Not all social cleavages are created equal: On the relationship between religious diversity and party system fragmentation

Christopher D. Raymond  
Lecturer in Politics  
Queen’s University Belfast  
C.Raymond@qub.ac.uk

Key Words
Religious diversity, social cleavages, party systems

Abstract

Most studies examining the relationship between social cleavages and party system fragmentation maintain that higher levels of social diversity lead to greater party system fragmentation. However, most aggregate-level studies focus on one type of social cleavage: ethnic diversity. In order to develop a better understanding of how different cleavages impact electoral competition, this paper considers another type of social cleavage: religious diversity. Contrary to previous literature, higher levels of religious diversity provide incentives for cross-religious cooperation, which in turn reduces party system fragmentation. Using a cross-national data set of elections from 1946-2012, the results show that higher religious diversity is associated with lower levels of party system fragmentation.
Based on the seminal work by Duverger (1963), the standard model explaining the number of parties cross-nationally holds that social cleavages are the ‘engine’ driving party system fragmentation, while electoral institutions provide the ‘brakes’, limiting the number of parties in more restrictive systems (e.g. single-member district plurality systems) and allowing for greater party system fragmentation in more permissive systems (e.g. proportional representation). In line with foundational research in the social cleavage tradition (Lipset and Rokkan, 1967), this model assumes that—conditional on the permissiveness of the electoral system—more cleavage diversity leads to more parties. This model has been applied successively to a wide range of countries at both the national (e.g. Amorim Neto and Cox, 1997; Clark and Golder, 2006; Ordeshook and Shvetsova, 1994) and district (e.g. Singer and Stephenson, 2009) levels.

Because of measurement difficulties that arise when operationalising social cleavages cross-nationally, most studies focus on only one type of cleavage diversity that is (relatively) easy to operationalise: ethnic diversity. The use of ethnic diversity as a measure of total cleavage diversity has several obvious shortcomings. The most obvious is that ethnicity is but one aspect of cleavage diversity. Related, previous research has shown that the choice of measure of cleavage diversity affects the conclusions we draw about the relationship between social cleavages and party system fragmentation (Stoll, 2008). It is possible that not all cleavages have the same impact on the fragmentation of the party system. Thus, we need to explore whether other cleavages impact party system fragmentation in the same way or if the relationship between some cleavages and party system fragmentation differs from the predictions of the standard Duvergerian model.

The purpose of this piece is to address this lacuna in the literature. Specifically, this paper explores the impact of religious diversity on the number of parties cross-nationally. I argue that—due to differences in electoral incentives facing religious leaders between
religiously homogeneous and religiously diverse societies—religious diversity should be negatively associated with the fragmentation of the party system. Incorporating this argument into the now-standard Duvergerian model used to explain the interacting influences of social cleavages and electoral institutions on party system fragmentation (Amorim Neto and Cox, 1997; Clark and Golder, 2006) and testing it using a large cross-national data set of elections from countries around the world (Bormann and Golder, 2013), I find that religious diversity is associated with lower levels of party system fragmentation in restrictive electoral systems, producing increases in fragmentation only in the most permissive systems.

The rest of the paper proceeds as follows. In the next section, I explore the relationship between religious diversity and party system fragmentation in greater detail. Following that, I outline the research design employed to test the argument before moving to a discussion of the analysis. A final section concludes with thoughts for future research.

The Relationship between Religious Diversity and Party System Fragmentation

Drawing from the seminal works on the development of party systems that have informed previous studies regarding the effects of social cleavages on party system fragmentation, one could easily assume that the relationship between religious diversity and the number of parties would be positive. In their landmark study, Lipset and Rokkan (1967) identify two types of religious cleavages which arose from different elements of the national revolution. The first, a confessional cleavage, pitted minority religious denominations in the periphery against the centralising forces of established churches (as part of the larger cultural elite). Although very much intertwined with other aspects of the centre-periphery divide—namely, ethnic and linguistic divides—differences in religious traditions constituted an independent source of conflict that facilitated the development of political parties representing each side of the divide. The second, a religious-secular cleavage, pitted the churches against the nation-state, which sought to wrest control from religious authorities in
order to establish the supremacy of the secular state. In concert with the two types of cleavages arising from the industrial revolution—the urban-rural and class cleavages—Lipset and Rokkan argued that modern party systems have their roots in the centuries-old conflicts that continue to structure societies in the present. As most have come to interpret this point, this research suggests that the more cleavages there are in a society, the greater the fragmentation of the party system.

Very much in keeping with Lipset and Rokkan, Caramani (2004) shows that the development of competitive party systems in many countries was shaped by party contestation along religious lines—both confessional and religious-secular. In most cases, despite considerable social dealignment and decline in the relevance of religious cleavages (among other social cleavages; Best, 2011), Caramani’s analysis shows that religion continues to influence party competition into recent elections. Given this, one could certainly draw the conclusion that the presence/absence of religious cleavages should explain why some countries experience more/less party system fragmentation.

Following in this tradition, studies seeking to explain the number of parties cross-nationally have assumed that greater cleavage diversity yields more fragmented party systems. As noted above, with few exceptions, previous studies examining the determinants of party system fragmentation focus on ethnic diversity to the exclusion of other cleavage variables—in part due to convenience, in part due to difficulties in measuring all cleavages precisely (Stoll, 2008). By means of illustration, one need only refer to a few of the more foundational studies in this field, which show that various measures of ethnic diversity tend to produce larger party systems, conditional on the proportionality of the electoral system (Amorim Neto and Cox, 1997; Clark and Golder, 2006; Ordeshook and Shvetsova, 1994; Singer and Stephenson, 2009).

Those few studies that do include measures of religious cleavages do not focus on
religion per se. One such study is that by Powell (1982), which—although limited in territorial scope—examined the effect of Catholic minority populations on legislative party system size. Other studies examine religious cleavages alongside other prominent cleavages, with one such study finding a positive relationship between social diversity and party system fragmentation (Lijphart, 1999), with other studies finding that social diversity generally increases party system fragmentation, though such effects are non-monotonic and conditional on institutional factors (Potter, 2014; Stoll, 2013).

While this sort of attention to a broad group of cleavage variables—including religion—is a welcome departure from the overwhelming majority of the literature, assuming that all cleavage diversity produces greater party system fragmentation may not be justified. It could be that the impact of religious cleavages on the number of parties differs from the effects of other variables. For instance, in examining the robustness of the relationship between various measures of social diversity and party system fragmentation, previous research finds that variables measuring religious diversity have the ‘wrong’ sign when compared to variables measuring other aspects of cultural diversity, such as ethnicity and language (Stoll, 2008; in the case of the Netherlands, see also Lowery et al., 2013). Until now, studies have not asked whether the negative relationships observed by Stoll may in fact be genuine. Instead, most would assume—based on an understanding of Lipset and Rokkan (1967) similar to that described above—that these results are a fluke, aberrant from what is almost universally assumed to be the actual relationship between diversity and the number of parties.

Why might we expect, let alone observe, a relationship between religious diversity and party system fragmentation? If we accept the agency of party elites to articulate and create cleavages (Enyedi, 2005; Jansen, de Graaf and Need, 2012; Przeworski and Sprague, 1986; Torcal and Mainwaring, 2003)—however constrained this agency is by the social
structure of society (Raymond and Felch, 2014; Valenzuela, Scully, and Somma, 2007)—then a reason why religious diversity might be negatively associated with party system fragmentation is that elites in more diverse societies face electoral incentives to articulate religious cleavages differently than elites in less diverse societies. The incentives in more diverse societies, in turn, put downward pressure on the number of parties.

Beginning with countries with low levels of religious diversity, there are few incentives for parties to compete along religious lines, as populations in these countries will broadly be in agreement regarding the role and place of the church (singular in the case of homogeneous societies) in society. Where small religious minorities exist in these countries, small confessional parties may emerge to represent these groups. Many of these small religious minorities overlap with ethnic minorities seeking protection from the centre, and so any increase in party system fragmentation that results from such religious tensions may actually be due to the impact of ethnic cleavages. Instead of religious issues, politics in religiously homogeneous countries focus on non-religious themes (e.g. urban-rural, class cleavages, etc.).

As diversity increases, however, the size of the party system becomes constrained by tensions resulting from religious cleavages. With increasing diversity, the size of religious groups (and thus electoral and legislative power) decreases. When legislative power declines—which, in turn, decreases the chances of established religious authorities getting favourable policies passed—increasing diversity forces elites to choose among three viable strategies. One is to contest elections along confessional lines. This may take the form of two religious groups of equal size competing and creating parties along confessional lines to protect the interests of their respective denominations, or a dominant religious group competing with minority religious groups working in concert with one another to support parties formed around established versus minority religious group lines. A second is to
disarticulate religious cleavages fought along confessional lines and instead articulate a religious-secular cleavage. This strategy pits religious groups favouring traditional morality against seculars favouring greater state authority, as well as religious minority groups seeking religious freedoms and protection from discrimination. A third is to disarticulate religious cleavages favouring separate religious-based parties and instead subsume religious issues within the prevailing partisan divides. This strategy is favourable in instances where parties are more efficiently established along other cleavage lines. In these situations, religious leaders will seek to preserve their influence by finding ways in which either confessional and/or religious-secular interests map onto existing issue dimensions (e.g. class, urban-rural), and bargaining religious voters’ support for parties with similar interests in exchange for influence over issues of great import to religious voters (e.g. abortion, same-sex marriage, etc.). The result of each of these three strategies is that party system fragmentation declines.

While a fourth strategy exists, whereby religious elites contest elections separately from parties representing other cleavages, this will result in wasted effort and reduced bargaining power vis-à-vis religious issues (both confessional and religious-secular) in all but the most proportional of electoral systems. If the electoral system in not sufficiently permissive to weaken oppositional non-religious forces by promoting a high degree of party system fragmentation among non-religious (secular, as well as class, urban-rural, ethnic, etc.) parties, then it will be in the best interests of religious party leaders to consolidate along a religious-secular cleavage instead of along confessional lines. Instead, we should see a positive relationship between religious diversity and party system fragmentation in only the most permissive electoral systems: it is only in these systems where party system fragmentation will be sufficient enough that religious-secular and/or confessional parties will have equal chances of influencing policy in comparison with non-religious parties, and thus to compete with non-religious parties and/or one another simultaneously.
The logic of this argument can be seen in the case of New Zealand. Although relatively homogeneous in terms of ethnic diversity, New Zealand is fairly heterogeneous in terms of religious diversity, with its population divided primarily among Protestant, Catholic, and secular lines, though with small-but-significant Hindu, Buddhist, and Muslim minorities. Despite its religious diversity, and despite its use of a mixed-member proportional electoral system, religious-based parties have not found much success in New Zealand: though many Christian-Democratic parties have contested elections in New Zealand, few have won more than a handful of seats, with no such party winning any representation since the 2008 elections. Instead, to the extent that they feature in New Zealand politics, religious issues tend to map out onto the class cleavage, with the most religious voters supporting the right-of-centre National Party and secular voters supporting the left-of-centre Labour Party (see, e.g., Davidson, 2004). Interpreted through the framework presented here, religious elites have played within the traditional bounds of the two-party National-Labour party system because religious parties would not feature (and have not featured) very prominently in New Zealand party politics, and thus religious-secular issues would not receive much expression were religious issues expressed primarily through explicitly religious parties. As a result, party system fragmentation in New Zealand is much lower than one would expect given its level of religious diversity, with the effective number of parties contesting elections averaging just over 3.5 in the six elections since the adoption of its mixed-member proportional electoral system between 1996 and 2011 (little changed from the effectively 3.5 parties that competed in the election of 1993).

In comparison with another country of roughly similar social and institutional structures, Lithuania, the stultifying effect of religious diversity on New Zealand’s party system becomes more apparent. Both countries use mixed-member proportional electoral systems that award nearly equal shares of their seats in the proportional tier of the electoral
Moreover, both countries are, ethnically speaking, quite homogeneous according to most measures of ethnic diversity. Where the two countries differ—and differ quite significantly—is in terms of their respective levels of religious diversity. Unlike New Zealand, Lithuania is relatively homogeneous in terms of religious diversity, with Catholics comprising the overwhelming majority of the population. And in contrast to New Zealand, party system fragmentation in Lithuania is far more considerable, with the average effective number of parties in elections since the end of Communism exceeding a value of seven. Although not demonstrative, the sharp difference in religious diversity between the two countries does at least suggest the possibility that religious diversity may be negatively associated with party system fragmentation.

When compared with the Netherlands—which is a country of relatively equal ethnic and religious diversity to that seen in New Zealand—it is the Netherlands’ much more fragmented party system that requires explanation (instead of the other way around). The difference in party system fragmentation between the two countries appears due to a key difference between the two countries’ proportional electoral systems: district magnitude. While New Zealand employs single-member districts to elect about half of its seats in Parliament, the Netherlands uses one of the most proportional electoral systems in the world, electing all 150 members of the House of Representatives (or, more appropriately, Tweede Kamerlid) in a single nation-wide constituency. Because of the interaction posited between district magnitude and social cleavages in Duvergerian models of party system fragmentation (e.g. Amorim Neto and Cox, 1997; Clark and Golder, 2006; Ordeshook and Shvetsova, 1994; Singer and Stephenson, 2009), it is possible that the number of parties in the Netherlands is greater than in New Zealand only because the Dutch electoral system is sufficiently permissive for religious diversity to sustain higher levels of party system fragmentation.

Thus, there is sufficient reason for scepticism regarding the relationship between
religious diversity and party system fragmentation to warrant closer examination of this relationship. Because this relationship has received relatively little scrutiny, and because the scant work that has investigated this relationship leaves room to doubt that religious diversity produces greater party system fragmentation, further empirical study of this relationship is needed. It is to this task that I turn in the remainder of the paper.

Research Design

To determine the precise relationship between religious diversity and the number of parties, I examine a Duvergerian model of party system fragmentation that incorporates the effects of both social cleavages, electoral institutions, and the interaction of these two types of variables. In order to contribute to the already well-established literature, I incorporate the effects of religious diversity into a widely used model that is consistent with Duverger’s argument (see e.g. Amorim Neto and Cox, 1997; Clark and Golder, 2006; Ordeshook and Shvetsova, 1994). The established model takes the following form:

\[
ENP = \beta_0 + \beta_1 \log(\text{Ethnic Diversity}) + \beta_2 \log M + \beta_3 \log(\text{Ethnic Diversity}) \times \log M + \beta_4 \text{Upper Tier} + \beta_5 \log(\text{Ethnic Diversity}) \times \text{Upper Tier} + \beta_6 \text{Proximity} + \beta_7 \text{ENPRES} + \beta_8 \text{Proximity} \times \text{ENPRES} + \epsilon
\]

The dependent variable, \( ENP \), is the effective number of parties in elections for the legislature (the lower house in the case of bicameral legislatures).\(^2 \) \( \text{Ethnic Diversity} \) is measured as the effective number of ethnic groups. Following the practice of Raymond (2015), this variable is logged to account for nonlinearity in the relationship between ethnic diversity and party system fragmentation. \( \log M \) refers to the (logged) mean district magnitude, while \( \text{Upper Tier} \) measures the percentage of seats in the lower house that are awarded in upper tiers (e.g. in mixed-member systems like Germany where any distortion in the awarding of seats caused by the use of single-member districts is compensated for by awarding a portion of seats in an upper tier). Because the effects of these variables may
condition the impact of social cleavages (and vice versa), interactions between these two variables and Ethnic Diversity are created. Finally, to capture the impact of presidential systems on legislative party systems, this model includes Proximity (the time between the legislative election and the most recent presidential election), ENPRES (the effective number of presidential candidates in the most recent election), and an interaction between the two. For those readers unfamiliar with any of these variables, details regarding the construction of each variable are presented in Table 1.

To determine the relationship between religious diversity and party system fragmentation, I simply incorporate a variable measuring the effective number of religious groups into the model above. Because the received wisdom derived from Duverger suggests that the effects of religious diversity may be conditioned by properties of the electoral system in similar ways to other cleavage variables like ethnic diversity, interactions between religious diversity and LogM and Upper Tier are created. Additionally, to account for possible nonlinearity in the relationship between religious diversity and party system fragmentation similar to that observed with ethnic diversity, I use the logged functional form of religious diversity. The revised model examined in the empirical analysis below takes the following form:

\[ ENEP = \beta_0 + \beta_1 \text{Log(Religious Diversity)} + \beta_2 \text{Log(Ethnic Diversity)} + \beta_3 \text{LogM} + \beta_4 \text{Log(Religious Diversity) X LogM} + \beta_5 \text{Log(Ethnic Diversity) X LogM} + \beta_6 \text{Upper Tier} + \beta_7 \text{Log(Religious Diversity) X Upper Tier} + \beta_8 \text{Log(Ethnic Diversity) X Upper Tier} + \beta_9 \text{Proximity} + \beta_{10} \text{ENPRES} + \beta_{11} \text{Proximity X ENPRES} + \epsilon \]

The data set used to test the model above comes from Bormann and Golder (2013), who updated the landmark data set produced by Golder (2005). The original data set produced by Golder includes data from all legislative elections between 1946 and 2000 meeting minimal democratic criteria (namely, that set out by Przeworski et al., 1996); the
updated file produced by Bormann and Golder updates the sample to include elections through 2011.\textsuperscript{3} Because this data set includes a vastly larger number of countries and elections than that examined by previous research looking at the relationship between religious diversity and party system fragmentation, the analysis performed below provides a much more convincing test of the impact of religious diversity.

With the exception of \textit{Religious Diversity} (discussed below), \textit{Ethnic Diversity}, and \textit{Proximity}, all variables are taken from Bormann and Golder (2013). For the sake of comparison to previous research, I use the same measure of ethnic diversity as Clark and Golder (2006), who use the measure of ethnic fractionalization created by Fearon (2003).\textsuperscript{4} Regarding \textit{Proximity}, I use the \textit{Proximity} data reported in Golder (2005) and add data for subsequent elections and any countries not originally included in Golder (2005).

Because previous research has shown that the relationship between social diversity and the number of parties may depend on the measure used, I use three different measures of religious diversity to determine the robustness of findings using any one measure. The first measure of religious diversity is taken from Fearon and Laitin (2003), who create their measure religious diversity using data from the Central Intelligence Agency World Factbook. A second variable uses religious fractionalization data from Alesina et al. (2003). A third variable is created using data primarily taken from the Pew Research Center (2014). Because the raw data taken from this study did not disaggregate the percentage of Christians into separate denominations, I supplemented this data set with other data from Pew (2011) measuring the percentage of each country belonging to Protestant, Catholic, and Orthodox traditions.\textsuperscript{5} Descriptive statistics for these and each of the other variables in the model are presented in Table 2.

\textit{Table 2 about here}

To estimate these models, I use ordinary least squares regression. Because the
Bormann and Golder (2013) data set includes multiple elections for some countries, leading to the potential under-estimation of uncertainty in the estimated parameters, I cluster standard errors by country. I do so for three reasons. First, this follows the practice of Clark and Golder (2006); by following their practice, the results presented here can be compared to those produced in their earlier study. Second, while the data set used here includes multiple elections in some countries, time-series methods are not generally considered appropriate due to the irregular intervals between election periods both within and across countries. Third, the estimates presented below are even more conservative than those using panel-corrected standard errors (in which the consecutive number of elections is used as the unit of analysis), as well as models using bootstrapped standard errors.

Results

Parameter estimates for the three regression models are presented in Table 3. While the interpretation of interaction effects requires caution—requiring that we interpret the effect of one variable in the interaction conditional on the other—some preliminary conclusions can be gleaned from Table 3. When looking at the regression coefficients for each of the three religious diversity variables, which represent the relationship between religious diversity and party system fragmentation when LogM equals zero (i.e. countries with district magnitude of one), we see that the coefficients are negative and statistically significant. This implies that, at least in single-member district systems, party system fragmentation decreases as religious diversity increases. Additionally, the coefficients for the interaction between religious diversity and LogM in each model are positive, implying that party system fragmentation increases (or at least that the negative association between religious diversity and party system fragmentation weakens) as district magnitude increases. Finally, it is worth noting that—like in previous studies (Clark and Golder, 2006)—the interaction between religious diversity and Upper Tier is small and statistically insignificant, which indicates that upper
tiers do not have much bearing on the underlying relationship between religious diversity and party system fragmentation.

Table 3 about here

The precise estimated impact of religious diversity can be seen more clearly in Figure 1, which presents the relationships between religious diversity and party system fragmentation at different levels of LogM: zero (i.e. single-member districts), two (roughly corresponding to mean district magnitudes of 7.4) and four (roughly corresponding to mean district magnitudes of 54.6). This allows us to examine the conditional relationships between religious diversity and party system fragmentation, which in turn allows us to determine whether the negative relationship seen in single-member districts holds in more permissive electoral systems.

Figure 1 about here

As the results presented in Figure 1 show, the negative relationship seen when looking at the coefficient associated with religious diversity is not limited solely to single-member district systems. In fact, this negative relationship holds in many proportional electoral systems as well, as evidenced by the weak negative relationship in countries with mean district magnitudes of 7.4 (LogM = 2). As represented by the predicted relationship when LogM equals four, it is only as we approach higher values of LogM that the relationship becomes positive and significantly different from the relatively flatter relationship seen at LogM values of two. Given that relatively few countries have electoral systems this permissive (LogM values greater than 2.8 fall into the 90th percentile of countries in this sample), this suggests that the relationship between religious diversity and party system fragmentation is negative in all but the handful of countries with highly proportional electoral systems.

In addition to the fact that the predicted relationship between religious diversity and
party system fragmentation is negative in a large number of countries, the results in Figure 1 demonstrate that the estimated impact of religious diversity on party system fragmentation is quite powerful. Going from the lowest to the highest values of religious diversity in single-member district countries (i.e. $\log M = 0$), ENEP decreases by effectively 1.7 parties. While the discussion above shows that this effect is tempered by the permissiveness of the electoral system, the results in Figure 1 demonstrate that not only is the relationship between religious diversity and the number of parties negative, but they also suggest that religious diversity has a significant limiting effect on the fragmentation of the party system.

These findings are not due to the choice of religious diversity measure. As can be seen in Figures 2 and 3—which present the conditional relationships between religious diversity and party system fragmentation when using the Alesina et al. (2003) and Pew (2014) measures of religious diversity, respectively—the relationships presented in Figure 1 are quite robust. In both figures, the relationship between religious diversity and party system fragmentation is strongly negative in countries using single-member districts. This relationship nearly flattens out in Figure 2 for those countries where $\log M$ equals two. While the relationship becomes positive in Figure 3 for those countries where $\log M$ equals two, it is slightly positive at best. As in Figure 1, the relationship between religious diversity and party system fragmentation in Figures 2 and 3 is clearly positive only in those countries with highly permissive electoral systems.

*Figures 2 and 3 about here*

Thus, the results presented here provide considerable support for the notion that the relationship between religious diversity and party system fragmentation is negative in all but the most permissive electoral systems. In contrast to the overwhelming majority of the literature dealing with the impact of social cleavages on the development of party systems, the results presented in this section suggest that not all social cleavage diversity produces
greater party system fragmentation. Regardless of the measure religious diversity used, these results suggest that greater religious diversity constrains party development, leading to fewer—not more—parties.

Conclusion

Most studies focusing on the development of party systems have assumed that greater cleavage diversity produces more fragmented party systems. This assumes, however, that greater diversity leads to greater party system fragmentation for each type of cleavage. When testing this argument cross-nationally, however, most research has focused solely on one aspect of cleavage diversity: ethnic cleavages. With few exceptions, other cleavages like religion have been excluded from Duvergerian models of party system fragmentation.

Building upon the work of others voicing similar concerns, this paper has shown that the neglect of other cleavages and the assumption that all cleavage diversity produces greater fragmentation merit re-examination. When looking at the religious cleavage, the relationship seen here between religious diversity and party system fragmentation cross-nationally is negative and robustly so in a large number of countries. While the relationship between religious diversity and party system fragmentation becomes positive in more proportional electoral systems, the fact remains that it is only in the most proportional electoral systems where greater levels of religious diversity produce more parties. This stands in sharp contrast to the expectations of the literature.

While the relationships presented here are robust to the choice of measurement of religious diversity, this piece offers what is admittedly only a preliminary step toward a better understanding of the impact of social cleavages on the number of parties cross-nationally. Obviously, future research will need to continue to expand the focus beyond ethnic and religious cleavages. Additionally, although this paper has advanced an argument as to why we might see a negative relationship between religious diversity and party system
fragmentation, this should not—and, as the author hopes, will not—be the last word on this subject. For one, the argument presented here should be subjected to greater scrutiny to ensure that the relationship seen here is truly robust. It could be that after accounting for the impact of other cleavages, the relationship seen here may no longer hold. Even if the relationship presented here is confirmed by future research, more work is needed to flesh out the key aspects of the argument presented here and to test whether these assumptions are valid, or whether other forces better explain the relationships observed here.
References


Studies, 24(1), pp. 103-121.


**Table 1: Variable Descriptions**

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENEP</td>
<td>The effective number of electoral parties: (1/\sum v_i), where (v_i) is the percentage of votes won by the (i^{th}) party</td>
<td>Bormann and Golder (2013)</td>
</tr>
<tr>
<td>Religious Diversity: Fearon and Laitin (logged)</td>
<td>Natural logarithm of the effective number of religious groups</td>
<td>Fearon and Laitin (2003)</td>
</tr>
<tr>
<td>Religious Diversity: Alesina et al. (logged)</td>
<td>Natural logarithm of the effective number of religious groups</td>
<td>Alesina et al. (2003)</td>
</tr>
<tr>
<td>Religious Diversity: Pew (logged)</td>
<td>Natural logarithm of the effective number of religious groups</td>
<td>Pew Research Center (2011, 2014)</td>
</tr>
<tr>
<td>Ethnic Diversity: Fearon (logged)</td>
<td>Natural logarithm of the effective number of ethnic groups</td>
<td>Fearon (2003)</td>
</tr>
<tr>
<td>LogM</td>
<td>Logged mean district magnitude</td>
<td>Bormann and Golder (2013)</td>
</tr>
<tr>
<td>Upper Tier</td>
<td>% of lower-house seats awarded in an upper electoral tier(s)</td>
<td>Bormann and Golder (2013)</td>
</tr>
<tr>
<td>Proximity</td>
<td>Measures the time elapsed between presidential and legislative elections using a continuous scale ranging from 0 (for non-presidential systems or midterm elections) to 1 (legislative and presidential elections are held concurrently): see Amorim Neto and Cox (1997)</td>
<td>Golder (2005)</td>
</tr>
<tr>
<td>ENPRES</td>
<td>The effective number of presidential candidates: (1/\sum v_i), where (v_i) is the percentage of votes won by the (i^{th}) candidate</td>
<td>Bormann and Golder (2013)</td>
</tr>
</tbody>
</table>
### Table 2: Descriptive Statistics

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENEP</td>
<td>4.02</td>
<td>1.96</td>
<td>1.23</td>
<td>17.37</td>
</tr>
<tr>
<td>Religious Diversity: Fearon and Laitin (logged)</td>
<td>0.52</td>
<td>0.43</td>
<td>0.00</td>
<td>1.53</td>
</tr>
<tr>
<td>Religious Diversity: Alesina et al. (logged)</td>
<td>0.64</td>
<td>0.50</td>
<td>0.00</td>
<td>1.74</td>
</tr>
<tr>
<td>Religious Diversity: Pew (logged)</td>
<td>0.62</td>
<td>0.36</td>
<td>0.00</td>
<td>1.63</td>
</tr>
<tr>
<td>Ethnic Diversity: Fearon (logged)</td>
<td>0.51</td>
<td>0.44</td>
<td>0.00</td>
<td>2.65</td>
</tr>
<tr>
<td>LogM</td>
<td>1.36</td>
<td>1.32</td>
<td>0.00</td>
<td>6.11</td>
</tr>
<tr>
<td>Upper Tier</td>
<td>6.06</td>
<td>13.55</td>
<td>0.00</td>
<td>87.08</td>
</tr>
<tr>
<td>Proximity</td>
<td>0.29</td>
<td>0.41</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>ENPRES</td>
<td>1.27</td>
<td>1.65</td>
<td>0.00</td>
<td>8.65</td>
</tr>
</tbody>
</table>
Table 3: The Relationship between Religious Diversity and Party System Fragmentation (ENEP)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Model 1 (Fearon and Laitin)</th>
<th>Model 2 (Alesina et al.)</th>
<th>Model 3 (Pew)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religious Diversity (logged)</td>
<td>-1.11*** (0.39)</td>
<td>-1.06*** (0.25)</td>
<td>-1.55*** (0.42)</td>
</tr>
<tr>
<td>Ethnic Diversity (logged)</td>
<td>0.84** (0.31)</td>
<td>0.77** (0.30)</td>
<td>0.69** (0.30)</td>
</tr>
<tr>
<td>LogM</td>
<td>-0.06 (0.19)</td>
<td>-0.20 (0.23)</td>
<td>-0.43* (0.24)</td>
</tr>
<tr>
<td>LogM X Religious Diversity</td>
<td>0.49*** (0.16)</td>
<td>0.52*** (0.18)</td>
<td>0.88*** (0.21)</td>
</tr>
<tr>
<td>LogM X Ethnic Diversity</td>
<td>0.41* (0.22)</td>
<td>0.46* (0.24)</td>
<td>0.53** (0.23)</td>
</tr>
<tr>
<td>Upper Tier</td>
<td>0.03** (0.02)</td>
<td>0.04** (0.02)</td>
<td>0.05** (0.02)</td>
</tr>
<tr>
<td>Upper Tier X Religious Diversity</td>
<td>-0.00 (0.01)</td>
<td>-0.00 (0.01)</td>
<td>-0.01 (0.02)</td>
</tr>
<tr>
<td>Upper Tier X Ethnic Diversity</td>
<td>-0.03 (0.03)</td>
<td>-0.04 (0.03)</td>
<td>-0.06** (0.03)</td>
</tr>
<tr>
<td>Proximity</td>
<td>-3.29*** (0.48)</td>
<td>-3.10*** (0.51)</td>
<td>-3.16*** (0.46)</td>
</tr>
<tr>
<td>ENPRES</td>
<td>0.13 (0.13)</td>
<td>0.16 (0.12)</td>
<td>0.20 (0.13)</td>
</tr>
<tr>
<td>Proximity X ENPRES</td>
<td>0.90*** (0.21)</td>
<td>0.84*** (0.20)</td>
<td>0.84*** (0.19)</td>
</tr>
<tr>
<td>Constant</td>
<td>3.73*** (0.39)</td>
<td>3.93*** (0.36)</td>
<td>4.20** (0.48)</td>
</tr>
<tr>
<td>R²</td>
<td>0.35</td>
<td>0.36</td>
<td>0.36</td>
</tr>
<tr>
<td>n</td>
<td>747</td>
<td>740</td>
<td>740</td>
</tr>
</tbody>
</table>

* p < 0.10, ** p < 0.05, *** p < 0.01, two-tailed tests. Entries are regression coefficients with robust standard errors clustered by country in parentheses.
Figure 1: The Predicted Relationships between Religious Diversity (using the Fearon and Laitin measure) and Party System Fragmentation at Different Levels of District Magnitude

NB: Black lines represent the relationship between religious diversity and party system fragmentation when logM = 0 (i.e. district magnitude is 1); gold lines represent the relationship between religious diversity and party system fragmentation when logM = 2 (corresponding to mean district magnitudes of ~7.4); while red lines represent the relationship between religious diversity and party system fragmentation when logM = 4 (corresponding to mean district magnitudes of ~54.6). Dashed lines are 90% confidence intervals.
Figure 2: The Predicted Relationships between Religious Diversity (using the Alesina et al. measure) and Party System Fragmentation at Different Levels of District Magnitude

NB: Black lines represent the relationship between religious diversity and party system fragmentation when logM = 0 (i.e. district magnitude is 1); gold lines represent the relationship between religious diversity and party system fragmentation when logM = 2 (corresponding to mean district magnitudes of ~7.4); while red lines represent the relationship between religious diversity and party system fragmentation when logM = 4 (corresponding to mean district magnitudes of ~ 54.6). Dashed lines are 90% confidence intervals.
Figure 3: The Predicted Relationships between Religious Diversity (using the Pew measure) and Party System Fragmentation at Different Levels of District Magnitude

NB: Black lines represent the relationship between religious diversity and party system fragmentation when logM = 0 (i.e. district magnitude is 1); gold lines represent the relationship between religious diversity and party system fragmentation when logM = 2 (corresponding to mean district magnitudes of ~7.4); while red lines represent the relationship between religious diversity and party system fragmentation when logM = 4 (corresponding to mean district magnitudes of ~ 54.6). Dashed lines are 90% confidence intervals.
Such parties can flourish in both restrictive and permissive electoral systems. Clearly, such parties stand a better chance of winning seats in more proportional systems. But even in electoral systems using single-member districts, many of these parties may win representation because their supporters are often concentrated enough in particular constituencies to win seats that give supporters a voice in the legislature, as is the case with sectarian (and ethno-nationalist) parties in the United Kingdom.

Because the reporting of results by some electoral agencies combining the results of several smaller parties into one ‘other’ category can create uncertain estimates as to the actual effective number of parties, I follow the practice of Clark and Golder (2006) and use Taagepera’s (1997) correction to account for this uncertainty. However, the results presented here are substantively equivalent to those using the un-corrected measure of ENEP.

Following the practice of Clark and Golder (2006), a number of countries were dropped from the analysis due to institutional peculiarities that potentially limited the ability to test a Duvergerian model. Namely, countries were dropped if they used a fused vote system (where voters cast one vote that counts toward both the presidency and the legislature) or a majoritarian upper tier (which renders these countries incomparable to those using upper tiers to achieve greater proportionality).

Although the models presented here all use Fearon’s (2003) measure of ethnic diversity, we substituted this measure with other measures of ethnic diversity—namely those produced by Alesina et al. (2003) and Wimmer, Cederman, and Min (2009)—and found results that confirm those presented here.

Although tensions between Sunni and Shi’a Muslims in some countries suggests that similar effort should be put into breaking down Muslim populations along Sunni and Shi’a lines, the Shi’a populations in the countries included in the sample of countries used here were too small to have an impact of the construction of this variable.

I use LogM values of two and four primarily for illustrative purposes. However, it is worth noting that LogM values of two represent the median value of LogM for all non-single-member district systems.