a “sellout” (Horowitz 2002: 21). In cases where the incentives for elites to cooperate among diverse groups are low, more integrationist political institutions that encourage broad coalitions among diverse constituencies—rather than allowing and encouraging them to reinforce ethno-linguistic differences—are argued to be more beneficial for cooling potential tensions and conflicts, which certainly threaten good governance and the impartiality of the rule of law.

The preceding literature leads to the following hypothesis:

H2: With respect to vertical power-sharing, integrationist institutions are more likely to produce higher levels of QoG in divided societies than ethno-federalism.

Research Design

The research design consists of a cross-sectional, multivariate regression for each of the four dependent variables. This allows for a number of control variables to be included to account for rival hypotheses of QoG’s determinants. Because the primary independent variables are largely time-invariant, the cross-sectional approach is appropriate for this analysis, including the interaction term. The sample is stratified, and only states that are at least partially democratic according to Polity IV are included. This is relevant because both the accommodationist and integrationist proponents discuss the bargaining relationship among elites and citizens of diverse groups in a democratic setting. Thus dictatorships that are coded as “ethno-federal” (such as Nigeria or Ethiopia in this case) are dropped from the analysis, along with all non-democratic “integrationist” countries. Concerning the timeframe, I use country nine-year averages for all available data in the analysis. Following the advice of Ray (2005), I provide a baseline for the model, using only the key independent variables individually, before reporting the full models, which include control variables and the interaction term. Finally, I take a stratified sample that includes only developing, or newly federal states in the analysis.

Presentation of Data and Methods

Dependent Variables

To test the full scope of the effect of power-sharing institutions on government quality, I employ four dependent variables in the study. According to the Quality of Government Institute, the three core areas that serve as empirical proxies for government quality as a concept are low levels of corruption, high levels of bureaucratic quality and effectiveness, and strong democratic institutions and participation among a country’s citizens. Due to admittedly problematic data at times with such concepts as corruption and level of bureaucratic quality, I utilize
multiple proxy measures to account for any potential aberrations in the empirical findings of any single measure.

Two of the dependent variables employed here are taken from the Political Risk Services Group’s (PRS) International Country Risk Guide (ICRG). The PRS Group, a think tank specialized in economic and political risk assessment internationally, has published monthly data for business and investors on over 140 countries since 1980. The primary variable, representing all three components of QoG is the mean value of the ICRG variables “Corruption,” “Law and Order,” and “Bureaucracy Quality,” scaled 0–1. Additionally, I take the measure of “corruption” separately, which accounts for “excessive patronage, nepotism, job reservations, ‘favor-for-favors,’ secret party funding, and suspiciously close ties between politics and business.” The data in the analysis has a finite range from “0” to “1”, with higher scores indicating lower levels of perceived corruption. It has also been used by other recent empirical studies (Ades and Di Tella 1999; Fisman and Gatti 2002; Persson, Tabellini, and Trebbi 2003,).

The third measure employed here comes from Transparency International; a non-partisan organization that has created the “Corruption Perceptions Index” (CPI), intended to capture corruption. The CPI score measures the “perceptions of the degree of corruption as seen by business people, risk analysts, and the general public”. The fourth measure is intended to capture “government effectiveness” (or “bureaucratic quality”) from the World Bank Governance Indicator (Kaufmann, Kraay, and Mastruzzi 2007). Specifically, they code this variable on the basis of “the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, and the independence of the civil servants from political pressures and the credibility of the government’s commitment to policies”. A more detailed description of these variables can be found in the Supplementary Appendix A1.

Independent Variables

Ethno-Federalism

For the purposes of this analysis, ethno-federalism is defined as possessing three features: (1) sub-units that are defined territorially and identified with an ethnic and/or linguistic minority; (2) dual sovereignty, where policy-making is divided between a center and its sub-units and; (3) a center-sub-unit relationship that is marked by coordination and autonomy (see Riker 1964; Stephan 1999; Filippov, Ordeshook, and Shvestsova 2004; Bunce 2004).

I take a contemporary list of federal systems from the Forum of Federations and cross-check these data with the Database of Political Institutions (DPI, Kiefer et al. 2005). The countries that are selected as “ethno federations” are checked with previously published studies on this topic (Laponce 2003; Verney 2004; József 2005). The measures important to this study are of course whether a state has
provincial legislatures and if, in fact, they are locally elected rather than appointed by the central government, and whether or not such provincial governments have “extensive taxing, spending, or regulation authority.” These elements follow the standard of what is considered a decentralized or federal country. I thus generate a dichotomous indicator for whether a country has an ethno-federal (“1”) or an integrationist political structure (“0”), excluding those considered “monofederal” (Juhasz 2005) due to the specific prediction that ethno-federal constitutions can aid in better governance in ethnically diverse states. A full list of the federal states is listed below in table 1, with ethno-federations in parentheses.

Table 1 List of federal states

| Argentina | Canada | Mexico | South Africa |
| Australia | Comoros | Micronesia | Spain |
| Austria | Ethiopia | Nigeria | Switzerland |
| Belgium | Germany | Pakistan | United Arab Emirates |
| Bosnia & Herzegovina | India | Russia | United States |
| Brazil | Malaysia | St. Kitts & Nevis | Venezuela |

Note: States considered to be “ethno-federations” are listed in italics.


Fractionalization

The second important aspect of this study pertains to whether or not accommodationist/integrationist institutions have a lesser or greater effect depending on if a country is heterogeneous or homogenous with respect to ethnicity and/or language. I employ a common measure to capture this effect—ethno-linguistic fractionalization—from the study of Alesina et al. (2003). Values are calculated as one minus the Herfindahl index of ethnic, linguistic, and religious group shares of the total annual population. The figure essentially represents the probability that two randomly selected individuals from a country will belong to two different ethnics, linguistic, or religious groups. The index ranges from “0” to “1,” with higher values equating to higher fractionalization. Though I anticipate that higher fractionalization will relate negatively with quality of government, the key to this analysis is that I intend to demonstrate the contextual impact of accommodationist/integrationist institutions, meaning that when heterogeneity is high, I test which institutions are associated with better government quality. To maximize the full amount of variance in the sample, I construct an interaction term with the ethno-federal variable and ethno-linguistic fractionalization to test for this effect (ethno-fed.*fractionalization).
Control Variables

Though I try to be as parsimonious as possible, some control variables are needed in the model to account for rival hypotheses. First I include the size of a country by accounting for its population. Such a measure is useful in avoiding spurious correlation between larger countries with more diverse populations adopting federal structures to best provide for their citizens. I also include GDP per capita from the Penn World Tables (Heston et al. 2002) to account for economic development. I take the natural log of country’s GDP. Furthermore, a number of empirical studies have found lower degrees of corruption in states with a free press (Ahrend 2002; Brunetti and Weder 2003; Lindstadt and Naurin 2005). I use the Freedom House measure of press freedom, which scores states on a scale of 0–100. I reverse the index so that higher scores indicate higher levels of press freedom. Finally, because some empirical studies have found systematic differences for QoG variables when testing for certain regions, such as the Middle East (Norris 2008), Latin America (Rodrik 2000; Treisman 2000), and sub-Saharan Africa (Treisman 2000), a number of area dummies are included in the analyses. All are dichotomous (0/1) indicators as to whether or not a country is located in Africa, Latin America, or the Middle East. Again, a more detailed description of all variables used in the analyses is located in the Supplementary Appendix A1.

Results

Table 2 shows the six different empirical models all designed to test the two rival hypotheses with countries that rank above a five on the Polity IV. Model 1 is a test of the basic relationship of the two primary variables on the PRS Group measure of QoG, which includes rule of law, corruption, and bureaucratic quality. Upon first glance, the coefficient for ethno-federalism indicates that the accommodation model has a positive, but insignificant effect on QoG, while the impact of fractionalization is clearly negative, a result found commonly in the literature. Model 2 employs the same dependent variable, yet adds more nuance to the analysis with the interaction term and the controls for population, free press, economic development as well as area dummies. While in model 1, the impact of ethno-federalism was insignificant, here in model 2 we observe that its impact on QoG is highly contextualized—the interaction term is positive and significant at the 95 percent level of confidence and in cases of high fractionalization, the effect of the ethno-federal model is positive and significant as compared with the integrationist constitutions (see figure 1 and table 3). However, looking at the two individual constituent variables individually, the coefficients might be misleading at first glance with the interaction term present. The result for fractionalization represents the effect of this variable only for integrationist/unitary states, which is negative and insignificant. The coefficient for ethno-federalism, which is negative
| Primary independent variables | QoG | | | Alternate measures of QoG | | | | | | | | Baseline | Full model\(^a\) | Full model\(^a\) | Full model\(^a\) | Full model\(^a\) | Full model\(^a\) | Developing States only\(^b\) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ethno-Federalism | \(0.124 (0.121)\) | \(-0.293 (0.108)\)** | \(-2.58 (0.75)\)** | \(-0.802 (0.368)\)** | \(-0.360 (0.114)\)** | \(-0.571 (0.179)\)** |
| Fractionalization | \(-0.410 (0.087)\)** | \(-0.068 (0.048)\) | \(-0.35 (0.60)\) | \(-0.229 (0.212)\) | \(-0.093 (0.078)\) | \(-0.111 (0.211)\) |
| Fed*Fractionalization | \(0.561 (0.200)\)** | \(5.02 (1.55)\)** | \(1.63 (0.805)\)** | \(0.681 (0.241)\)** | \(1.07 (0.354)\)** |
| Control variables | | | | | | | | | | | | | | |
| Population (log) | \(0.005 (0.006)\) | \(0.003 (0.07)\) | \(0.103 (0.021)\)** | \(0.004 (0.008)\) | \(0.065 (0.020)\)** |
| Press Freedom | \(0.061 (0.047)\) | \(0.77 (0.53)\) | \(0.531\)** | \(0.019\) | \(0.664\)** |
| GDP Per Capita (log) | \(0.993 (0.011)\)** | \(1.24 (0.13)\)** | \(0.473 (0.041)\)** | \(0.094 (0.014)\)** | \(0.307 (0.038)\)** |
| Constant | \(0.798 (20.47)\)** | \(-1.72 (0.098)\)* | \(-5.82 (1.03)\)** | \(-4.65 (0.310)\)** | \(-0.104 (0.151)\) | \(-3.29 (0.317)\)** |
| Obs. | 79 | 79 | 85 | 105 | 79 | 77 |
| Prob. > F | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| \(R^2\) | 0.22 | 0.83 | 0.80 | 0.81 | 0.64 | 0.64 |

Note: OLS regression with robust standard errors (in parentheses). Limited to states coded as above a “5” according to Polity for a majority of the years from 1996 to 2004. Developing states are outside the OECD.

\(^a\)Indicates that model also contains area dummies for Middle East, Africa, and Latin America.

Dependent variable is ICRG Quality of government (rule of law, control of corruption and bureaucratic quality). Alternative indicators are Transparency International (corruption), World Bank (“government effectiveness”) and ICRG (corruption only).

\(^b\)“Developing-States” model uses World Bank data for maximum number of observations.

\(^*\)\(p<0.10\), \(^{**}\)\(p<0.05\), \(^{***}\)\(p<0.01\).
and significant, is only interpretable when ethno-fractionalization is “0”, which would defeat the purpose of any ethno-federal boundaries within a country and of course does not occur in the sample. Thus one must take into account the interaction coefficient to understand the effects of ethno-federal states in heterogeneous countries relative to unitary states (see Figure 1).

**Figure 1** Marginal effect of ethno-linguistic fractionalization on QoG, dependent variable: ICRG QoG scores.

**Table 3** Predicted level of QoG in ethno-federal states at different levels of ethno-linguistic fractionalization

<table>
<thead>
<tr>
<th>Level of fractionalization</th>
<th>Predicted effect</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1</td>
<td>−0.195 (0.074)**</td>
<td>−0.343 to −0.048</td>
</tr>
<tr>
<td>0.2</td>
<td>−0.151 (0.061)**</td>
<td>−0.272 to −0.029</td>
</tr>
<tr>
<td>0.3</td>
<td>−0.106 (0.048)**</td>
<td>−0.202 to −0.010</td>
</tr>
<tr>
<td>0.4</td>
<td>−0.061 (0.038)</td>
<td>−0.137 to 0.014</td>
</tr>
<tr>
<td>0.5</td>
<td>−0.017 (0.031)</td>
<td>−0.079 to 0.045</td>
</tr>
<tr>
<td>0.6</td>
<td>0.027 (0.031)</td>
<td>−0.033 to 0.089</td>
</tr>
<tr>
<td>0.7</td>
<td>0.072 (0.036)**</td>
<td>−0.001 to 0.147</td>
</tr>
<tr>
<td>0.8</td>
<td>0.117 (0.047)**</td>
<td>0.022–0.212</td>
</tr>
<tr>
<td>0.9</td>
<td>0.161 (0.059)**</td>
<td>0.042–0.281</td>
</tr>
<tr>
<td>1.0</td>
<td>0.206 (0.072)**</td>
<td>0.061–0.352</td>
</tr>
</tbody>
</table>
Moving to alternative indicators of QoG in models 3–5, we can see that the results are extremely robust throughout the empirical tests. Model 3 employs Transparency International data on perceived corruption, and again, shows that the interaction between ethno-federal states and fractionalization is strong, with this accommodationist model performing significantly better than its integrationist counterpart for diverse states. Again, the differences between the accommodationist and integrationist models widen as ethno-linguistic fractionalization increases. The results are robust irrespective of the indicator. The World Bank data and the disaggregated PRS Group indicator, measuring corruption perception only, both show strong interactive effects between the ethno-federal variable and fractionalization. Finally, model 6 excludes all OECD states in order to test if the results in models 2–5 were driven by the more ‘developed’ democracies in the sample. The developing-state model shows that the results are not sensitive to the OECD states. The interaction term is strongly significant at the ninety-nine percent level of confidence and is almost twice as large as the ethno-federal dummy coefficient, indicating that the model predicts a positive and significant effect of the accommodationist model at higher levels of fractionalization.

Briefly, the effects of the control variables are mostly as anticipated. Economic development is by far the most robust determinant of QoG in Table 2. Roughly speaking, a one standard deviation increase in GDP per capita is predicted to improve QoG measures by slightly less than half of a standard deviation of each of the four indicators (see Supplementary Appendix A1 for summary statistics). Press freedom and population both are positive and significant at the 99 percent level of confidence in models 4 and 6, which use World Bank data, yet fail to reach even the 90 percent level of significance in models 2, 3, and 5.

Figure 1 shows visually the marginal effect of fractionalization on QoG conditioned by vertical power-sharing with the standard errors for the effect of the modifying variable, in this case the presence or absence of ethno-federalism. The graph was run using the estimates from the ICRG data from model 2 in Table 2 with the full sample of democratic and partially democratic states. The solid sloping line indicates how the marginal effect of ethno-fractionalization changes depending on whether a state is ethno-federal or not. The two dash-lines are ninety-five percent confidence intervals around the marginal effect, which allow us to determine the conditions under which fractionalization has a statistically significant effect on QoG—which is whenever the upper and lower bounds of the confidence interval are both above (or below) the zero line. The two markers indicate the effect of fractionalization when the ethno-federal variable is equal to “0” and “1”. Since this is a dichotomous constituent variable, the line in between the two markers is for all practical purposes superfluous. The joint-effect of ethno-linguistic fractionalization in countries, which have adopted a more integrationist design for vertical power-sharing (mainly unitary systems) has somewhere from a null-impact
to a slight negative impact on QoG, yet the ninety-five percent confidence intervals crosses the “0” line, meaning we cannot substantively interpret this effect. However, the data show that compared with the unitary model, the joint impact of fractionalization in an ethno-federal state on QoG is strongly positive. Furthermore, the confidence interval around the point indicates the marginal effect is statistically distinguishable from zero.

In order to elucidate at what point ethno-federal constitutions actually have a positive effect on QoG in fractionalized states, I calculate the predicted effects in Table 3 according to the same model (model 2 in table 2). Table 3 also provides some context to the results in each of the models 2–6 in table 2, which show that ethno-federal states actually reduce QoG in cases of low fractionalization. The predictions of such values can be observed in table 3—in cases where fractionalization is low, 0.1 to 0.3, the effect of ethno-federalism on QoG is shown to be negative and significant. However, in the data, the only ethno-federations that have a fractionalization score lower than 0.5 are Russia and St. Kitts and Nevis. Yet Russia does reach the threshold of democracy in model 2 and St. Kitts and Nevis has no recorded score according to the PRS Group. Thus when we consider only “real world” cases in the actual sample, the predicted effects of eligible ethno-federations fall between about 0.51 and 0.85 with respect to ethno-linguistic fractionalization. The results from table 3 show that ethno-federalism has no statistically significant effect in cases where fractionalization is 0.66 or lower. Yet from 0.67 to 0.69, the effect is positive and significant at the 90 percent level, from 0.70 to 0.78 it is significant at the ninety-five percent level of confidence, and from 0.79 onward the effect is positive and significant at the ninety-nine percent confidence level. Overall, the more diverse the state, the stronger the predicted benefit that an ethno-federation produces in terms of QoG.

Conclusion

How to devise political institutions and share power in divided societies “is one of the most difficult and important issues of contemporary politics.” (Choudry 2007: 1). This analysis has contributed in evaluating two contrasting constitutional designs for heterogeneous societies—accommodationist and integrationist vertical power-sharing—focusing on their performance with respect to government quality. The results demonstrate that for a number of different QoG indicators, ethno-federations outperform integrationist constitutions at the aggregate level in cases where ethno-linguistic fractionalization is relatively high. Though little empirical work has been done previously in a large-N design, the theoretical literature predicts two competing hypotheses on the expected effect of ethno-federalism in divided societies. With many current transitional states today having high degrees of ethnic and linguistic diversity, this study serves as a valuable first step in helping
policymakers and scholars alike aid such transitioning countries with critical
decisions regarding political institutions. While it would be a daunting task for a
government to alter its linguistic or ethnic demographic make-up, institutions on
the other hand can be designed and/or changed to meet the unique needs of
a diverse (or homogenous) citizenry. Thus, one critical way in which researchers
and policy-makers can assist diverse countries with better governance is to
courage institutions that have worked well for similar countries in the past. With
the caveat in mind that some ethno-federations of course have in fact separated—
Czechoslovakia, Yugoslavia, USSR, for example—the empirical results demonstrate
for those states that have been ethno-federal and at least partially democratic, they
have clearly outperformed the more integrationist states, irrespective of the QoG.
After a certain degree of ethno-linguistic fractionalization (roughly 0.66 predicted
by the model) ethno-federalism showed to significantly outperform more integ-
rationist institutions, such as the unitary model with respect to QoG indicators.
Its effect was predicted to strengthen with higher degrees of fractionalization.

Ethno-federal constitutions have drawn much attention and controversy in
the theoretical, case study, and civil conflict literature; yet previous large-N
examinations with outcome variables such as government quality are under-
explored. While studies that evaluate whether or not ethno-federations are more
likely to erupt in civil conflict or succession are important, it is also critical that we
go beyond whether or not ethno-federations are simply stable systems in divided
societies. Whether or not such constitutional designs lead to better governance,
economic performance, or other social outputs is critical in designing constitutions
for ethnically and linguistically diverse countries.

Supplementary Data
Supplementary data can be found at www.publius.oxfordjournals.org.

Notes
I would like to thank Anette Ahrnens, Matt Golder, Paul Hensel, Sören Holmberg, Victor
Lapuente, Naghmeh Nasirtousi, Bo Rothstein, Dale Smith, Jan Teorell, and the anonymous
editors at Publius: The Journal of Federalism for their help and comments on this article.

1. These two concepts are also referred to as “majoritarianism” and “consentualism”
   (see Lijphart 1984; Choudry 2007; McGarry and O’Leary 2007).
2. Meaning the way in which the central government shares power with regional sub-
   units—i.e. provinces, states, Länder, cantons, etc.
3. These three indicators are the primary indicators of ‘quality of government’ (QoG)
   according to the Quality of Government Institute in Gothenburg, Sweden.
4. I would like to thank a reviewer for recommending this approach as opposed to using the data in panel form.

5. I would like to thank a reviewer for this suggestion. Polity IV description is found in the appendix along with each country’s respective average score for the time period in the study.

6. I would like to thank the reviewers at Publius for this recommendation.

7. The Quality of Government Institute, founded by Bo Rothstein and Sören Holmberg, is based at the University of Gothenburg in Sweden. It is a research organization committed to understanding “how and under what circumstances high quality political institutions can be created.” For more information, see: http://www.qog.pol.gu.se/


9. See www.tranparency.org


11. The Forum of Federations is a “non-profit, international organization based in Ottawa, Canada” and can be found online at: http://www.forumfed.org/en/


13. These indicators are selected according to Riker’s definition, where there are two key components to a federal state. First, there must exist two or more levels of government (central and provincial, etc.). Second, both (and/or all) levels must have constitutionally or legally recognized policy responsibilities that are independent of other levels of the government.

14. As for ‘monofederations’, such as the United States and Germany, which do not draw provincial boundaries around ethnic or linguistic lines, I run models with such states included in the ‘integrationist’ side (non ethno-federal), and robust-check models (located in the Supplementary Appendix A1) with such states are simply omitted from the analysis. However, the differences in the results are inconsequential.

15. The standard Herfindahl index is: \( H = \sum_{i=1}^{n} s_i^2 \) which simply calculates a society composed of ‘\( i \geq 2 \)’ different ethnic groups and ‘\( S_i \)’ indicates the share of group ‘\( i \)’ in the total population.

16. Additionally, I run robustness checks to include polity IV scores of any country higher than 4. The results weaken slightly with the inclusion of some less democratic/“transitional” ethno-federal states, yet do not change substantively.

17. I am grateful to Brambor, Clark, and Golder (2006) for posting their Multiple Interaction Models explanation guide in STATA online. The code for running this graph was taken from the following Web site: http://homepages.nyu.edu/~mrg217/interaction.html

References


