

**Mixed Electoral Systems:
MMM vs. MMP:
Unique Systems or Two Sides of the Same Coin?**

*Prepared by Jim Martin
Creighton University
Graduate Program in International Relations
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Introduction

Only twenty years ago, there were two general types of electoral system: plural systems with various combinations of single or multi seat districts, and proportional systems, with closed and open list options. Although the countries within these general categories used various formulae to transform votes into assembly seats, these two formats were the status quo solution for constitutional and electoral engineers. Only one nation-state utilized a different type: West Germany. Forged out of post-World War II political wrangling and a justified fear of political extremism, the “German”, “Parallel” or “Mixed” system was described as a unique combination of plural and proportional philosophies. The mixed system voter is typically provided with two ballots. One contains a proportional party list at a national level, and the other a list of candidates elected by plural methods, usually at the district level (Shugart and Wattenberg, 2001). For the decades of the 1950’s, 60’s, 70’s and 80’s, West Germany remained the sole example of this sort of system in the democratic world.

The fall of the Soviet Union, and the unification of East and West Germany, increased the influence and propagation of mixed systems dramatically. Proto parties grew from the ashes of the fall of communism, and several former communist nations looked to mixed systems as a way to provide stability and representativeness for their emerging polities. At the same time, activists in many established western democracies began to decry the lack of fairness in plural elections which created artificial majorities time and time again (Jeffery, 1998). In the intervening years, mixed systems have become a popular choice for reformers in emerging democracies and post-communist nation-states, as well as in some established democracies. As of 2006, there are nearly thirty nation-states utilizing

this format, nation-states as diverse as New Zealand, Lesotho, Hungary, and Japan (Soudriette and Ellis, 2006).

As this has occurred, scholarly attention has begun to focus on mixed electoral systems and their institutional effects. At first, mixed systems were viewed as ideal test beds for the principles of M. Duverger, who in 1954 suggested that plural systems tend to produce two party systems and that proportional systems tend to produce systems with three or more political parties. The two tiers of mixed systems seemed to be ideal laboratories for testing such theories (Moser, 2001). However, scholars soon discerned that mixed systems were not so simple. Some mixed systems, such as Germany's, have rules that create interaction between the PR and nominal tiers (Shugart and Wattenberg, 2001). This interactive effect does not allow for isolated testing of such hypotheses, and led to current delineation of Mixed Member Majoritarian (MMM) and Mixed Member Proportional (MMP) mixed system sub-types (Ibid.).

MMM systems, which are sometimes described as “parallel” systems, have a set number of seats within each of the plural, or nominal, and proportional tiers. Occasionally, nation-states will have multi-seat districts within the plural tier, but most often, they are single seat districts, or SSDs, in which First Past the Post or FPP rules apply (Reynolds, Reily, and Ellis, 2005). In the proportional tier, the party list ballot determines the outcome within that tier alone. As indicated earlier, there is no attempt within MMM systems to offset the disproportionality of the results of an election by creating an interactive effect between the tiers (Ibid.). MMM systems are by far the most prevalent, with over twenty nations currently using this system type (Soudriette and Ellis, 2006).

In contrast, MMP systems attempt to create a more proportional or representative result by using the results of the PR tier to determine the number of seats that can be won in the SSD tier (Shugart and Wattenberg, 2001). The seats won in this way are referred to as under or over hanging seats, or realized seats. Only eight nations currently utilize the MMP format (Soudriette and Ellis, 2006).

Current scholarly literature is generally focused on the institutional effects of mixed systems as a whole on a variety of institutions, including economics (Thames and Edwards, 2006). Due to the aforementioned failure of scholars to produce predictable results by utilizing methods which isolate the two tiers within a mixed system, many scholars have now chosen to examine interactive or contamination effects caused by the two tiered system (Ferrara, 2005).

However, the literature has so far failed to address whether or not MMM and MMP systems are truly unique democratic sub-types in and of themselves, particularly in an empirical examination of their effects on the institution of political parties. Such a study would carry Herron and Nishikawa's concept of mixed systems as "theoretically and empirically distinct" to a new level of discernment (Herron and Nishikawa, 2001). That is the purpose of this thesis. Thus, I ask the question: "Are MMM and MMP systems unique democratic systems in and of themselves, or merely sub types?" It is my contention, based on a general overview of the available data sets, that MMM and MMP systems are indeed unique democratic systems, not sub-types. I expect to find that MMM and MMP systems are unique in their effects upon the institution of political parties. Furthermore, I expect to produce empirical evidence that will further the debate regarding the institutional effects of independent variables such as District Magnitude.

In the course of the thesis, I will examine electoral data from a thorough list of vetted and established democracies which currently utilize the MMM or MMP format. Specifically, I will be examining the institutional effect of format choice on the number of effective electoral and effective assembly parties. A variety of election data from elections spanning the last eighteen years will be utilized. In order to avoid spurious conclusions, a variety of alternative hypotheses will also be examined. These hypotheses will be evaluated by the implementation of various statistical tests.

The importance of this question, and my overall hypothesis, is clear: As constitutional engineers and reformers increasingly look to the mixed system as a format that could provide a stable environment within post conflict or emerging democratic states, it is vital that empirical studies of the their effects on the vital institution of political parties are available to them. If MMM and MMP systems are truly unique, and not merely sub types, it is important to be able to quantify a general predictive model of what the effects of each are on the critical institution of political parties. Furthermore, the growing body of scholarly knowledge concerning mixed systems will be aided by this work as well. Of course, this study is certainly not a comprehensive examination of the subject in its entirety. Instead, I hope to frame a small portion of the void that exists with a detailed and accurate study.

Literature Review

Mixed electoral systems are a relatively new choice available for electoral and constitutional engineers. Once restricted to the nation-state of West Germany, and viewed as an aberration by scholars, mixed systems have become especially popular over the last two decades, particularly in post-Soviet nation-states (Clark and Wittrock, 2005). However, mixed systems have also been adopted in many “first world” countries as well, including nation-states such as New Zealand and Japan. They have also been adopted at the sub-national level in Wales, and considered for national implementation by the United Kingdom (Jeffery, 1998). While mixed systems have a myriad of potential combinations, they can be characterized by an assembly elected by two ballots: one is a party list ballot guided by the tenets of proportional representation, the other a nominal, or candidate, ballot, using majoritarian or plural methodologies. (Shugart and Wattenberg, 2001). Votes become seats by a variety of balancing formulae between the two.

As their popularity has increased, mixed systems have attracted the attention of many scholars. Primarily, these works can be divided into two categories: behavioral approaches and institutional approaches. Both schools of thought employ empirical methods and formal arguments to advance their propositions; however, Behavioralists tend to examine voting behavior within mixed systems, the perception of social phenomenon such as corruption within them, or normative issues such as the legitimacy of mixed systems within the pantheon of democratically aligned constitutional or governmental choices.

Behavioral scholars interested in voting behavior often seek to examine the perceptions or values of citizens within mixed systems. Studies such as these often advocate a particular type of electoral system over another, using empirical correlations within the survey data to suggest perceived superiority of one system over another within the citizenry of a nation-state (Jeffery, 1998). Additionally, some behavioral scholars have sought to examine the role of cultural or historical factors on the perceptions of, or voting behavior within, mixed electoral systems (Barrington and Herron, 2004).

Perceptions of corruption within mixed systems are the focus of other Behavioralist scholars. These studies tend to examine mixed systems as one choice within a continuum of electoral choices, using survey data from individual citizens and politicians to determine the loci of “rent seeking behaviors” in these various systems (Chang, 2005). Other works seek to determine if corrupt political behaviors are more prevalent in one electoral system or another (Kunicova and Rose-Ackerman, 2005). Such works utilize survey data and ratings from anti-corruption think tanks such as Transparency International (Ibid.).

The democratic legitimacy of nation-states utilizing mixed systems is another popular topic for Behavioralist scholars. Such studies examine the “fairness” of various electoral systems, or the perceptions of these systems by citizens of nation-states that utilize them (Dunleavy and Margetts, 1999). These studies also utilize the “continuum” approach, examining mixed systems as one choice among many, with the goal of determining which system provides the highest score regarding popular democratic issues such as voter participation levels or perceptions of legislative responsibility (Norris, 1997).

Besides purely Behavioral approaches, there is a class of research that could be described as a hybrid of Behavioral and New Institutional perspectives. Such studies see institutions such as mixed systems as the independent variable, creating variance within other institutions such as political parties, but also consider the activities of strategic actors as a potential influencing variable (Bawn, 1993). Other hybrid approaches focus on the gate keeping role of strategic actors in nation-states considering the adoption of, or reform efforts within, a mixed system (Herron, 2004). Still others consider the influence of historical and cultural factors, along with the influence of the mixed system, as key to understanding institutional outcomes (Barrington and Herron, 2004). These studies acknowledge that institutional rules matter, but also suggest that strategic actors and other factors within them can aid or hamper reform efforts (Bawn, 1993).

To this point, the works discussed have largely considered mixed systems as one choice for electoral engineers or reformers within a larger world of constitutional and electoral choices. Although Behaviorists and hybrid approaches acknowledge that mixed systems are unique, they tend to examine voter or elite behavior within mixed systems in comparison to these behaviors in other democratic systems.

In contrast, New Institutional approaches tend to focus specifically on mixed systems themselves, examining the effects of the two-tiered system on institutions such as political parties or legislative assemblies. Initially, mixed systems were considered by New Institutional scholars simply as an unusual variant of proportional systems (Blais, 1988). However, as mixed systems became a popular choice for reformers and post-Soviet nation-states, they began to be viewed as an ideal test-bed for examining various hypotheses regarding electoral systems and the contrasting variances of single-mandate

plurality district and proportional representation systems. (Riker, 1982). Mixed systems, with their plural single member district (SMD) and proportional (PR) tiers, seemed to be ideal, isolated, laboratories for testing Duverger's Law (Moser 2001), the proposition that plural systems tend to produce around two parties in a system, and Duverger's Hypothesis, that proportional systems tend to produce three or more parties in a system (Ibid.). Each tier was believed to provide the opportunity to independently observe the simultaneous reaction various institutions to the institutional effects of each tier. Such lines of thought also suggested that Down's Median Voter Theorem could be tested against the results from each tier (Cox, 1997). The fundamental assumption was that each tier of a mixed system could be observed independently, with Downsian and Duvergerian effects expected in both the nominal and proportional tiers (Cox, 1997).

However, when time spans of electoral data from mixed systems were reviewed by scholars, unexpected results were discovered (Cox and Schoppa, 2002). Parties multiplied in the SMD tiers of some mixed systems, while declining in number in the PR tiers, leading some scholars to fiercely criticize mixed systems (Sartori, 1999). Others suggested that these results cast serious doubt on the applicability of Duverger entirely (Colomer, 2005). Other scholars sought to delve more deeply into the mechanics of each tier, hoping to explain the anomalies that called Duvergerian concepts into question (Ferrara and Herron, 2005).

Recent scholarly works have rejected the "laboratory" approach, focusing on the influence of the two tiers upon each other, and upon other institutions within mixed systems (Cox and Schoppa, 2002). These scholars examine "contamination effects" or interactive effects between the PR and SMD tiers in a mixed system (Ferrara, 2005). The

study of such effects involve empirical reviews of “personal voting” and “strategic voting” within mixed systems (Moser, 2005). Essentially, these discussions frame a substantial void in scholarly literature by suggesting that unexpected institutional effects within in some mixed systems stem from a failure to appreciate the unique characteristics of mixed systems themselves. Specifically, this void involves the empirical study of the effect of specific alignments of electoral rules within mixed systems that govern the PR and SMD tiers, and the effect of this alignment on other institutions within the nation-state. Some recent works have suggested that these alignments may have unique outcomes distinct from those of a “unified” mixed system theoretical approach.

Among these scholars, Shugart and Wattenberg (2001) have categorized mixed systems into two sub-types, each defined according to its propensity to “lean” towards majoritarian (MMM) or proportional (MMP) methodologies. However, these categorizations could be best be described as informed assumptions. While a recent study has addressed the differential effects of MMM and MMP systems on governmental spending, no research thus far has empirically examined the differential effects of these sub-types on political party systems and other institutions (Thames and Edwards, 2006).

I propose to examine the institutional effects of MMM and MMP mixed electoral systems. I ask if these designs have differential institutional effects on the institution of political parties. A comparative cross-national study of several elections spanning all current democratic nation-states using the MMP or MMM system sub-types will provide the data for this study. The reader will find a table in the Case Selection section of this thesis providing this information in an easily reviewed format.

The importance of this question is obvious. If the MMM and MMP sub-types present divergent effects on institutions such as political parties, it could be assumed that each should be defined as a unique system in and of itself. Additionally, if each sub-type were shown to be empirically unique in its outcomes, this would greatly aid scholars who have sought to identify the effects hypothesized by Duverger and to add to the body of knowledge concerning mixed systems in general.

Hypothesis Section

As the previous section demonstrated, the literature on mixed electoral systems categorizes these sub types using one of two definitions: MMM systems, in which majoritarian or pluralistic influences are thought to hold sway, and MMP systems, in which the proportional tier is believed to be more influential (Shugart and Wattenberg, 2001). MMP systems are further defined by the presence of an interactive element between the two tiers (Ibid.). The literature, however, has yet to address whether the two sub-types truly are different from one another. If so, can their institutional outputs be empirically identified and quantified, and do the institutional outputs of MMM and MMP systems produce the kinds of results that constitutional scholars would expect? This thesis concerns itself with these questions. In particular, it asks if MMM and MMP can be empirically distinguished by uncovering potentially unique effects of the particular system type on the important institution of political parties. The expectation is that the choice of mixed system sub-type will have an empirically measurable impact on the number of political parties participating in an MMM or MMP system. Furthermore, we believe that each sub type will display unique effects upon the political parties that operate within them. The approach of this section will be to examine a series of hypotheses both in support of, and potentially in opposition to, the central contention of this thesis.

As argued previously, the MMM subtype is thought to “lean” toward majoritarianism or pluralistic outcomes, with a corresponding Duvergerian logic in play (Shugart and Wattenberg, 2001). Within MMM systems, there are two “parallel” tiers of seats within the assembly: the SMD or single member district and the PR tier (Soudriette and Ellis,

2006). Each tier has a specific number of assembly seats assigned to it, and there are no compensatory seats (Ibid.). Additionally, MMM systems are thought to create patterns of two party, or two bloc coalition, electoral competition (Shugart and Wattenberg, 2001). This could imply a Duvergerian result, and would suggest that strategic voting mechanics, or the desire of individual voters to maximize their utility by not voting for a small party that has little chance of gaining a seat, may be in play (Moser, 2001). If this is the case, one could expect to see the formation of two or three electoral blocs, or coalitions of parties, within MMM electoral cycles, as parties attempt to maximize their seat share by appealing to the median voter. Such parties would also join coalitions to avoid being marginalized by strategic voting. These majoritarian outcomes would be indicative of the tenets of both Downs and Duverger. We therefore hypothesize that:

Hypothesis 1 (H1): Nation-states that are categorized as MMM will display greater levels of coalition or bloc political activity than MMP systems.

In contrast, the more complex MMP subtype is thought to “lean” towards proportional electoral outcomes. This effect, and the defining attribute of MMP systems, are electoral rules that provide for “compensatory”, “overhang”, “underhang”, or “realized” seat allocation methodologies (Soudriette and Ellis, 2006). In short, MMP systems do not have set numbers of assembly seats to be acquired by each tier; the number of seats within the nominal or proportional tiers of an assembly can rise or fall based on the voting patterns within different elections. Scholars have suggested that MMP systems avoid disproportionality more effectively than MMM systems (Moser, 2001). It has also been suggested that the difficulty of determining the precise utility of an individual vote makes strategic voting unlikely in MMP systems (Reynolds, Reily, and Ellis, 2005).

Thus, voters may “feel” free to vote for parties which may or may not have a chance to win seats. If this is the case, such an effect should be positively correlated with the numbers of parties that participate in, and win seats, in an MMP system; one would expect to see larger numbers of effective electoral, as well as effective assembly parties in these systems. Thus, we hypothesize that (H2): Nation-states that are categorized as MMP should have higher numbers of effective parties than those utilizing an MMM system, and Hypothesis 3 (H3): Nation-states that are categorized as MMP should have large numbers of electoral parties than those utilizing an MMM system.

The role of thresholds will also be examined in both MMM and MMP systems. A threshold is a legally or constitutionally mandated percentage of votes that a party must receive in order to win a seat or seats in an assembly (Taagepera and Shugart, 1989). Most mixed systems, but not all, utilize various levels of thresholds (IDEA Website, 2006). Thresholds are thought to have a limiting effect on the number of effective parties, and possibly on the number of electoral parties, in any political system, including mixed systems (Taagepera and Shugart, 1989). If thresholds were *the* causal factor in determining number of electoral and effective parties, we would expect to see a uniform effect for certain threshold percentages across both MMM and MMP systems. If such a uniform effect were revealed, this would suggest that our contentions about the unique attributes of both systems could be false. Conversely, if similar threshold levels display differentiated effects across systems, other causal factors may be at work. Such arguments are worth investigating thoroughly, and we present them as (H4): Mixed System nation-states utilizing relatively high thresholds are more likely to have lower N_v scores than those mixed system states that do not, and Hypothesis 5 (H5): Mixed System

nation-states utilizing relatively high thresholds are more likely to have lower N_s scores than those mixed system states that do not.

In a similar light, many scholars also seek to determine the influence of other system level factors upon the number of effective or electoral parties within nation-states using various electoral designs, including mixed systems. In view of the central contention about the uniqueness of the effects of the MMM and MMP sub types on the institution of political parties, one must consider the possibility of alternative or contending factors. Such alternatives must be investigated thoroughly to avoid spurious arguments. One factor that many scholars believe has a powerful influence within mixed, as well as other electoral systems, is Effective District Magnitude, or Meff (Taagepera and Shugart, 1989). Many scholars predict increasing numbers of parties in systems which have multi-seat districts, regardless of system design (Ibid). Conversely, they expect to see decreasing numbers of parties in systems that utilize single seat districts, echoing Duverger's Law (Ibid.). If the institutional effect of certain scores of national effective district magnitude creates similar effects in both MMM and MMP systems, this would attack the foundations of the central contention of this work. Again, we must investigate such possibilities, and will do so by examining Hypothesis 6 (H6): Nation-states are categorized as MMM or MMP that have high Meff scores will have higher N_s scores than those who do not.

Finally, there are some scholars who feel that Issue Dimension scores, or the number of vital national issues facing a nation-state, can create upward pressure on the number of effective parties in *any* political system by creating the need for specialized political parties to address the pressing concern of a particular segment of the polity (Taagepera

and Shugart, 1989). Although judgments regarding Issue Dimension scores are certainly of a subjective character, the argument may have merit, and thus it should be examined. If similar Issue Dimension scores positively correlate with similar numbers of effective parties regardless of MMM or MMP sub system choice, further investigation would be required and our main contentions regarding mixed systems could be weakened. Thus, I will examine Hypothesis 7 (H7): Nation-states that are categorized as MMM or MMP that have high I scores will have higher numbers of Effective Assembly Parties (N_s) than those who do not.

In the preceding paragraphs, I have presented the seven hypotheses that this thesis will examine. In the Data and Methods and Results sections of this thesis, these hypotheses will be used to form three models that will be tested using uni- and multivariate regression analysis techniques. In this way, variable relationships that are statistically significant within mixed systems should become apparent. I believe that these results of the testing of these three models will create strong arguments in support of the central contention of this paper: that MMM and MMP systems have unique institutional effects upon the number of effective electoral and assembly parties. I believe that a thorough examination of these models using electoral cycle data sets will reveal that MMM and MMP systems are indeed unique in and of themselves in the way that they effect the institution of political parties, and that system choice will be prove to be statistically significant. However, I must be sure to state that these arguments are certainly far from a comprehensive examination of the subject; there are other factors and effects in Mixed Systems that could also be examined in similar contexts. However, I hope that this work

will frame a part of the void in the literature and serve as a basis for further scholarly investigations within the rich world of mixed systems.

Case Selection

As mentioned previously, there are currently twenty nine nation-states that currently utilize a variant of mixed electoral system. These nation-states display an incredibly diverse range of political, geographic, economic, and cultural factors, so much so that it quickly became apparent that a study of all of them would be an extremely challenging undertaking. Moreover, a cursory view of a summary list of these nation-states reveals some severe problems with utilizing data from their various elections. Thus, I decided to create a special Case Selection section, in which the rationale for the cases I have chosen to examine would be outlined. In this section, the method used to select the cases will be explained fully, and various tables are included to summarize the cases that were ultimately selected for this thesis. Additionally, a review of the background information on the nation-states and electoral data sets will also be presented.

As I considered which nation-states to utilize for this thesis, it at first seemed natural to study electoral data from every election that such data could be obtained for. Such a comprehensive study would certainly be unique, and, if properly implemented, would seem to be a powerful tool in the hands of those interested in the institutional effects of mixed systems.

However, a more detailed inspection of the nation-states listed in Table 1 below that currently utilize, or have previously used a mixed system reveals several systems, which, at a purely subjective level, clearly have electoral problems. For instance, should a nation-state such as Pakistan, which used a mixed system for its assembly, be included despite the fact that its executive took power via military coup?

Table 1: Nation-states and Mixed Electoral Systems

Albania	Israel*	Russia
Andorra	Italy**	Senegal
Armenia	Japan	Seychelles
Azerbaijan	Lesotho	Slovenia
Bolivia	Lithuania	South Korea
East Timor	Mexico	Taiwan
Georgia	Monaco	Tajikistan
Germany	New Zealand	Tunisia
Guinea	Pakistan	Ukraine***
Hungary	Philippines	Venezuela

**Israel returned to pure PR in 2005*
***Italy adopted pure PR in 2005*
****Ukraine adopted pure PR in 2005*

Sources:

Shugart and Wattenberg, "Mixed Member Systems: The Best of Both Worlds?"
Soudriette and Ellis, "Electoral Systems Today: A Global Snapshot."

It was clear that a hasty subjective standard could not be applied. Thus I have chosen to use the functional level of democracy within a nation-state as an empirical standard for case selection. In order to utilize this standard, it is necessary to properly define the terms that one intends to apply. Therefore, for the purposes of this thesis, democracy shall be defined as a state of politics within a nation-state that allows for peaceful power transitions, a general lack of institutionalized political repression, a recent record of elections that are considered by the scholarly and diplomatic experts to be free, and an overall respect for the rule of law. It also must be at least plausible for ruling parties to lose power in assembly and executive elections. On the face of this informed, but admittedly still subjective, definition, it would seem that assembly results from elections in nation-states that do not acquiesce to the rule of law, or in which the assembly is not

able to at least partially influence policy matters, or in which corrupt or repressive practices are institutionalized, would not be considered democratic. The presence of such factors would create motives for assembly elections which jeopardize the organizing principles of a system of political parties, and place the concept of institutional effects into limbo. As these effects are the very ones this thesis is intended to address, including such nation-states in this study would be inappropriate.

However, as mentioned previously, a simple judgment call based on these principles would not be sound. Therefore, I have consulted the “Freedom House” ratings for each of the nation-states in question, and established a cutoff point for Political and Civil Freedoms. The rankings for the mixed system nation-states can be viewed in Table 2 below.

Table 2: Freedom House Civil and Political Freedoms Scores

Nation-state	CL Score	PL Score	Nation-state	CL Score	PL Score	Nation-state	CL Score	PL Score
Azerbaijan	5	6	Albania	3	3	Japan	2	1
Guinea	5	6	Bolivia	3	3	South Korea	2	1
Pakistan	5	6	East Timor	3	3	Monaco	1	2
Russia	5	6	Seychelles	3	3	Taiwan	1	2
Tajikistan	5	6	Lesotho	3	2	Andorra	1	1
Tunisia	5	6	Philippines	3	2	Germany	1	1
Armenia	4	5	Senegal	3	2	Hungary	1	1
Georgia	4	3	Israel	3	1	Italy	1	1
Venezuela	4	3	Lithuania	2	2	New Zealand	1	1
Ukraine	3	4	Mexico	2	2	Slovenia	1	1

Source: Freedom House Website

The reader will note that nation-states with a score of three or higher in both Civil and Political liberties are highlighted in red or blue text; those have been excluded. Those nation-states that remain were included in study. The reader will also note that the nation-

states of the Russian Federation and Ukraine are highlighted in blue. Electoral data from these nation-states will be examined in a separate “Special Cases” section in the Results section of this thesis. This examination of Ukrainian and Russian results is not only due to the amount of scholarly interest in the analysis of the electoral systems of these nation-states, but also to provide a contrasting view of the results that will be obtained from the study of electoral data from the remaining nation-states.

In order to explain the standards for applying the previously mentioned cutoff, it is necessary to briefly explain the Freedom House ratings methodology. Freedom House relies on extensive surveys of both the public and government officials within a nation-state to establish its ratings (Freedom House, 2005). A score of “1” indicates a healthy and vibrant level of freedom within the criteria being evaluated, while a score of “7” indicates a near total lack of institutional adherence to these ideals (Ibid.).

The actual definitions and methods of Freedom House are important to consider while examining my justifications for these cutoff points. I will examine the spectrum of Political Liberties ratings first, then follow up with a similar examination of the Freedom House Civil Liberties ratings. A score of “1” in Political Liberties indicates the perception of a highly functional democracy within the survey group. “Free and Fair” elections are the most important criteria. This rating also indicates that an environment of competitive political parties exists, and that minority ethnic or religious groups have access to political power through the party system (Ibid.). It also suggests that a viable political opposition exists and that this opposition is a participant in government and can win elections. A rating of “2” suggests that those surveyed perceive a lesser degree of such freedoms (Ibid.). In such instances, corruption, or the influence of internal or

external military power, is thought to hold at least some sway over the political process.

Political violence is occasionally present in such nation-states as well (Ibid.).

The same factors are present in nation-states with a rating of “3”, but are judged by those surveyed to be readily apparent. While some political groups, ethnic minorities, or geographic sectors are perceived to have at least some degree of autonomy, corruption, nepotism, military interference, or elite authoritarianism are also perceived to have had a deleterious effect on the political process as a whole (Ibid.). Elections in nation-states with a Political Liberties score of “3” are often perceived to be unfair by those surveyed (Ibid.). Nation-states with ratings of “4” or higher present ever more sinister perceptions of these factors. From these ratings, it is clear that nation-states with a Political Liberties score of “3” or higher has substantive and persistent political problems. In light of my thesis regarding the institutional effects of mixed systems on the critical democratic institution of political parties, it seems natural to err on the side of caution while consulting such ratings. Thus, I have chosen to analyze only nation-states with a rating of “1” or “2”.

With regard to the Freedom House Civil Liberties ratings, a score of “1” indicates that those surveyed perceive that freedom of association, expression, religion, and education opportunities are carefully protected by the rule of law (Ibid.). Additionally, the economy of the nation-state is also considered to be free of undue government influence. All groups within the nation feel that they have the ability to obtain freedom of opportunity (Ibid.). The citizens of nation-states with a rating of “2” perceive minor problems with some of the aforementioned civil freedoms, but do not feel oppressed by these issues. A rating of “3”, “4”, or “5” indicates increasing pressures on these freedoms, but does not necessarily

indicate that a nation-state is not in at least partial compliance with these measured criteria (Ibid.). It is possible, or even likely, that internal rebellion, terrorism, or the influence of state conflict have caused the state to take security measures which naturally restrict civic freedoms to some extent (Ibid.). Therefore, I have chosen to utilize a rating of “3” as the cutoff point for mixed system nation-states with regard to Civil Liberties. A nation-state with a rating of “3” is rated by Freedom House to be in at least partial compliance with the aforementioned standards. This rating indicates that the public of the nation-state perceives that factors outside of the political process are largely responsible for restrictions that are in place, as opposed to a blatant attempt by the executive, elites, or military powers to subvert Civil Liberties for nefarious purposes (Ibid.).

To summarize, I have chosen to examine nation-states that utilize mixed electoral systems, but also have restricted my analysis to those states that meet an established and defined series of criteria for Political and Civil freedoms. These educated, but admittedly subjective, cutoff points are the product of my judgments; any error caused by the application of these standards to this thesis is mine. I have attempted to reduce any effect this standard might cause by also examining the results of Ukrainian and Russian elections. The sixteen nation-states that remain represent a rich list; all geographic regions of the world are represented, and over five hundred and seventy five million people reside within their borders (Central Intelligence Agency, 2006). Additionally, the remaining nation-states represent a solid cross section of established and emerging democracies. Each of them presents a unique opportunity to empirically study the institutional effects of mixed electoral systems.

As noted previously, the mixed electoral system originated in post war West Germany, but in the last two decades, have been adopted by post-communist nations and emerging democracies alike across the globe (Shugart and Wattenberg, 2001). The most common form of mixed system is the Mixed Member Majoritarian, or MMM system, which is also referred to as the parallel system by some scholars (Soudriette and Ellis, 2006). MMM systems are characterized by the use of a two part ballot in their assembly elections. The first section allows a voter to elect a representative using plural means in single or multi seat districts; the second section utilizes proportional party list means to transform votes into seats (Ibid.). As the moniker indicates, the two tiers of the MMM system are parallel to each other in terms of electoral results. There are few, if any, legal provisions for the influence of the either tier upon the results of the other.

In contrast, the Mixed Member Proportional, or MMP system is characterized by the use of electoral results from the proportional tier to determine the number of seats that can be won in the plural tier. MMP voters still have a two (or three, in the case of Hungary) part ballot, but the results of the proportional tier are used to control the number of plural seats that can be won in the assembly, thus creating a more proportional or representative result (Reynolds, Reilly, and Ellis, 2005).

Table 3 presents a list of the nation-states that will be examined within this thesis. The reader will note that I have listed the system type, as well as information on the quantity of electoral data that was utilized. Additionally, the PR tier threshold is also listed for each nation. It should be noted that many mixed member states, as well as those using a pure PR system, use a threshold, or minimum percentage of the overall vote a party must receive, in an attempt to reduce the number of parties that can gain representation in an

assembly (Taagepara and Shugart, 1989). An estimate of the number of seats than can be won by electoral competition for Single Seat Districts, Multi Seat Districts, and national PR is also listed. In those instances where additional seats are also present within an assembly, these are listed also. The reader should note that the number of seats listed, and any threshold data presented, is accurate to the latest electoral data used in the study. This data is accurate to the standards of my best efforts, having been gathered from a variety of scholarly sources, or, in some cases, from official government reports. In ambiguous cases, multiple sources were obtained to verify the results.

Table 3: Nation-states and Electoral Data

Nation-state	System	Electoral Data Sets	Threshold	SSD Seats	MSD Seats	PR Seats	Other Seats	
Italy	MMM	1994, 1996, 2001	4.0%	475	0	155	0	*
Japan	MMM	2000, 2003, 2005	2.0%	300	0	180	0	
Mexico	MMM	2000, 2003, 2006	2.0%	300	0	200	0	
Germany	MMP	1990, 1994, 1998, 2002, 2005	5% or 3 SSD wins	299	0	315	0	
South Korea	MMM	1988, 1992, 1996, 2000, 2004	3.0%	253	0	46	0	
Philippines	MMM	2004	2.0%	208	0	25	0	
Hungary	MMP	1998, 2002, 2006	5.0%	176	0	146	63	**
Taiwan	MMM	2001, 2004	5.0%	168	0	41	16	***
Lesotho	MMP	2002	none	80	0	40	0	
Lithuania	MMM	2000, 2004	5.0%	71	0	70	0	
New Zealand	MMP	1996, 1999, 2002, 2005	5% or 1 SSD wins	52	0	69	0	
Monaco	MMM	2003	none	16	0	8	0	
Slovenia	MMM	2000, 2004	4.0%	2	0	88	0	****
Israel	MMM	1996, 1999	1.5%	1	0	120	0	*****
Andorra	MMM	2001, 2005	none	0	14	14	0	
Senegal	MMM	1998, 2001	2.0%	0	64	70	0	

All Seats and Thresholds are as of the latest election used in this study

**Italy adopted pure PR in 2005*

***Hungary has a 3rd tier composed of "realized" or "regional" seats*

****Taiwan has 16 seats reserved for ethnic minorities and overseas constituents*

*****Slovenia's 2 SSD seats are reserved for Italian and Hungarian minorities*

******Israel returned to pure PR in 2005*

The nation-state that has operated an MMM system for its assembly elections for the longest period of time is South Korea, having adopted this electoral format in the mid 1980s (Kim, 2000). The PR tier is relatively small; consisting of forty six seats elected by a nation wide election, and is governed by a 3% threshold (ACE, 2006). In contrast, the plural tier yields two hundred and fifty three seats elected from single seat districts (Wikipedia, 2006). The reasons for the adoption of the MMM system are not clear from my research, but South Korea represents the first nation-state outside of West Germany to adopt this system (Kim, 2000).

Another Asian nation with a relatively small proportional tier is the Philippines. The current House of Representatives has two hundred and thirty three seats, of which only twenty five are elected by proportional means, while two hundred and eight seats are elected in the plural tier (Commission on Elections, 2006). The Philippines has a 2% threshold to govern the results of the PR tier (Wikipedia, 2006). While the rationale for the 1995 adoption of the MMM system for the House of Representatives is not clear, the Philippines have not modified their system during the eleven years of its existence.

The Japanese Shugi-In adopted an MMM system two years before Taiwan in 1993. The goal of the reformers responsible for introducing and ultimately implementing this system was to reduce endemic party in-fighting and to promote an end to one party domination of the assembly (Shugart and Wattenberg, 2001). The Shugi-In employs a 2% threshold to govern the results of elections to one hundred and eight PR seats in eleven block districts (ACE, 2006). The remaining three hundred seats are elected from single seat districts (Wikipedia, 2006).

The final Asian nation in this review is Taiwan, whose Lifa Yuan, or Legislative Assembly, adopted an MMM system during its transition from authoritarian one party rule in the early 1990's (ACE, 2006). The assembly also has a large plural tier, with one hundred and sixty eight of a possible two hundred and twenty five seats being elected by plural means in single seat districts (Wikipedia, 2006). The PR tier consists of two segments: a nation wide district of forty one seats, an eight seat district reserved for those of aboriginal descent, and an eight seat district reserved for overseas Taiwanese. Taiwan enforces a 5% threshold on the results from all three of these PR districts (ACE, 2006).

In contrast, the West African nation of Senegal has a relatively pedestrian threshold of 2%. Senegal adopted an MMM system in the late 1990s, the latest in a series of constitutional reforms aimed at producing a more representative assembly (ACE, 2006). Senegal is unusual in that it elects sixty four of its Nationale Assemblee representatives from four multi seat districts using a preference vote ballot: a voter can rank order which candidates they prefer to others using this method (Gouvernement du Senegal, 2006). Senegal's PR tier consists of seventy seats elected from party lists (Ibid.).

Another nation-state which uses a preference ballot is the tiny nation-state of Monaco (ACE, 2006). Sixteen seats in the Conseil Nationale are elected by this method, with the remaining eight seats elected by means of a national PR list (Ibid.). The adoption of the MMM system in 2003 for the Conseil Nationale were apparently driven by EU requirements and reform minded royalty (Conseil Nationale Website, 2006). Monaco does not use a threshold to govern the number of parties that may win representation in its electoral system (ACE, 2006).

Nearby Andorra, nestled in a mountain valley of the Pyrenees between Spain and France, also has no electoral threshold (Ibid.). Andorra adopted an MMM system in 1997 for reasons not revealed by my research (Carr, 2006). The Consell General is composed of twenty eight seats, fourteen of which are elected by plural means in two seat parraquies, or parishes (Ibid.). The remaining fourteen seats are elected via a nation wide PR list (Counsell General, 2006).

Another relatively even balance of seats within each tier is displayed within the Lithuanian Seimas. Adopting this system in the immediate aftermath of its emergence from the fall of the Soviet Union, the Seimas has seventy one seats elected in single seat districts, with the remaining seventy seats elected by national PR list voting (Wikipedia, 2006). Lithuania utilizes a 5% threshold, and has an even higher threshold for coalitions of 7% (ACE, 2006).

In contrast, the Mexican Camara de Diputados, or Chamber of Deputies, has a relatively low threshold of 2% (ACE, 2006). However, it has a fairly balanced ration of PR versus Plural seats: three hundred elected in single seat districts, and two hundred elected in five multi-state, forty seat constituencies (Wikipedia, 2006). One unusual aspect of the Mexican electoral system involves a rule that a party cannot gain more seats overall than 8% over its PR allocation (Reynolds, Reilly, and Ellis, 2005). This rule, in effect, prevents any one party from gaining more than three hundred seats. It will also be apparent from a review of the table in the *Data and Methods* section that this rule has some unusual effects on N_v scores. Some scholars have suggested that because of this Mexico's electoral system should be classified as an MMP system (Ibid.). However, since there are no other rules in effect that provide for an interactive effect between the

tiers, and the lack of any other scholarly opinions which support this categorization, I have chosen to adopt the majority view of Mexico as an MMM system (Soudriette and Ellis, 2006).

Italy also chose to adopt an MMM system during the late 1990s. During the duration of the system, the Italian Camera dei Deputati elected a plural tier of four hundred and fifteen seats from single seat districts, with one hundred and fifty five seats allocated by closed list PR (Shugart and Wattenberg, 2001). The threshold for the PR tier was calculated by an extremely complex method called “Scorpora” that was intended to reduce the number of political parties that would ultimately be elected to the assembly (Ibid.). Although a complete explanation of Scorpora is not possible without an expert understanding of the Italian language, it is generally accepted that it represented a 4% threshold (Wikipedia, 2006). The adoption of the Italian MMM system was intended to reduce the number of political parties, with the ultimate goal of ending years of conflict within the assembly (Shugart and Wattenberg, 2001). Ultimately, however, this solution was deemed unsatisfactory, and Italy adopted a “pure” PR system in 2005 (Wikipedia, 2006).

Another nation-state that flirted with an MMM system, but did not permanently adopt it, is the Middle Eastern state of Israel. The Knesset adopted an extreme variant of MMM in 1992, hoping to reduce the number of parties and break deadlocks within the assembly (Shugart and Wattenberg, 2001). Previously, Israel had indirectly elected its executive; however, the new system allowed for the direct election of the prime minister in a simultaneous Knesset election. A 1.5% threshold was also adopted (Wikipedia, 2006). In effect, this created a single seat elected by plural means, with the remaining one hundred

and twenty seats selected by PR (Ibid.). As indicated previously, Israel subsequently abandoned this system for its most recent elections (Ibid.).

Another relatively extreme version of the MMM system is the one used by the Slovenian Drzani Zbor, or National Assembly. Initially adopting a pure PR system after breaking from Serbia after a nine day war in 1991, Slovenia initially adopted pure PR for its assembly elections (Wikipaida, 2006). However, mounting ethnic tensions with its Hungarian and Italian minorities caused the adoption of the current system in 2000 (Republic of Slovenia, 2006). Eight-eight of its members are elected via a national PR list, while the remaining two seats are elected by single transferable vote in two special ethnically based districts (Ibid.). Slovenia utilizes a 4% threshold to govern its PR tier elections (ACE, 2006).

To summarize, the MMM, or parallel, system is the most commonly used version of mixed system present in the world today. It has been a popular choice for emerging or post conflict nation-states. While the exact configuration of the system has been a matter of debate within those nations that have chosen it, MMM remains a popular choice for emerging and post conflict states, as well as for those seeking to reduce “hyper representativeness” or a multiplication of small parties causing deadlock within assemblies (Taagepera and Shugart, 1989). It is thought to allow small parties to gain representation, but also to protect the strengths of large parties (Shugart and Wattenberg, 2001).

In contrast, the MMP system is thought by many scholars to better preserve the representative aspect of electoral elections by essentially restricting the plural result and making these results conform to the proportional outcomes of the PR tier (Ibid.). It is

interesting that three of the four nation-states in this thesis also use this system in conjunction with high thresholds; a tactic generally intended to reduce the number of small parties that can gain representation (Taagepera and Shugart, 1989). It is also notable that the MMP system is much less prevalent than the MMM system, probably due to the complex nature of its legally mandated proportional effects (Reynolds, Reilly, and Ellis, 2005).

The nation-state of Germany was for many years the only state to utilize a mixed system, adopting it as the result of hard nosed bargaining between the emerging political parties in the West after the end of World War II (Shugart and Wattenberg, 2001). For many years known as the “German” system, the Bundestag is governed by a two ballot system that also allows for the results of the proportional tier to affect the number of seats in the plural tier (Ibid.). This causes a fluctuating number of seats within the Bundestag, and is a defining characteristic of the MMP system (Ibid.). The current Bundestag has six hundred and fourteen seats, with approximately two hundred and ninety nine single seat district seats and three hundred and fifteen seats elected by proportional party lists. However, this is not always the case: if a party wins more combined SSD and PR seats than it is entitled to according to the results of the PR tier, it is not awarded those seats. Contrastingly, the opposite effect is also true: if a party were to win less combined seats than it would be due according to the PR results, it will be awarded those seats. These seats are referred to as “overhanging” or “underhang” seats, respectively (Ibid.). As indicated previously, Germany also utilizes a high PR tier threshold of 5%. This threshold is modified somewhat by the presence of a rule that allows a party that gains three single seat district wins to gain representation (ACE, 2006).

Another nation-state that modifies a 5% threshold by allowing for a district win to produce representation is New Zealand (ACE, 2006). Adopted in 1993 after mounting public frustration with artificial majorities and an unresponsive legislature reached a boiling point, the parliament adopted a MMP system (Shugart and Wattenberg, 2001). The plural tier consists of approximately fifty one seats, and the PR party list tier consists of around sixty nine seats, both elected with a two part ballot (Ibid.). As with other MMP systems, the proportional results are used to determine the overall number of seats that can be won by parties participating in elections (Ibid.). Additionally, New Zealand frequently redraws district lines based on population shifts, adding and subtracting seats from the total assembly in this way also (Ferrara, 2005).

The land locked South African nation of Lesotho adopted an MMP system in 2002 (EISA, 2006). Lesotho's National Assembly had been seeking to create a more representative legislature for several years, especially in the wake of bloody political unrest in 1998 following charges of election fraud (Wikipedia, 2006). As of the latest election, the National Assembly has one hundred and twenty seats, with a current ratio of eighty single seat district seats and forty PR seats (Carr, 2006). Unfortunately, as Lesotho has held only one election under this new system, no variance can be recorded in the PR versus Plural tiers yet.

The final MMP system I will examine is that utilized by Hungary. Adopted after the fall of the communist regime in the early 1990's, the Hungarian system is widely considered to be exceptionally complex, having three tiers instead of the two typical of mixed systems, with a corresponding three part ballot (Wikipedia, 2006). The National Assembly, or Orszaggyules, is currently composed of three hundred and eighty five seats

(Hungarian Ministry of the Interior, 2006). Approximately one hundred and seventy six are elected from single seat districts, and one hundred and forty six from a national PR list (Ibid.). However, an additional tier of approximately sixty three tiers are elected regionally and used to directly create the proportional effect indirectly caused by the interactive effects of other MMP systems (Ibid.). As with Germany and New Zealand, the Hungarian system has a high threshold of 5% for the PR tier (ACE, 2006).

In summation, I have chosen sixteen nation-states for detailed analysis. Twelve of these nation-states utilize or have utilized an MMM, or Mixed Member Majoritarian, system. This system has a two part ballot, with corresponding numbers of plural and proportionally allocated seats within their assemblies that are not subjected to any interactive effects. The remaining four use an MMP, or Mixed Member Proportional system, with two or three tiers of plural and proportional seats and a corresponding two or three part ballot and the mandated use of proportional results to govern the overall composition of the assembly. All of the nation-states meet a standard of relatively stability in terms of Civil and Political freedoms, and have established track records of free elections (Freedom House, 2005). The data obtained in my research is from a variety of reputable scholarly or governmental sources, and is as accurate as is possible. In ambiguous cases, a second or third source was sought to eliminate or reduce confusing reports. A full reporting of these electoral data sets, and the methods used to test my hypotheses, can be found in the *Data and Methods* sections which follows.

Data and Methods

As indicated previously, it is my contention that Mixed Member Majoritarian electoral systems are distinct from Mixed Member Proportional Systems in terms of their institutional effects on political parties. In the Hypothesis Section of this thesis, I presented a variety of hypotheses that will serve as tests of this overall contention. In order to initiate the process of empirically testing these hypotheses, I will present a review of the three dependent and four independent variables presented in each. This section will discuss each variable in turn, paying close attention to the sources of the data and the criteria used to measure each. Furthermore, the average, median, and mode of each of the data sets will be examined, and a discussion of any outlying cases will be presented. Finally, in the methods subsection, the correlations that I expect to find will be reviewed, along with the specifics of the statistics that I have used to discover the presence or absence of these correlations.

The first dependent variable to be examined is Electoral Blocs. Electoral Blocs are groups of parties that form a single electoral unit prior to an election, and presumably function as a single voting bloc during legislative activities. Electoral Blocs provide small, like-minded parties the opportunity to band together and gain representation in an assembly. Most nation-states require that electoral blocs formally identify themselves as such, and their presence is generally easy to quantify during a review of election cycle data. In order to provide a statistic that can be related to others, I chose to use the percentage of parties in an electoral cycle that were part of an electoral bloc. This data is presented in the Tables 4 and 5 below. Table 4 presents the data collected for MMP

nation-states and electoral cycles. As noted, only Hungary displayed the presence of electoral bloc activity in the elections reviewed.

Table 4: Electoral Blocs In MMP Systems (% of Parties Participating in an Electoral Bloc)

New Zealand 1996	0.00%
New Zealand 1999	0.00%
New Zealand 2002	0.00%
New Zealand 2005	0.00%
Germany 1990	0.00%
Germany 1994	0.00%
Germany 1998	0.00%
Germany 2002	0.00%
Germany 2005	0.00%
Hungary 1998	0.00%
Hungary 2002	28.57%
Hungary 2006	33.30%
Lesotho 2002	0.00%

**Percentage of Parties in an Electoral Bloc Per Election*

Table 5: Electoral Blocs in MMM Systems (% of Parties Participating in an Electoral Bloc)

Philippines 2004	16.66%	Andorra 2005	0.00%
Senegal 1998	62.50%	Italy 1994	16.66%
Senegal 2001	42.85%	Italy 1996	31.57%
Israel 1996	0.00%	Italy 2001	61.11%
Israel 1999	31.25%	Slovenia 2000	8.30%
Lithuania 1996	29.41%	Slovenia 2004	22.20%
Lithuania 2000	29.41%		
Lithuania 2004	28.57%		
Mexico 2000	69.23%		
Mexico 2003	18.18%		
Mexico 2006	55.55%		
Japan 2000	0.00%		
Japan 2003	0.00%		
Japan 2005	0.00%		
South Korea 1988	0.00%		
South Korea 1992	0.00%		
South Korea 1996	0.00%		
South Korea 2000	0.00%		
South Korea 2004	0.00%		
Monaco 2003	66.66%		
Taiwan 2001	16.66%		
Taiwan 2004	28.57%		
Andorra 2001	0.00%		

Table 5 displays the percentage of parties that participated in electoral blocs during a collection of electoral cycles from MMM nation-states. The data from MMM elections reveals many more electoral coalitions relative to elections than the MMP election data.

Forty two cases were used to create these tables, a collection of data assembled from a wide range of governmental and scholarly sources. Occasionally, the data sets of independent electoral commissions were also consulted. All data was double checked using two sources to ensure accuracy. The average, median, mode, and range of electoral bloc percentages are displayed in Table 6 below.

Table 6
Frequency Table for Electoral Blocs

N	42
Mean	0.166
Median	0
Mode	0
Range	0.6923
Minimum	0
Maximum	0.6923

The relatively low mean of .166 and the mode of 0 indicate that electoral blocs are frequently not present in Mixed Member Systems. The maximum percentage of parties in an electoral bloc was presented by the assembly election of 2000 in the nation-state of Mexico, but it should be noted that several other nation-state electoral cycles also presented percentages in the high fifties and low sixties.

The next dependent variable to be reviewed is Effective Electoral Parties, or N_v . N_v is a general measure of the number of parties that participate in an electoral cycle and gain votes, but do not necessarily win seats in any assembly (Taagepera and Shugart, 1989). The results used to calculate N_v were determined by utilizing electoral data sets

collected from the previously mentioned scholarly, governmental, and election commission sources. The method of tabulating N_v is outlined here:

Effective Electoral Parties

$$N_v = 1/\sum pvi^2$$

In this calculation, pvi is the percentage of the vote that each party receives for the i^{th} party, squared. These results are summed and used as a divisor versus 1 to gain the overall number of Electoral parties participating in any given election. Table 7 below presents all of the N_v scores available for these data sets. It should be noted that it proved impossible to determine N_v for the nation-state of Monaco due to the use of a unique type of preference ballot, so for the purposes of these thesis this case data was coded as “missing” during the actual regression analyses that follow this section. The data collected displays a fairly normal distribution, with the notable outlying cases of Israel 1999 and Lesotho 2002. These outlying cases are identified in Table 8 presented below. The relatively close grouping of mean, median, and mode in this frequency indicate that these statistics present a fairly accurate picture of the data as a whole. As previously noted, the Israeli Knesset election of 1999 presents an outlying case.

The third, and possibly most important dependent variable utilized in this thesis is Effective Assembly Parties, or N_s . N_s is a rating score of parties that actually wins seats in the legislature as the result of the electoral process. Mixed systems, with their two tiers, provide somewhat of a challenge in determining Effective Parties, as some parties

choose to participate only in one of the two tiers, while some participate in both. This requires the researcher to obtain results from both tiers, a task that can occasionally be somewhat challenging, and even impossible with some nation-states. Additionally, past scholarly works have tended to operationalize this variable using calculations that were inherently designed for distinctly plural or proportional systems, respectively. It has been suggested by some scholars that this method tends to under-report the number of

Table 7
Effective Electoral Parties (N_v)

Table 8
Frequency Table for N_v

Nation-state	Election Year	System Type	N_v	N	41	
New Zealand	1996	MMP	4.31	Missing	1	
	1999	MMP	3.86	Mean	3.929	
	2002	MMP	4.14	Median	3.571	
	2005	MMP	3.044	Mode	2.688	
Germany	1990	MMP	3.736	Range	8.356	
	1994	MMP	3.731	Minimum	2.159	<i>(Lesotho 2002)</i>
	1998	MMP	3.685	Maximum	10.515	<i>(Israel 1999)</i>
	2002	MMP	3.865			
Hungary	2005	MMP	4.529			
	1998	MMP	4.559			
	2002	MMP	2.775			
	2006	MMP	2.688			
Lesotho	2002	MMP	2.159			
Philippines	2004	MMM	4.559			
Senegal	1998	MMM	2.775			
Israel	2001	MMM	2.688			
	1996	MMM	5.871			
Lithuania	1999	MMM	10.515			
	1996	MMM	5.68			
	2000	MMM	4.399			
Mexico	2004	MMM	5.727			
	2000	MMM	3.163			
	2003	MMM	3.406			
Japan	2006	MMM	3.425			
	2000	MMM	5.093			
	2003	MMM	2.288			
South Korea	2005	MMM	2.269			
	1998	MMM	3.571			

	1992	MMM	3.521
	1996	MMM	4.219
	2000	MMM	3.289
	2004	MMM	3.31
Monaco	2003	MMM	"missing"
Taiwan	2001	MMM	3.556
	2004	MMM	3.355
Andorra	2001	MMM	2.914
	2005	MMM	3.012
Italy	1994	MMM	4.761
	1996	MMM	2.824
	2001	MMM	2.673
Slovenia	2000	MMM	5.1601
	2004	MMM	5.988

Table 8-1

Frequency Table for N_v in MMP Nation States

N	13
Mean	3.621
Median	3.736
Mode	2.159
Range	2.4
Minimum	2.159
Maximum	4.559

Table 8-2

Frequency Table for N_v in MMM Nation States

N	28*
Mean	4.071
Median	3.473
Mode	2.269
Range	8.246
Minimum	2.269
Maximum	10.515

*note missing case of Monaco

independent parties within mixed systems (Clark and Falvey, 2005). However, recent scholarly works regarding mixed systems have produced a new method for determining Electoral and Effective Parties, utilizing nation wide percentage results for each party to

determine the overall effective party score (Ibid.). This data was then processed through the following equation:

Effective Assembly Parties

$$N_s = 1/\sum p_i^2$$

In this calculation, p_i is the percentage of seats that each party actually wins in the assembly for the i^{th} party, squared. These results are summed and used as a divisor versus 1 to gain the overall number of Effective parties participating in any given election.

As with the previously mentioned cases, this data was gathered from a variety of scholarly and governmental sources, as well as the occasional use of data sets from independent electoral commissions. These data sets were double checked against each other to ensure accuracy. Table 9 below presents the N_s scores for all of the collected mixed system nation-states electoral cycles. Forty two cases are presented in this table from all sixteen mixed system nation-states. Outlying cases are presented by the case of Monaco 2003 (1.28 N_s) and Israel 1999 (8.96 N_s). These statistics are reported in Table 10 below, along with the mean, median, and mode for this frequency distribution.

Table 9
Effective Assembly Parties (N_s)

Nation-state	Electi on Year	System Type	N _s	Nation- state	Election Year	System Type	N _s	
New Zealand	1996	MMP	3.822	Monaco	2003	MMM	1.28	
	1999	MMP	3.489		Taiwan	2001	MMM	3.496
	2002	MMP	3.203			2004	MMM	3.31
	2005	MMP	3.004	Andorra	2001	MMM	2.72	
Germany	1990	MMP	3.1826			2005	MMM	2.283
	1994	MMP	3.455	Italy	1994	MMM	5.083	
	1998	MMP	3.309			1996	MMM	4.152
	2002	MMP	3.383			2001	MMM	3.297
Hungary	2005	MMP	4.11	Slovenia	2000	MMM	4.885	
	1998	MMP	4.14			2004	MMM	4.93
	2002	MMP	2.19					
	2006	MMP	2.415					
Lesotho	2002	MMP	2.142					
Philippines	2004	MMM	6					
Senegal	1998	MMM	1.548					
	2001	MMM	1.772					
Israel	1996	MMM	5.58					
	1999	MMM	8.962					
Lithuania	1996	MMM	3.5223					
	2000	MMM	4.016					
	2004	MMM	5.428					
Mexico	2000	MMM	2.43					
	2003	MMM	2.776					
	2006	MMM	3.024					
Japan	2000	MMM	3.03					
	2003	MMM	2.598					
	2005	MMM	2.273					
South Korea	1988	MMM	3.536					
	1992	MMM	2.721					
	1996	MMM	3.161					
	2000	MMM	2.391					
	2004	MMM	2.363					

Table 10
Frequency Table for Effective
Assembly Parties (N_s)

N	42	
Mean	3.438	
Median	3.25	
Mode	1.28	
Range	7.682	
Minimum	1.28	(Monaco 2003)
Maximum	8.96	(Israel 1999)

Table 10-1
Frequency Table for N_s in MMP Nation States

N	13
Mean	3.218
Median	3.309
Mode	2.142
Range	1.998
Minimum	2.142
Maximum	4.14

Table 10-2
Frequency Table for N_s in MMM Nation States

N	29
Mean	3.536
Median	3.161
Mode	1.28
Range	7.682
Minimum	1.28
Maximum	8.962

The four independent variables used in the empirical analyses presented in this thesis will be reviewed in the following narrative. The first of these independent variables is System Type. System type is a relatively easy variable to define; either a nation-state utilizes the MMM electoral framework, or it uses the MMP system. Categorizing electoral systems was a relatively simply question solved by consulting various scholarly works on Mixed Systems or electoral systems (Soudriette and Ellis, 2006) and (Shugart and Wattenberg, 2001). Only the previously mentioned example of Mexico raised a hint of controversy, but ultimately I decided that the “majority opinion” that categorizes Mexico as an MMM system would be the most acceptable (Reynolds, Reilly, and Ellis, 2005). This data is summarized in Table 11 below.

Table 11
System Type Frequency Table

N	42
MMP	13
MMM	29
Mean	1.69
Median	2
Mode	2
Range	1
Minimum	1
Maximum	2

Thirteen sets of MMP electoral data were used for this data set, with twenty nine sets of MMM elections. MMP was coded as “0” while MMM was coded as “1”. As one would expect, the mean of .69 and the mode of 2 are indicative of the predominant amount of MMM data.

The next independent variable utilized in this thesis is Threshold Percentage. Thresholds are a cutoff percentage used to govern the proportional tier results of an election. This is generally believed to produce the effect of reducing the number of parties than can win seats in an assembly (Taagepera and Shugart, 1989). Thresholds are also generally believed to reduce the number of parties that will deem it practical to even participate in an election by making seat victories unlikely for small parties (Ibid.). The percentage thresholds for each electoral system were uncovered by consulting the previously mentioned scholarly and governmental sources; as with previous statistics, multiple sources were sought to confirm these data sets. This data is presented in Table 12. Again, forty two elections were examined. A small, but not unsubstantial number of nation-states utilize the highest threshold of five percent, with a similar number using no threshold whatsoever. The remaining nation-states used a variety of thresholds that

produce a mean of .032619. The median of .030 reflects the distribution described previously.

Table 12
Frequency Table for Threshold Percentage (T)

N	42
Mean	0.032619
Median	0.03
Mode	0.05
Range	0
Minimum	0
Maximum	0.05

Again, forty two elections were examined. A small, but not unsubstantial number of nation-states utilize the highest threshold of five percent, with a similar number using no threshold whatsoever. The remaining nation-states used a variety of thresholds that produce a mean of .032619. The median of .030 reflects the distribution described previously.

The next independent variable to be reviewed is Effective District Magnitude, or Meff. District Magnitude, or M, a score which rates the overall size of the districts in a nation-state in terms of seats, is thought be many scholars to be the most important single factor in determining how many parties will participate in, and ultimately gain seats, in an assembly election within any sort of democratic electoral system (Taagepera and Shugart, 1989). Effective District Magnitude (Meff) combines this score with an algorithm including T scores, or thresholds. Measuring this score for mixed electoral systems also requires a unique calculation exercise, which is displayed below.

Effective District Magnitude

$$\text{Meff} = \frac{\sum_{i=1}^N (S_i \times M_i)}{S}$$

Si represents the total number of seats that can be won within a tier. **Mi** represents the influence of the threshold within a system, and is determined by dividing .5 by the percentage threshold used. In a mixed system calculation, this process is repeated for both the plural and proportional tiers, and then the results are summed, then divided by the total number of seats within the assembly, or **S**. This calculation not only allows the researcher to include both the proportional and plural district scores, but also allows for the influence of **T**, or any thresholds that may be used (Falvey, 2004). Finally, it should be noted that in those cases where a threshold was not present, this calculation of **Mi** was left out of the overall equation.

As is customary with District Magnitude Data, the Meff scores were also computed to natural log. Table 13 displays the sixteen Mixed System nation-states, their corresponding electoral cycles, and the natural log Meff scores for each. As with previous data sets, these statistics were collected from a variety of scholarly and governmental sources, and were double checked against multiple sources to ensure accuracy. Table 14 reports the frequency data for the natural log Meff scores. The relatively similar mean and median scores indicate a fairly standard distribution of data. Once again, the nation-state of Israel provides the maximum score of 3.496.

The final independent variable to be examined in the context of this thesis is the variable of Issue Dimensions. Issue Dimension scores, or **I**, are a relatively simple calculation, albeit one fraught with subjective judgments. This score is determined by ranking the severity of each of seven issues of vital national importance (Taagepera and Shugart, 1989). For instance, Socioeconomic issues, or rich versus poor, are one example of this sort of vital national issue. Other factors such as Religious, Cultural Issues,

Table 13
Natural Log Meff Scores

Nation-state	Nat Log Meff
New Zealand 1996	1.635
New Zealand 1999	1.796
New Zealand 2002	1.574
New Zealand 2005	1.591
Germany 1990	1.711
Germany 1994	1.724
Germany 1998	1.7209
Germany 2002	1.71
Germany 2005	1.726
Hungary 1998	1.591
Hungary 2002	1.591
Hungary 2006	1.772
Philippines 2004	1.272
Senegal 1998	2.988
Senegal 2001	3.003
Israel 1996	3.496
Israel 1999	3.496
Lithuania 1996	1.699
Lithuania 2002	1.699
Lithuania 2004	1.699
Mexico 2000	2.36
Mexico 2003	2.36
Mexico 2006	2.36
Japan 2000	2.302
Japan 2003	2.302
Japan 2005	2.302
S. Korea 1988	2.431
S. Korea 1992	1.479
S. Korea 1996	1.223
S. Korea 2000	1.289
S. Korea 2004	1.223
Monaco 2003	2.197
Taiwan 2001	1.22
Taiwan 2004	1.22
Andorra 2001	0.405
Andorra 2005	0.405
Italy 1994	1.342
Italy 1996	1.342
Italy 2004	1.342
Slovenia 2000	2.282
Slovenia 2004	2.282

Table 14
Frequency Table for Natural Log Meff Scores

N	42
Mean	1.79
Median	1.704
Mode	1.342
Range	3.496
Minimum	0
Maximum	3.496

Urban/Rural issues, Regime Support, Foreign Policy, and Post Modern Issues are also scored to create an overall total issue score for a nation-state. Each of these issues are scored on a scale of 0 for no relevance, .5 for medium salience, and 1 for vital salience.

These scores are summed, and then 1 is added to the total to produce the final score, which, in theory, should equal N_s , or Effective Assembly Parties (Ibid.). Thus, the entire equation is as follows:

Issue Dimensions (I) $N_s=I+1$

As previously indicated, it is impossible to produce a truly empirical result for the approximation of the influence of national issues. Additionally, little scholarly advice concerning such a method exists. Thus, it is necessary to consult qualitative analyses in order to attempt to create a quantitative score. I chose to consult the Central Intelligence Agency's World Fact Book to enrich my research on these issues within each country, as well as to add scores to any other nations for which there were copious amounts of journalistic reports about the salience of the issue in question within a particular country. My judgments regarding these issues are, of course, mine alone. Table 15 displays the sum total of these scores for the sixteen nation-states and their forty two election cycles.

Table 16 presents the frequency data for this variable. The maximum I score of “4” was presented by the nation-state of Israel, while the minimum score of “0” was observed in both Monaco and Andorra. The mean of 1.297 presents a relatively accurate average result, confirmed by the mode result of 1.

Table 15
Issue Dimension Scores (I) and Effective Assembly Parties (N_s)

Nation-state	1	2	3	4	5	6	7	I Score	I+1
Andorra	0	0	0	0	0	0	0	0	1
Germany	0	0	0.5	0	0	0	0.5	1	2
Hungary	0.5	0	0.5	0	0	0.5	0	1.5	2.5
Israel	0	1	1	0	1	1	0	4	5
Italy	0.5	0	0	0.5	0	0	0	1	2
Japan	0.5	0	0	0	0	0.5	0	1	2
Lesotho	1	0	0	1	0.5	0	0	2.5	3.5
Lithuania	0	0	0.5	0	0.5	0	0	1	2
Mexico	0.5	0	0	0.5	0.5	0	0	1.5	2.5
Monaco	0	0	0	0	0	0	0	0	1
New Zealand	0	0	0.5	0	0	0	0.5	1	2
Philippines	0.5	0.5	0	0	0.5	0.5	0	2	3
Senegal	0.5	0	0	0	0.5	1	0.5	2.5	3.5
Slovenia	0	0	0.5	0	0	0.5	0.5	1.5	2.5
South Korea	0	0	0	0	0	1	0	1	2
Taiwan	0	0	0	0	0	1	0	1	2

Key: 1: Socioeconomic, 2: Religious, 3: Cultural/Ethnic, 4: Urban/Rural
5: Regime Support or Insurgency, 6: Foreign Policy, 7: Post Modern

Table 16
Issue Dimension Scores Frequency Table

N	42
Mean	1.2976
Median	1
Mode	1
Range	4
Minimum	0
Maximum	4

To summarize, I have now completed the review of the key terms used in this thesis, and have explained how I have operationalized these terms. Additionally, I have

discussed the sources of the data used in this analysis, and the measurement standards applied to both the independent and dependent variables that I have tested. Furthermore, I have presented the mean, media, and modes present in the data sets, as well as the range of each data set. Finally, I have discussed the outliers present within the data. I have also presented a number of tables displaying these data sets and discussed each in turn.

At this point, I will examine the methods used to determine the presence of correlative factors in the relationships of the various independent and dependent variables present in each hypothesis. The specific types of statistical tests used will be listed, along with the levels of statistical significance that I have decided will be acceptable to prove or disprove each hypothesis. Finally, I will review what correlations I expect to find.

As indicated in the hypothesis section of this paper, my primary hypotheses revolve around the use of Effective Electoral Parties (N_v) and Effective Assembly Parties (N_s) as dependent variables. These variables are to each be tested against the following independent variables: System Type, Threshold Percentage, Effective District Magnitude (Natural Log), and Issue Dimensions. Additionally, I also have tested another dependent variable: Electoral Bloc percentage versus System type as an independent variable. N_v and N_s were each independently tested against the set of independent variables using multivariate regression techniques. The general concept for these regression analysis models is listed below:

$$y = a_1x_1 + a_2x_2 + a_3x_3 + a_4x_4 + _ \text{ (error term)}$$

Conversely, the Electoral Bloc percentage as a function of System Type model was tested using univariate regression techniques. Thus, the general equation for this model is:

$$y = a_1x_1 + \text{(error term)}$$

In the case of the multivariate regressions run on Model 2 (N_v) and Model 3 (N_s), unstandardized and standardized betas will be reported, along with adjusted r^2 figures and significance levels. In the case of the univariate regression, only unstandardized betas are reported, along with the adjusted r^2 and significance levels. For each of the regression analyses, I have chosen to accept a .05 level of significance. Finally, will also test both Model 2 and 3 for Multi-Collinearity using the VIF statistic.

Regarding the nature of the relationships between the independent and dependent variables: I expect to find a statistically significant relationship in Model 1: the relationship between System Type and Electoral Blocs. Simply put, I believe that MMM electoral systems will display greater levels of Electoral Bloc activity than MMP electoral systems. I base this belief on my confidence in the unique mechanical and psychological effects that each sub-type has on the institution of political parties.

In the multivariate analyses of the effects of the various independent variables on Models 2 and 3, or N_v and N_s respectively, I expect to find a statistically significant relationship between System Type and both N_v and N_s . I believe that this relationship will be more pronounced in the N_v model, due to the lack of mechanical restrictions such as thresholds on the overall results. I also expect to find a moderate relationship between Thresholds (T) and N_v and N_s . I expect to find that the mechanical effect will be more obvious in the N_s testing phase of Model 3.

Additionally, I expect to find no relationship between Effective District Magnitude (Natural Log) and N_v or N_s . Despite scholarly suggestions to the contrary, my initial review of the data itself suggests that there is no relationship between the number of

political parties and the size of the districts in a nation-state. Finally, I expect to find a moderate relationship between Issue Dimensions (I) and both N_v and N_s . A substantial caveat must be mentioned regarding this relationship: since I is a score that is built upon a qualitative foundation and cannot be empirically determined, I am skeptical of the practical applications of any result garnered from this test. However, as a prominently mentioned theory regarding N_v and N_s , I would suggest that it deserves to be tested in this thesis.

In summary, the Data and Methods section of my thesis has reviewed the criteria by which all of the data for this thesis was measured, the methods by which it was collected, and the sources of the data. I have discussed the equations used to operationalized each variable, and have reviewed the average, median, and modes for each data set, as well as provided a discussion regarding the range and outliers for each. Additionally, I have provided frequency data and tables for all the dependent and independent variables to be tested. Furthermore, I have reviewed the statistical tests that were applied to these data sets, and discussed the levels of significance that I will find acceptable, along with the statistics to be reported. In the next section, Results, I will review the results of these statistical tests and their relationship to each of my hypotheses.

Results

The complete results of the regression analyses of Models 1, 2, and 3 are reported in Table 17. Unstandardized betas are reported, with standardized betas in parentheses for Models 2 and 3. Additionally, the significance level achieved by each independent variable is listed at the bottom of Models 2 and 3. Model 1 examines the relationship between System Type and Electoral Blocs. The results of the regression analysis of Model 1 reported in Table 17 are clear: MMM electoral systems are more likely than MMP electoral systems to present higher percentages of Electoral Blocs. This model meets the .05 significance threshold that is the benchmark of acceptance of the hypothesis, and the adjusted r^2 , although somewhat low at .116, indicates that a substantial amount of the variance is due to System Type. While the relationship cannot be described as robust, it is fair to say that System Type appears to have at least a partial influence on the formation of Electoral Blocs within Mixed Systems.

Model 2 presents a more complex analysis of the relationship between the independent variables and N_v , or Effective Electoral Parties. The independent variables that were analyzed were System Type, Threshold Percentage, the Natural Log of Effective District Magnitude, and Issue Dimensions. Model 2 presents a strong r^2 score of .283 and is statistically significant with a robust score of .003. The VIF tests consistently show scores lower than four, reducing the probability of Multi-Collinearity. The standardized betas reveal an interesting pattern: Issue Dimensions is the strongest score with a .560 standardized beta, followed by a score of .441 for the Threshold variable, System Type at .342, and Natural Log of Meff (which is not statistically significant) at -.003.

Model 3 is an analysis of the effect of the set of independent variables on Effective Assembly Parties (N_s). Model 3 displays an even better overall result than Model 2, as evidenced by the p score of .001. The adjusted r^2 score of .330 is stronger than Model 2. This score would seem to indicate that Model 3 is an effective tool in “drilling down” into the electoral process at its most fundamental level. Again, the VIF statistic indicates that Multi-Collinearity is not a significant issue. Regarding the variables themselves, Issue Dimensions is once again the strongest causal factor with a standardized beta of .650, followed by Threshold Percentage at .510 and System Type at .397. Once again, Natural Log of Effective District Magnitude is not statistically significant, with a score of -.188. These results would seem to confirm the relationships established by Model 2.

As mentioned in the Case Selection section of this thesis, several nation-states were eliminated from the analysis due to their low levels of political and civil liberties as measured by the Freedom House indexes. Additionally, it should be noted that the Russian Federation has displayed consistently falling democracy scores over the time spans studied by Freedom House. Furthermore, Ukraine, despite a recent recommitment to democratic principles during the Orange Revolution, remains on shaky ground insofar as its government’s ongoing commitment to civil and political liberties. Despite these issues, scholarly interest in the two nation-states electoral processes is quite high. Additionally, an analysis including these two nation-states electoral data is useful in what it can tell us about the original analysis: if results including cases from these nation-states were identical, or dramatically different from the original analysis, this could indicate that the original case selection methodology was at fault. Therefore, I present an analysis in

Table 18 that includes these nation-states in the overall analysis of the three previously mentioned models.

Table 17
Results of the Regression Analyses of the Models

Model 1: Dependent Variable: Electoral Blocs

System Type .171
Adjusted r² .116
p .016

**unstandardized betas reported*

Model 2: Dependent Variable: Effective Electoral Parties (N_v)

			<u>VIF</u>
System Type	1.063	(.342) ^{***}	1.762
Threshold %	40.668	(.441) ^{**}	1.901
Natural Log of Meff	-.007	(-.003)	2.147
Issue Dimensions	.129	(.560) ^{**}	2.170
Adjusted r ²	.283		
p	.003		

Unstandardized betas reported (standardized betas in parentheses)

***Significant at less than or equal to the .05 level*

****Significant at less than or equal to the .10 level*

Model 3: Dependent Variable: Effective Assembly Parties (N_s)

			<u>VIF</u>
System Type	1.176	(.397) ^{**}	1.651
Threshold %	42.831	(.510) ^{**}	1.610
Natural Log of Meff	-.361	(-.188)	1.758
Issue Dimensions	1.110	(.650) [*]	1.697
Adjusted r ²	.330		
p	.001		

**unstandardized betas reported (standardized betas in parentheses)*

**Significant at less than or equal to the .005 level*

***Significant at less than or equal to the .05 level*

Table 18
Results of the Regression Analysis of the Models, including Special Cases
(The Russian Federation and Ukraine)

Model 1: Electoral Blocs

System Type .166
Adjusted r² .110
p .012

Unstandardized beta reported

Model 2: Dependent Variable: Effective Electoral Parties (N_v)

			<u>VIF</u>
System Type	.847	(.246) ^{***}	1.319
Threshold	31.947	(.319) ^{**}	1.261
Natural Log Meff	.217	(.095)	1.406
Issue Dimensions	.764	(.433) [*]	1.365
Adjusted r ²	.296		
p	.001		

Unstandardized betas reported (standardized betas in parentheses)

**Significant at less than or equal to the .005 level*

***Significant at less than or equal to the .05 level*

****Significant at less than or equal to the .10 level*

Model 3: Dependent Variable: Effective Assembly Parties (N_s)

			<u>VIF</u>
System Type	1.142	(.322) ^{**}	1.313
Threshold	39.137	(.396) ^{**}	1.251
Natural Log Meff	-.052	(-.022)	1.334
Issue Dimensions	.712	(.400) ^{**}	1.291
Adjusted r ²	.274		
p	.001		

Unstandardized betas reported (standardized betas in parentheses)

***Significant at less than or equal to the .05 level*

In the special cases analysis outlined by Table 18, Model 1 remains statistically significant with a p score of .012, and presents a slightly lower adjusted r² score of .110.

Model 2 displays some variance from the standard analysis, but the standardized beta scores retain the same general pattern of causal inference. Notably, Model 2 displays an adjusted r^2 score of .296, slightly higher than the score for the standard analysis. The interpretation of Model 3 remains much as before, with a significantly less robust adjusted r^2 score of .274. Both Models 2 and 3 are statistically significant at the .001 level, and both models retain a consistent VIF statistic.

In summary, the statistical results of both the standard analysis including democratically consistent nation-states, and a second analysis that includes the special cases of the Russian Federation and Ukraine have been reported. Significance levels, appropriate betas, adjusted r^2 scores, and VIF statistics have been reported. In the next section, the implications of these findings will be examined further.

Conclusions and Implications

The purpose of this paper is to examine the institutional effects of the two primary types of Mixed Electoral System, Mixed Member Majoritarian, or MMM, and Mixed Member Proportional, or MMP, on political parties. Specifically, I have sought to determine if statistically significant variance exists in two statistical measures of political parties, Effective Electoral Parties (N_v) and Effective Assembly Parties (N_s). These variables were operationalized by using commonly held assumptions about Mixed Systems that had not been empirically tested or subjected to scholarly research. Additionally, I sought to examine the effect of System Type on the formation of Electoral Blocs, or blocs of parties that group together to enhance their ability to gain representation in the assembly. All data were assembled and double checked using a variety of governmental, scholarly, and non-governmental sources, and were tested using regression analysis techniques, the products of which were reviewed in the Results section of this thesis.

The reader may recall that my first hypothesis dealt with the question of whether or not MMM and MMP systems would display unique effects on the formation of Electoral Blocs. The results, bolstered by a significance score at the .05 level and a mildly indicative adjusted r^2 score, indicate that this is the case, with MMM nation-states presenting a greater propensity towards the formation of Electoral Blocs than MMP nation-states. This conclusion is an interesting one given that the added proportional weight of the MMP system would seem to encourage small parties to believe that representation could be won without banding together to form larger blocs, and that the Majoritarian influence of the MMM system would restrict the ability of parties to gain

representation, both psychologically and mechanically. I would speculate that this effect is indicative of latter of these effects: political parties in MMM systems are somehow mechanically constrained in their ability to gain representation, but not by a factor that I have uncovered. I reach this conclusion by coupling the observations regarding electoral bloc formation with the insight that thresholds appear to have less influence in this matter than one might initially believe. MMP nation-states have on average higher thresholds than the MMM electoral systems, and, as one would expect, the MMM electoral systems in this thesis tended to present somewhat higher numbers of Electoral and Assembly parties. However, these same MMM based parties, while apparently not psychologically constrained from participating in the polity, are led to join Electoral Blocs, seemingly presenting evidence of some sort of constraint on at least the perception of the ease of attaining representation. I am left with the conclusion that some unrevealed aspect of the Majoritarian influence of the plural tier must be influencing this matter. These two insights could be interpreted by some as a tentative rejection of Duvergerian principles. In the terms of my hypothesis, I would consider that this hypothesis confirmed, but I would qualify that answer by stating that the adjusted r^2 and significance levels for this hypothesis were the lowest of all of the hypotheses tested. There are other factors at work here than simply System Type.

The remaining hypotheses were tested using Models 2 and 3. These sought to determine the stratification of influence for a variety of factors, including System Type, Threshold Percentage, Effective District Magnitude, and Issue Dimensions, on Effective Electoral and Effective Assembly parties within mixed systems. The statistical results confirm that both models are statistically robust with significance levels of .003 and .001

respectively, and that each of the variables tested met a respectable level of significance as well, with the exception of Natural Log of Effective District Magnitude. VIF scores also preclude the likelihood of Multi-Collinearity, and the adjusted r^2 scores are also relatively strong. Of the independent variables tested, the most notable results involved Effective District Magnitude. Both models revealed that Natural Log of M^{eff} is not a statistically significant factor influencing N_v or N_s . This result is a striking repudiation of commonly held assumptions about the importance of District Magnitude. While these assumptions are generally stated in regard to electoral systems in general and not specifically focused on mixed electoral systems, which is, of course, the focus of this thesis, this unusual result remains striking. I would speculate that since Natural Log of M^{eff} appears to have a powerful effect upon other types of electoral systems, and yet seems to have so little influence over either type of Mixed System, this must be a unique characteristic of the tiered system itself. The cases I selected display variance within the specific architecture and rules of the mixed systems themselves, and even wider variance in the number of seats assigned to each tiers. This suggests that some characteristic of mixed systems that doesn't vary must be at work. Therefore, I must tentatively suggest that the marked lack of effect presented by Natural Log of M^{eff} upon Mixed Systems must be related to the simple presence of both plural and proportional tiers. Certainly, this matter bears more detailed investigation.

A result that I did not expect was the over-riding importance of Issue Dimensions upon the differences in Mixed Systems. The results presented yielded the highest standardized Beta scores for both models. I would again caution that since this variable was necessarily operationalized from subjective judgments, this result is a tentative one. I

would suggest that while such a result seems to be one that common sense would confirm, that a polity fractured by powerful issues would produce more political parties in a mixed system than a stable political environment, I would still prefer a more empirical method of analyzing this variable.

As I suspected, both Threshold and System Type were both clearly influential on the institution of both N_v and N_s within Mixed Systems. What surprised me was that System Type was the least influential factor, only registering the .1 level of significance when testing N_v . However, the relatively strong scores presented by these variables in Model 3 would suggest that these factors do have a substantial influence upon the hypotheses upon political parties within mixed systems, especially upon Effective Electoral Parties.

A note about the special case analyses including the Russian Federation and Ukraine: while the various factors present a rank ordering in the same presentation as the standard versions of Model 1, 2, and 3, it is evident that there are some differences. In general, the inclusion of these cases has a degenerative effect upon the explanatory power of both the models and the factors within them. The reader will notice that the adjusted r^2 for Model 2 (N_v) remains substantially unchanged, while for Model 3 (N_s) it declines. This effect, I believe, is suggestive of the hazardous nature of the data itself. In many of the electoral records from both the Russian Federation and Ukraine, vote tallies do not add up; some districts have remarkably uniform voting characteristics, and other unusual factors such as massive percentages of “independents” are unique within this particular study. I would suggest that bureaucratic incompetence, corruption, and vote rigging within these nation states at least partially invalidates the data, thus reducing the effectiveness of the model when they are included within it. That being said, one interesting observation in the

Special Cases series revealed that both Threshold and System Type gained significant ground on Issue Dimensions on their overall effect on both N_v and N_s . This was particularly striking in Table 18, Model 3, or the test of the factors on N_s . While this result did not present what I would consider a significant divergence from the results of the standard models, it was somewhat unexpected and merits further investigation.

Regarding my overall contention that MMM and MMP systems display unique institutional effects on political parties; I would suggest that my research has presented some interesting evidence of these effects, but presents somewhat of a mixed conclusion. For instance, the reader may recall from the Results section that while the number of electoral and assembly parties are greater within MMM systems than within MMP systems, this effect is relatively slight. While the overall contention of unique institutional effects was confirmed by the analysis, I would report that the variance was not as striking as I would have thought, and the rank ordering of the effect of the causal factors was surprising. It is clear that other factors, independent of system type, may have a marked effect on the number of electoral and assembly parties in mixed electoral systems. For instance, the influence of executive type and power may have a strong influence on the outcomes presented. I would suspect that this would certainly be the case in the special cases of Russian and Ukraine. Other factors such as economic development levels may also play a role. However, I am confident in stating that the methods and evidence presented concerning the study itself is valid and robust.

While my statements in support of the efficacy of this research are in large measure substantiated by these findings, I would be remiss if I did not report on the challenges and potential pit falls of some aspects of this analysis. As indicated previously in the Case

Selection section of this thesis, many countries were eliminated from consideration due to their lack of high Freedom House democracy scores. The cut-off points for consideration were necessarily created from my own judgments; the inclusion of the special cases results were an attempt to gain some understanding of what including the excluded cases might have done to the overall result. I would also report that the use of the cut-off criteria limited the amount of data that could be obtained to forty-two cases in the standard model.

Regarding my choices of independent variables, I must again point out that the subjective nature of Issue Dimensions and its associated scoring is problematic for me. Since there is no way to empirically determine the score, it could easily be a weaker or even stronger factor than my results suggest. Another point of contention for some could be the utilization of new methods for determining N_s and N_v . It is possible that the use of the standard scholarly methods for examining these statistics might have yielded a different result. However, I would suggest that the use of conventional methods could lead to the under-representation of independents in both measures, leading to inaccuracies which could affect the overall results. Finally, I would suggest that the adjusted r^2 scores in all three models, though relatively robust, reveal that significant additional causal factors are at work upon Electoral Bloc formation, N_v , and N_s , in MMM and MMP systems. The determination of what these factors might be should be an important consideration for future research concerning Mixed Electoral Systems. For instance, the relative strength of the executive, or the influence of the judiciary on legislative activities might be institutional factors that could, or should have been examined as independent variables in the overall schemata of this research.

As for the scholarly implications of this research design, I would suggest that one important facet of this thesis is the cataloging of electoral results and electoral system details in one place. Approximately three months of research were spent on assembling and double checking the raw data used in this analysis. I present this raw material for others without hesitation and with some pride. Regarding the results of the analyses themselves, I would suggest that perhaps the most important result could be the results concerning Effective District Magnitude. The lack of a statistically significant finding within the differentiated types of Mixed Systems suggests that assumptions regarding the effect of this factor on other political systems may be in order. I also found the results of the analysis of Electoral Bloc formation within Mixed Systems to be intriguing, and feel that this research into this subject could lead to further insights regarding Mixed Systems.

When considering the importance of these results to both reformers and to constitutional engineers, I would suggest that this research provides solid insight into the institutional effects of both MMM and MMP systems on political parties. One sees frequent references to the problems caused by proliferating numbers of political parties and coalitions in reports on Israel and in Italy, and the reportedly negative effect this has on the ability of assemblies to effectively discuss and pass legislation. My research reveals that thresholds and MMP systems tend to restrict this tendency, and that this type of Mixed System also tends to avoid excessive Electoral Bloc formation. I would suggest that a moderate threshold of three to four percent combined with an MMP system could restrict the possibility of a burgeoning number of parties, while still preserving the ability of small parties to gain visibility and representation in a polity. Another recommendation based on my findings could be of interest to nation-states facing a political situation with

many fractious issues. Since I scores seem to feature so prominently in their influence upon Nv and Ns, and MMM systems tend to present somewhat larger numbers of political parties, these nations might consider implementing an MMM system with a reasonable threshold that could allow somewhat larger numbers of parties or politicized groups to gain representation in an assembly, and, given the adherence to a relatively standard of democracy, could convert possibly violent factions into peaceful political entities with a stake in the system.

In summation, while I am confident that this work adds to the body of scholarly thought and could provide valuable insights for constitutional reformers and engineers, I feel strongly that continued research that frames of the knowledge concerning this still emerging system type is vital. For instance, other variables involving executives and judiciary influences with Mixed Systems could be operationalized and tested. The mechanics of Electoral Bloc formation with MMM systems is another interesting subject that, I believe, merits further investigation. Detailed studies of thresholds and their effects within multi-tiered electoral systems could also prove to be interesting and may yield important findings. Finally, the lack of effect of Effective District Magnitude within Mixed Systems is a very intriguing topic that should require further investigation. I am certain that the results of thesis will be produce other questions that I have not even considered .As this thesis draws to close, it is evident that many more questions remain to be investigated within the world of mixed electoral systems.

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