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Democratic electoral systems around the world, 1946–2000[☆]

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Abstract

This article describes a new data set that covers the electoral institutions used in all of the democratic legislative and presidential elections in 199 countries between 1946 (or independence) and 2000. A clear and consistent classification of the electoral institutions used in these elections is followed by a concise geographical and temporal analysis. The worldwide focus of the data set reveals several striking patterns. For example, there have been almost as many elections under dictatorship as there have been under democracy. Other patterns include the fact that presidential regimes nearly always employ proportional electoral formulas, absolute majority rule has become the worldwide norm for electing presidents, and non-majoritarian systems have become more complex due to the increasing use of multiple tiers and mixed electoral formulas.

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Keywords: Electoral system; Electoral formula; Electoral tiers

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1. Introduction

Electoral institutions are considered an important explanatory variable for a wide range of political phenomena. Typically, they have been used to explain things such as the number of parties in a given country (Duverger, 1963), party system extremism (Cox, 1990), or the degree of electoral disproportionality (Lijphart, 1994). However, they have also been employed to explicate things ranging from coalition formation (Golder, 2003) and government instability (Mainwaring, 1993) to macroeconomic outcomes (Lizzeri and Persico, 2000) and the congruence between voter preferences and policy outcomes (Powell, 2000). Scholars have also treated electoral institutions as endogenous variables (Boix, 1999). Electoral institutions are clearly of great importance in many areas of political science.

However, problems with data availability for electoral institutions have often artificially constrained much of this empirical research to particular geographical regions such as Western Europe or OECD countries. Although there have been several recent attempts to remedy this situation to some extent (Jones, 1995; Shvetsova, 1999; Rose, 2000; Nohlen, 1993, 1999; Caramani, 2000; Nohlen et al., 2001a,b; Hicken and Kasuya, 2003), there is still no single database addressing electoral institutions across the world in an entirely consistent and comparative manner.¹ This paper seeks to build on this recent work by providing a single database that describes some of the more important electoral institutions used in all legislative and presidential elections during democratic periods in 199 countries between 1946 (or independence) and 2000. I provide detailed information covering a total of 867 legislative elections to national lower houses and 294 presidential elections.²

A regime is classified as a dictatorship if either: (i) the chief executive is not elected; (ii) the legislature is not elected; (iii) there is no more than one party; or (iv) there has been no alternation in power. In other words, a regime is democratic if those who govern are selected through contested elections. Countries are coded based on the regime that existed at the end of the given year. The specific classification of regime types is based on an updated and revised version of the data found in Przeworski et al. (2000). While the dataset includes all legislative and presidential elections that occurred in democratic periods, it does not include elections to constituent assemblies such as those that occurred in Italy (1946), France (1946), Pakistan (1955), Sudan (1965, 1968) or Nicaragua (1984). Nor does it include partial legislative elections such as those in Laos (1958), Costa Rica (1946), Luxembourg (1948, 1951), Somalia (1960) or Poland (1989).

¹ While great strides have been made in applying a common metric for describing electoral systems, some validity unfortunately remains to Lijphart's (1994, p. 2) criticism that "electoral engineers and students of electoral systems have used confused terminologies – with the same term sometimes being used for different practices and the same practice referred to by different terms".

² The dataset covers a wide range of institutional features including regime type, electoral formula, average and median district magnitude, the number of constituencies and upper tier seats, assembly size, etc. It also includes information on the effective number of electoral and legislative parties.

The next section begins with an overview of elections and democratic electoral systems worldwide. In sections three and four, I classify and describe the electoral institutions employed in legislative and presidential elections. I also provide a brief temporal and geographical overview of these institutions. Before concluding, I examine the patterns of electoral system choice under presidentialism and parliamentarism.

2. An overview of elections and democratic electoral systems

The number of independent countries in the world has grown from 67 in 1946 to 190 in 2000. This is illustrated in Fig. 1 along with how the number of dictatorships and democracies has changed worldwide since 1946. Only since 1992 has the number of democracies in the world actually been greater than the number of dictatorships. Virtually every independent country has held elections at one time or another. In fact, only eight countries (Bhutan, Brunei, China, Eritrea, Qatar, Saudi Arabia, Somaliland, United Arab Emirates) had failed to hold legislative or presidential elections under either democratic or authoritarian rule by 2000. Arguably, there has been considerable experience with, or interest in, electoral politics even among these eight countries. For example, Bhutan regularly experiences something akin to legislative elections when village heads and family representatives gather to nominate members of the Tshogdu in village level meetings. In April 2003, Somaliland actually held its first presidential elections and Qataris voted overwhelmingly in favor of a referendum on a new constitution that would allow them to vote for an elected legislature. Legislative elections have been planned several times in Eritrea since its independence in 1993; however, they have always been postponed due to conflict with Ethiopia. Although elections do not occur at regional, provincial or national levels in China, Chinese voters do have the opportunity to cast their ballots in township and county elections. In October 2003, even Saudi Arabia expressed its desire to introduce electoral politics,

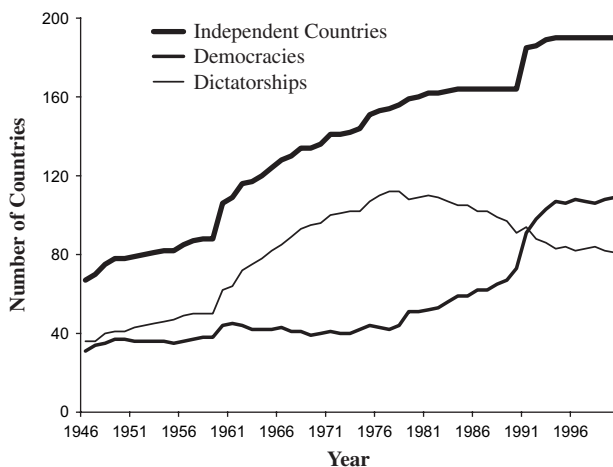


Fig. 1. Number of independent countries in the world: democracies and dictatorships.

starting with municipal elections in 2004. Only in Brunei and the United Arab Emirates has electoral politics failed to put down any meaningful roots at all.

Although this article focuses primarily on democratic elections, it is worth noting that about half of the world's elections between 1946 and 2000 were authoritarian in nature. During this period there have been 867 legislative and 294 presidential elections under democracy compared to 737 legislative and 300 presidential elections under authoritarian rule. Given that there have been almost 1400 extra years of dictatorship compared to democracy during this period, legislative elections have occurred on average every 3.5 years in democracies and only every 6 years in dictatorships. Despite their frequency, we have accumulated little systematic knowledge concerning the role that elections play under dictatorship. However, some evidence exists to suggest that these elections are a means of recruiting the political elite or ceremonial performances that help enforce citizen obedience, induce complicity, and socialize the electorate. As Milton Obote (a former Ugandan president) stated, elections were a way of controlling the people rather than being a means through which they could control him (Cohen, 1983). While these claims about the role of electoral institutions under dictatorship are often case-specific and anecdotal, they do generate the testable hypothesis that dictatorial survival should be positively related to the presence of elections. Using a duration model and data on 512 dictators between 1946 and 1996 in 138 countries worldwide, Gandhi (2003) finds support for this claim. Clearly, further systematic research is required before we can claim to fully understand the importance of elections under dictatorship.

One-hundred-twenty-five countries have actually experienced at least one democratic election. Table 1 illustrates that roughly one third of the democratic legislative and presidential elections that have taken place between 1946 and 2000 have occurred in the 1990s. The number of legislative and presidential elections remained fairly constant until the end of the 1980s. However, the collapse of the Soviet Union in 1990 and the return of multi-party elections in Africa led to a large increase in the number of democratic countries and democratic elections.

Table 2 illustrates the distribution of democratic elections across geographical regions. It is fairly easy to see that almost half of the world's democratic presidential elections between 1946 and 2000 have occurred in Latin America, while a third of the world's legislative elections have taken place in Western Europe.

Table 2 also provides information concerning electoral system change by indicating the average number of legislative elections that have occurred under each electoral

Table 1
Number of democratic elections by decade

Decade	Average number of democracies	Number of elections	
		Legislative	Presidential
1950s	36.5	111	33
1960s	42.3	121	37
1970s	42.7	127	35
1980s	58.6	162	48
1990s	100.7	281	114

Table 2
Democratic elections and electoral systems across geographical regions

Region	Number of countries	Legislative elections	Presidential elections	Electoral systems	Legislative elections per system
Sub-Saharan Africa	51	49	26	32	1.53
Eastern Europe	31	50	31	29	1.72
Middle East/North Africa	21	33	0	14	2.36
Latin America	19	164	133	65	2.52
Asia	23	86	18	27	3.19
Western Europe	25	285	60	61	4.67
Pacific Islands/Oceania	13	83	8	14	5.93
Caribbean/Non-Iberic America	16	117	18	19	6.16
Total	199	867	294	261	3.32

system by geographic region. An electoral system is defined as ‘a set of essentially unchanged election rules under which one or more successive elections are conducted in a particular democracy’ (Lijphart, 1994, p. 13). The features that characterize each electoral system in this analysis are assembly size, district magnitude, the electoral formula, presidential elections, and the number of electoral tiers. A 20% criterion for changes in district magnitude and assembly size is used to determine whether there has been a change in electoral system. The introduction of presidential elections or the introduction of presidential runoffs signify a change in electoral system. The same is true for the introduction or abolition of electoral tiers. A different electoral system emerges whenever there is a change in electoral formula or in how electoral tiers are connected. Alternation between presidential, parliamentary or mixed forms of government also indicates a change in electoral system. Finally, two electoral systems are classified as different if they are separated by a period of dictatorial rule, even if features of both systems are identical.

A few examples should clarify how electoral systems have been distinguished. The electoral systems in the Central African Republic (1993–1997, 1998–2000) are treated separately because the assembly size rose by more than 20%. Grenada is considered as having two electoral systems (1976–1978, 1984–2000) because the systems are separated by 15 years of dictatorial rule. The Ukrainian electoral system between 1998 and 2000 is distinguished from the system between 1994 and 1997 because of the introduction of a second electoral tier for the 1998 elections. The Albanian electoral systems (1992–1995, 1996–2000) are treated as separate because the two electoral tiers in Albania were connected for the 1992 election but not for the 1996 and 1997 elections.

Two-hundred-sixty-one different electoral systems can be distinguished using the criteria given above. Fifty-seven of the 125 countries that have held democratic elections have only ever experienced one democratic electoral system. In other words, all of the elections in these countries have been conducted within the same institutional framework. However, there is considerable variation in electoral system change. For example, Greece has experienced eleven electoral systems and Argentina twelve. There also appears to be considerable regional variation in electoral system change. Table 2 indicates that there have only been 1.53 and 1.72 legislative elections per electoral

system in Sub-Saharan Africa and Eastern Europe, respectively. The low score for Sub-Saharan Africa is largely explained by the fact that democratic periods have frequently been punctuated by periods of dictatorial rule. On the whole, African countries have retained the same electoral institutions since independence. In contrast, the low score for Eastern Europe seems to indicate a willingness to experiment with electoral institutions. This suggests that many East European countries have yet to reach an equilibrium in multi-party competition. Electoral systems appear to be most stable in the Pacific and Caribbean regions. However, it is arguable that the stability of electoral institutions is somewhat overstated in these regions due to the large number of elections that have occurred in the relatively stable systems of the United States, Canada, Australia and New Zealand. Once these elections are omitted, then the average number of elections per electoral system drops to 4.24 in the Caribbean region and 4.2 in the Pacific region. Thus far, variation in electoral system change across geographical regions has yet to be adequately explained.

Having briefly examined elections and electoral system change worldwide, I turn to classifying and describing the electoral institutions that have characterized the world's democratic legislative elections.

3. Legislative elections

Traditionally, legislative elections have been distinguished by whether they employ majoritarian or proportional formulas. The problematic nature of this simple dichotomy has become increasingly clear over time with the emergence of numerous countries using more complex electoral systems that employ multiple tiers and/or a combination of electoral formulas (Massicotte and Blais, 1999; Shugart and Wattenberg, 2001). I classify legislative electoral systems into four main types: majoritarian, proportional, multi-tier and mixed. Majoritarian and proportional systems employ a single electoral formula and a single electoral tier. A multi-tier system uses a single electoral formula in multiple electoral tiers, while a mixed system combines both a majoritarian and proportional formula. I summarize these electoral systems, describe their key characteristics and provide examples of countries that use them. I finish with a brief temporal and geographic overview of these legislative electoral systems worldwide.

3.1. Majoritarian and proportional systems

A total of 327 of the world's democratic legislative elections have employed majoritarian electoral systems. Seventy-one percent of these elections have been conducted using plurality rule. The vast majority of countries employing plurality electoral systems are former British colonies (Blais and Massicotte, 1997). The remaining majoritarian elections have either used absolute majority rule (Central African Republic, Mali), qualified majority requirements (Lebanon 1951, Mongolia 1996–2000), the limited vote (Argentina 1946–1950, 1958–1962), the alternative vote (Australia), the single non-transferable vote (Japan until 1996, Vanuatu), or a form of

modified Borda count (Nauru).³ Some scholars have classified the limited and the single non-transferable vote as semi-proportional systems (Lijphart, 1994). They point to the fact that the limited vote was often adopted in larger constituencies in order to secure the representation of minorities and that both formulas tend to produce electoral outcomes that are more proportional than those associated with plurality-rule systems. However, this line of reasoning confuses the outcome of an electoral formula with its mechanics. The key characteristic that defines a majoritarian system is that the electoral formula requires the winning candidate to obtain either a plurality or majority of the votes. Since the limited and single non-transferable vote both require the winning candidates to achieve a plurality, I classify them as majoritarian systems.

A total of 291 of the world's democratic legislative elections have employed proportional electoral systems. The only proportional system not to use party lists is the single transferable vote (Ireland, Malta).⁴ Those systems that employ party lists can be divided into two main types: quota systems (with allocation of remainders) and highest average systems. Quota systems include the Hare quota (Namibia, Colombia), Droop quota (Slovakia, Luxembourg), Imperiali quota and Reinforced Imperiali quota.⁵ Several methods are used to distribute any unallocated seats that remain. These include the largest remainder method (Benin 1991, Honduras), the highest average method (Benin 1995, 1999, Brazil 1998) and the modified highest average method (Luxembourg).⁶ The Hare

³ A candidate must win over 50% of the popular vote to win in an absolute majority system. If no candidate overcomes this threshold, then there is a runoff between the top two candidates from the first round. The qualified majority systems specify a particular percentage of the vote that a candidate must win in order to be elected in the first round. For example, candidates had to win 40% of the vote to be elected in the first round in Lebanon in 1951. In electoral systems that employ the limited vote, voters have fewer votes than there are seats to be filled. Candidates are ranked by the total number of votes received and the top candidates are then selected for election until the constituency seats are filled. Electoral systems that use the single non-transferable vote are similar except that each voter is only allowed to cast one vote in the multi-member districts. The candidates with the most votes are elected until the constituency seats are filled. Electoral systems that employ the alternative vote require voters to rank-order candidates. If a candidate obtains an absolute majority of first preferences, he/she is elected. If not, the candidate with the lowest number of first preferences is eliminated and his/her votes are redistributed among the remaining candidates. This procedure is repeated until one candidate reaches an absolute majority. The modified Borda count used in Nauru is very similar to the traditional alternative vote except that first preferences count as one vote, second preferences for a half vote, third preferences for one third of a vote, etc.

⁴ The single transferable vote requires voters to rank single candidates in order of the most to least preferred. Votes are transferred until candidates obtain the Droop quota (also known as the Hagenbach-Bischoff quota). The Droop quota is Valid Votes/Seats. Candidates that obtain this quota are elected.

⁵ The Hare quota is determined by Valid Votes/Seats + 1, the Imperiali quota is Valid Votes/Seats + 2, and the Reinforced Imperiali quota is Valid Votes/Seats + 3. Italy is the only country that has employed either the Imperiali or Reinforced Imperiali quotas for legislative elections 1946–2000. However, Italy is not classified as a proportional system since its remainder seats are allocated at the national level; instead, Italy is categorized as a multi-tier system.

⁶ The largest remainder method requires that unallocated seats are given to the parties with the largest remainders. The highest average method involves dividing the number of votes obtained by each party by the number of seats that party obtained in the initial allocation. This provides an average number of votes that was actually used to win a seat. Unallocated seats are then given to the parties with the highest average. The modified highest average method divides the number of votes obtained by each party by the number of already-allocated seats plus one.

quota with largest remainders is by far the most common quota-based proportional system and accounts for 27% of all proportional system elections. Highest average systems include the d'Hondt series (Finland, Suriname), the Sainte-Laguë series (Latvia, Bolivia 1993), and the Modified Sainte-Laguë series (Norway 1953–1988, Sweden 1952–1969).⁷ These systems do not produce any unallocated seats. The d'Hondt series is the most common highest average system and accounts for 52% of all proportional system elections.

3.2. *Multi-tier systems*

One-hundred-seventy-five of the world's democratic legislative elections have employed multi-tier electoral systems. Multi-tier systems are those in which a single electoral formula is used across multiple tiers.⁸ It is possible to distinguish between majoritarian and proportional multi-tier systems. However, the only countries to actually use majoritarian formulas in multiple tiers are Papua New Guinea and Mauritius. Eighty-nine legislative members in Papua New Guinea are elected from local constituencies using plurality rule and twenty are elected from provincial constituencies using plurality rule. It is arguable that there are actually three electoral tiers in Papua New Guinea since a further three members may be nominated to office with the support of two thirds of the parliament; however, no member has actually been elected in this manner. In Mauritius, the vast majority of legislative members are elected by plurality rule in multi-member districts. However, up to eight seats are allocated to 'best-loser' candidates. While the goal of these additional seats is to ensure proportionality, the formula for allocating them remains essentially majoritarian. As a result, Mauritius is classified as a majoritarian multi-tier system. All of the other countries that employ multi-tier systems use a proportional formula. With the exception of Malta and South Africa, which both employ the single-transferable vote in multiple tiers, these other countries all use party lists.

Multi-tier systems can be distinguished into those in which the electoral tiers are connected and those in which they are not. Linkage occurs whenever unused votes from one electoral tier are used at another level or if the allocation of seats in one tier is conditional on the seats received in another tier (Shvetsova, 1999).⁹ It is important to make this distinction since unconnected systems clearly provide different incentives for

⁷ In these systems, the votes that parties receive are divided by a series of numbers. Seats are allocated to the parties that have the highest average. The d'Hondt system uses the series 1, 2, 3, 4... as the divisor; the Sainte-Laguë system uses the series 1, 3, 5, 7...; the Modified Sainte-Laguë system uses the series 1.4, 3, 5, 7....

⁸ Electoral tiers are levels in which votes are translated into seats. The lower tier is the level of electoral constituencies. Higher tiers are constituted by grouping different lower tier constituencies together. Typically, these higher tiers represent geographical areas such as administrative regions or the nation as a whole (Caramani, 2000).

⁹ Multi-tier systems employing a single ballot are not necessarily connected systems (Shvetsova, 1999). A single ballot implies that the same vote tally is used in both tiers, but it does not signify whether the same votes are used in a connected or disconnected manner. Thus, it is possible for multi-tier systems with a single ballot to be classified as unconnected (Albania 1996, 1997). Likewise, separate ballots can be used in connected or disconnected ways.

politicians and parties than connected ones. The overwhelming majority of multi-tier electoral systems are connected. In fact, only 25 elections have been conducted in unconnected multi-tier systems such as Poland (1991–2000) and Guatemala (1990–2000). If increased proportionality or minority representation is the goal of higher tiers as most scholars claim, then it is little wonder that one observes few unconnected multi-tier systems.¹⁰ This is because higher tiers in unconnected multi-tier systems are constrained in their ability to increase proportionality since they do not take account of the unused votes or seats already allocated at the district level.

Many of the connected multi-tier systems are quota-based proportional systems in which remainder seats are allocated in a higher tier. For example, the remainder seats in Czechoslovakia and Estonia were distributed at the national level rather than in each constituency. The distribution of these remainder seats is often quite complex and idiosyncratic to a particular country. This is certainly the case in Greece. It is also possible for a quota-based system to be a connected multi-tier system even though it allocates its remainder seats at the district level. This is because it can also offer supplementary seats in a second tier where the eligibility for these seats depends on the votes and/or seats won at the district level. For example, a party in Iceland that wins at least one seat at the constituency level is eligible to compete for the 11 supplementary seats (13 since 1987) on offer at the national level. Other connected multi-tier systems are characterized by highest average proportional systems that offer compensatory seats in a higher tier. These compensatory seats are often used to increase minority representation and proportionality. For example, 40 seats (39 since 1974) are redistributed in a second tier among parties and cartels in Sweden whose share of the seats is less than their share of the votes. Likewise, parties in Venezuela that are under-represented in the allocation of district level seats relative to their national voteshare are eligible to receive a limited number of compensatory seats.

3.3. *Mixed systems*

Seventy-four of the world's democratic legislative elections have employed mixed electoral systems. Several different criteria exist in the literature for categorizing these systems (Reynolds and Reilly, 1997; Massicotte and Blais, 1999; Shugart and Wattenberg, 2001). I define those countries that employ a mixture of majoritarian and proportional electoral rules as mixed. It should be clear that a country can be classified as having a mixed system whether it uses one or more electoral tiers; in practice, most mixed systems have more than one tier.¹¹

¹⁰ The multi-tier system in Malta is somewhat anomalous. A 'potential' second tier has been in place since 1987 due to a constitutional provision stating that any party winning a majority of the votes but a minority of seats is to be given sufficient additional seats so as to obtain a legislative majority. Clearly, this higher tier is specifically designed to ensure a majority rather than increase proportionality.

¹¹ Shugart and Wattenberg (2001) offer a slightly different classification of mixed electoral systems. They argue that mixed systems are simply a special type of multi-tier system. As a result, they do not consider electoral systems that employ a combination of majoritarian and proportional formulas in a single tier as mixed. The problem with this is that it does not indicate how single tier systems that combine majoritarian and proportional formulas should be classified.

Table 3
Classification of mixed electoral systems

Type	Sub-type	Examples
Independent	Coexistence	Madagascar (1998) Iceland (1946–1959) Niger (1993, 1995)
	Superposition	Albania (1996) Kyrgyzstan (2000) Japan (1996, 2000) Russia (1993, 1995, 1999)
	Fusion	Turkey (1987, 1991) Sri Lanka (1989, 1994, 2000)
Dependent	Correction	Albania (1992) Mexico (2000) New Zealand (1996, 1999) Germany (1949–2000)
	Conditional	France (1951, 1965) Italy (1953)

Table 3 provides a classification of mixed electoral systems and gives examples of countries using such systems. Mixed systems can be divided into those in which the two electoral formulas are dependent and those in which they are independent.¹² An independent mixed system is one in which the two electoral formulas are implemented independently of each other, while a dependent mixed system is one in which the application of one formula is dependent on the outcome produced by the other formula. For example, the Russian electoral system is independent because the application of proportional representation in the higher tier does not depend in any way on the distribution of votes and/or seats determined by plurality rule at the constituency level. On the other hand, the German electoral system is dependent because proportional representation is applied in the higher tier so as to correct the distortions in proportionality caused by the plurality formula at the district level.

As Massicotte and Blais (1999) note, these independent and dependent mixed systems can be separated into various subtypes. For example, independent mixed systems can be separated into coexistence, superposition and fusion types. A coexistence system is one in which some districts use a majoritarian formula, while others employ a proportional formula. The electoral system in Madagascar between 1998 and 2000 is

¹² Massicotte and Blais (1999) recognize that countries such as Switzerland and Finland allocate the vast majority of their seats by proportional representation, but that a few seats are distributed through a majoritarian system. Given the clear predominance of one formula, they are reluctant to classify these countries as mixed. Instead, they propose a threshold by which a system is classified as mixed if more than 5% of the total legislature is elected by a different electoral formula to that used to elect the other deputies. With this threshold, neither Switzerland nor Finland qualify as using a mixed electoral system. While this threshold is somewhat arbitrary, its low level provides some reassurance that obvious classification errors are not being made. I use this threshold in my own classification.

a coexistence system because 82 members of the legislature are elected in single seat districts by plurality rule, while a further 78 members are elected in two-seat districts using the highest-average Hare formula. A superposition system is one in which two different formulas are applied nationwide. Japan represents an example of a superposition system since 300 representatives are elected by plurality rule in single-member electoral constituencies, while a further 190 are elected by proportional representation in eleven districts in a higher tier. A fusion system is one in which majoritarian and proportional formulas are used within a single district. The Turkish electoral system between 1987 and 1994 might usefully be considered a fusion system. During this period, Turkey employed a ‘contingency mandate’ in which the first seat in a constituency was allocated under plurality rule. The remaining seats were allocated using the d’Hondt system. A similar system has been employed in the Sri Lankan electoral system between 1989 and 2000. Again, the party that receives the highest number of votes in an electoral district receives a ‘bonus’ seat. The remaining constituency seats are then awarded according to proportional representation. Both systems clearly employ a combination of majoritarian and proportional formulas within a single district.

Dependent mixed systems can also be divided into subtypes: correction and conditional. A correction mixed system is one in which seats distributed by proportional representation in one set of districts are used to correct the distortions created by the majoritarian formula in another. The Albanian system between 1992 and 1995 is a good example of a correction system since the forty seats allocated in the higher tier were distributed by proportional representation based on unused votes from the single-member districts. A conditional mixed system is one in which the actual use or not of one electoral formula depends on the outcome produced by the other. The French system between 1951 and 1957 is a conditional mixed system since all districts other than the eight in Paris applied the following electoral rule: seats will be distributed by a winner-take-all approach if a party or cartel wins a majority of the vote, but by d’Hondt otherwise.

It is clear that a handful of mixed systems do not fit neatly into these five categories. For example, Hungary combines elements of a superposition and correction mixed system. A total of 176 representatives are elected by absolute majority rule in single member districts and a further 152 members are elected by d’Hondt in 20 regional districts. These sets of representatives are elected independently. However, there are 58 compensatory seats allocated at the national level depending on how parties have been rewarded in lower tiers. Another example is the Icelandic electoral system between 1946 and 1959, which might better be classified as coexistence-correction. Iceland appears to be a coexistence system during this period because 21 representatives were elected in single-member plurality districts, while a further twenty members were elected by d’Hondt in six two-seat districts and one eight-seat district. However, the eleven supplementary seats allocated at the national level provide it with the characteristics of a correction mixed system. The electoral systems used in the 1992 and 1995 elections in Croatia are also complicated to classify. I describe them as superposition systems because they allocate most seats by plurality rule and proportional representation in independent tiers. However, they also allocate seats by proportional representation in a separate district for the Croatian diaspora and several minority

seats in single member districts by plurality rule. [Massicotte and Blais \(1999\)](#) contend that these more complicated electoral systems might be better considered as supermixed systems.

Mixed systems are typically designed to increase the level of proportionality or minority representation. However, this is not always the case. For example, the mixed system used in the South Korean elections of 1988 and 1992 automatically entitled the party that won half of the directly-elected seats to two-thirds of the upper tier seats. Even if the largest party did not win half of the directly-elected seats, it was still awarded half of the upper tier seats. Only the remaining upper tier seats were distributed using proportional representation. This electoral system represents somewhat of an anomalous case; increased proportionality does seem to be the goal of most mixed systems.

The extent to which mixed systems produce proportional outcomes is likely to depend on the institutional features that characterize them. For instance, dependent mixed systems are likely to be more proportional than independent systems because the allocation of seats by proportional rule is designed specifically to counteract the distortions created by the majoritarian formula. It is perhaps interesting to note that the vast majority of the new democracies in Eastern Europe did not adopt the dependent mixed system of Germany as is often assumed, but actually chose a mixed system with independent tiers. Other institutional features, such as the percentage of seats distributed by the proportional formula, the size of the district magnitude used with the proportional formula, and the formula itself are also likely to affect the degree of proportionality in these systems. Thus far, there has been little empirical work actually examining whether these institutional features of mixed systems actually increase proportionality in practice.

3.4. *Temporal and geographical overview*

Having described the democratic electoral systems used for legislative elections in the world since 1946, it is worth taking a step back to examine any temporal and geographical patterns. [Table 4](#) provides details on the percentage of democratic legislative elections by electoral system type and decade. There is little support for the frequent assertion that proportional representation is becoming increasingly commonplace. The figures clearly illustrate that the percentage of legislative elections characterized as majoritarian in any given decade has not really changed since the

Table 4
Percentage of democratic legislative elections by electoral system type

Decade	Elections	Majoritarian	Proportional	Multi-Tier	Mixed
1950s	111	36.9	41.4	13.5	8.1
1960s	121	39.7	41.3	16.5	2.5
1970s	127	37.8	33.9	26.0	2.4
1980s	162	42.0	32.7	21.0	4.3
1990s	281	35.2	27.8	21.7	15.3

1950s. Roughly 37% of legislative elections in each decade use majoritarian formulas in a single tier. The percentage of elections using proportional representation in a single electoral tier has actually declined monotonically by approximately 33% since the 1950s. In contrast, the percentage of legislative elections comprised of more complicated systems using multiple tiers and a combination of electoral formulas has risen quite remarkably since 1946. This is particularly the case for mixed systems. It is important to remember that the vast majority of these more complicated systems are highly proportional in nature. Thus, the evidence presented here suggests that while the balance between the percentage of elections employing majoritarian and proportional formulas has not changed significantly since 1946, proportional representation elections have become more complex.

Table 5 provides information on the number and percentage of democratic legislative elections by electoral system type across various geographical regions. Percentages are given in parentheses. An obvious pattern emerges in which each geographical region is characterized by a dominant electoral formula. For example 94.87% of the elections in the Caribbean and non-Iberic America, 86.05% of the elections in Asia and 91.57% of the elections in the Pacific Islands and Oceania have used some form of majoritarian electoral formula. In contrast, 76.83% of the elections in Latin America have employed a proportional representation system in a single electoral tier. A total of 81.75% of elections in Western Europe have been conducted using proportional formulas in either single or multiple electoral tiers. Electoral systems in Eastern Europe have been characterized by their complexity, with 78% of elections using multiple tiers or a combination of electoral formulas. It is only in sub-Saharan Africa that one really observes a variety of electoral system types being

Table 5
Number and percentage of democratic legislative elections by geographical region and electoral system type

Region	Majoritarian	Proportional	Multi-tier	Mixed	Elections
Western Europe	25 (8.77)	115 (40.35)	118 (41.40)	27 (9.47)	285 (100)
Eastern Europe	3 (6)	8 (16)	19 (38)	20 (40)	50 (100)
Latin America	7 (4.27)	126 (76.83)	23 (14.02)	8 (4.88)	164 (100)
Asia	74 (86.05)	1 (1.16)	0 (0)	11 (12.79)	86 (100)
Caribbean/Non-Iberic America	111 (94.87)	5 (4.27)	0 (0)	1 (0.85)	117 (100)
Middle East/North Africa	8 (24.24)	22 (66.67)	1 (3.03)	2 (6.06)	33 (100)
Pacific Islands/Oceania	76 (91.57)	0 (0)	5 (6.02)	2 (2.41)	83 (100)
Sub-Saharan Africa	23 (46.94)	14 (28.57)	9 (18.37)	3 (6.12)	49 (100)
Total	327	291	175	74	867

Table 6
Percentage of democratic presidential elections by electoral formula

Decade	Number of elections	Plurality	Absolute majority	Qualified majority	Other
1950s	33	48.5	6.1	24.2	21.2
1960s	37	51.4	13.5	16.2	18.9
1970s	35	37.1	22.9	22.9	17.1
1980s	48	39.6	29.2	16.7	14.6
1990s	114	25.4	60.5	8.8	5.3

employed. While 46.94% of elections have used majoritarian formulas in this region, a significant number of elections have employed proportional (28.57%) and multi-tier (18.37%) electoral systems.

4. Presidential elections

Democratic presidents have been elected in one of five ways: plurality rule, absolute majority rule, qualified majority rule, single transferable vote, or electoral college. A candidate who wins a relative majority of the popular vote in a plurality-rule election becomes president. In an absolute majority system a candidate must win over 50% of the popular vote to become president. If no candidate overcomes this threshold in the first round, then there is a runoff between the top two candidates. Qualified majority systems are only slightly different. Each qualified majority system specifies a particular percentage of the vote that a candidate must win in order to be elected in the first round. This threshold ranges from a low of 33% in the Peruvian presidential elections of 1956 and 1963 to a high of 55% for the 1996 election in Sierra Leone. If two or more candidates overcome these thresholds, then the one with the highest number of votes wins.¹³ Qualified majority systems vary in terms of the electoral procedure that applies when these thresholds are not met. Some countries have employed a runoff between the top two candidates from the first round (Argentina, Costa Rica, Nicaragua, Sierra Leone, Finland). Other countries indirectly elect the president using either an electoral college, the parliament or joint sessions of the bicameral legislature (Bolivia, Chile, Guatemala, Peru, Finland).

Table 6 illustrates that the vast majority of presidential elections have used plurality (108) or absolute majority (108) rule. Absolute majority rule has replaced plurality rule as the predominant electoral system for presidential elections in the 1990s. A total of 60.5% of presidential elections in the 1990s used absolute majority systems compared to just 6.1% in the 1950s. The adoption of absolute majority rule by most new democracies in Eastern Europe helps to explain this dramatic change. Most countries in Africa have also adopted absolute majority rule following the

¹³ Some countries have made these thresholds more complicated. For example, a candidate could have been declared president in Argentina during the 1995 and 1999 elections if: (i) he/she won 45% of the valid votes; or (ii) if he/she won 40% of the valid votes and 10% more than the next best-placed candidate. Similar rules also exist in Nicaragua and Ecuador.

reemergence of multi-party elections in the 1990s (Golder and Wantchekon, 2004). Zambia is the only African country to have actually switched from using an absolute majority requirement (in 1991) to using plurality rule (in 1996). Many countries in Latin American have also recently switched to absolute or qualified majority systems. Argentina was the only Latin American country to employ absolute majority rule prior to 1979. By 2000, there were seven Latin American countries employing absolute majority rule and five using qualified majority rule. The desire to avoid electing presidents who lack a strong popular endorsement may explain the worldwide preference for majority requirements but does not help us understand why they suddenly became so popular in the 1990s. This remains a puzzle to be explored.

Only a handful of countries have failed to use plurality, absolute majority or qualified majority rule. Argentina, Finland and the United States are the only countries to have employed an electoral college; Ireland and Sri Lanka are the only countries to have used the single transferable vote.¹⁴

5. Elections under presidentialism and parliamentarism

One feature that distinguishes democratic electoral systems is whether the regime is presidential or parliamentary. Several different criteria have been proposed for classifying these regimes. I follow a fairly minimalist definition, where a presidential regime is one in which the government serves at the pleasure of the elected president. The president may be directly or indirectly elected; the important feature is that the president selects and determines the survival of the government. A parliamentary system is one in which the government serves so long as it maintains the confidence of the legislature. A system in which the government must respond both to the legislative assembly and to an elected president is classified as mixed. Typically, these mixed systems are characterized by a president who is elected for a fixed term with some executive powers and a government that serves at the discretion of the legislature. This classification of parliamentary, presidential and mixed regimes allows for the possibility of direct presidential elections in parliamentary systems and no direct presidential elections in presidential and mixed regimes. For example, Austria and Ireland both have direct presidential elections but are classified as parliamentary. On the other hand, Switzerland and South Africa do not have direct presidential elections and yet are still classified as presidential and mixed respectively. This classification scheme follows the recommendations of Przeworski et al. (2000).

Table 7 indicates the number of democratic country years that have occurred under parliamentary, presidential and mixed regimes across each geographical region. It is immediately obvious that one regime type dominates in nearly every geographical region. For example, over 72% of the country years in Western

¹⁴ It is worth noting that Bosnia and Herzegovina also employed the single transferable vote to elect its tri-partite presidency from 1996 to 2000. However, Bosnia and Herzegovina is not classified as an independent democratic country during this time period.

Table 7

Democratic country years under parliamentary, presidential and mixed regimes

Region	Parliamentarism	Presidentialism	Mixed	Total
Western Europe	742	105	178	1025
Eastern Europe	86	34	58	178
Latin America	0	565	2	567
Asia	214	50	32	296
Caribbean/Non-Iberic America	348	64	19	431
Middle East/North Africa	119	0	0	119
Pacific Islands/Oceania	245	17	0	262
Sub-Saharan Africa	68	61	65	194

Europe, Asia, the Pacific, the Caribbean, North Africa and the Middle East have occurred under parliamentary democracy. In stark contrast, there have only been two country years that have not occurred under presidentialism in Latin America (Brazil 1961 and 1962). It is only Eastern Europe and Sub-Saharan Africa that have experienced a significant percentage of democratic country years under presidential, parliamentary and mixed regimes. With the exception of Eastern Europe and Sub-Saharan Africa, this article provides strong evidence that geographical regions tend to share the same regime type and the same electoral formula. The causal process generating such a pattern has not been adequately analyzed to date.

Only nine countries have actually switched between presidential, parliamentary and mixed regimes in the post-war period. Nigeria, Sierra Leone, and South Korea have each experienced periods of parliamentary and presidential rule. Sri Lanka, Suriname, France and Pakistan have had both parliamentary and mixed regimes. Brazil experienced a brief period of mixed rule between 1961 and 1962 before returning to its traditional presidential system. Finally, Armenia changed from being a presidential to a mixed system in the mid 1990s. The limited nature of alternations suggests that these elements of a country's electoral system are perhaps the most immune to change. An implication of this is that changes in the proportion of the world's independent countries using parliamentary, presidential or mixed regimes is due to the emergence of new independent countries or the death of existing states rather than experimentation. Thus, the increase in the percentage of the world using mixed regimes in the 1990s is largely due to the arrival of the new East European states and the transitions to democracy in the former French colonies in Africa; it is not caused by a switch to a mixed system by pre-existing democratic countries.

Table 8 illustrates legislative electoral systems by regime type. It is quite striking that 57% of all legislative elections conducted under presidentialism have used proportional electoral systems. In fact, 76% of elections under presidentialism are characterized by proportional formulas if one also includes the multi-tier and mixed electoral systems. The same percentage of elections in mixed regimes also employ proportional formulas if these electoral systems are included. The choice of a proportional electoral system under presidentialism is somewhat surprising given the strong empirical evidence suggesting that presidentialism is particularly unstable when there are many parties (Mainwaring, 1993; Stepan and Skach, 1993). This

Table 8
Legislative electoral systems by regime type

Electoral system	Regime type		
	Parliamentary	Mixed	Presidential
Majoritarian	240	24	63
Proportional	106	35	150
Multi	123	22	30
Mixed	34	22	18
	503	103	261

raises the question as to why presidential incumbents might choose electoral institutions that seem to weaken their ability to stay in power? Presidential and mixed regimes stand in stark contrast to parliamentary regimes where roughly half of the legislative elections are conducted according to purely majoritarian formulas. This is an empirical pattern that has yet to be explained.

6. Conclusion

In this article, I have provided a consistent classification and systematic description of the world's democratic electoral systems and institutions since 1946. The typology that I have presented focuses primarily on the mechanics of an electoral system rather than the outcomes associated with it. This was an attempt to make the classification of electoral systems as simple and transparent as possible. I hope that this database adds to the recent data collection efforts in this area and ultimately goes some way to helping scholars test their hypotheses relating to electoral institutions without being as constrained by artificial geographical and temporal constraints as has been the case in the past.

The preliminary descriptive analysis conducted here suggests that there are some important empirical patterns relating to electoral system choice and electoral system change that need further exploration. For example, it is typically the case that one particular type of regime (parliamentary, presidential, mixed) and legislative electoral system (majoritarian, proportional, multi, mixed) is dominant within a given geographical region. While further historical research is required to fully understand how these patterns emerged, the evidence presented here supports the notion that the choice set available to political elites who wish to manipulate electoral rules to achieve their objectives may be constrained by the historical development of their geographical region. Other patterns that emerged in the analysis include the fact that: (i) presidential regimes nearly always employ proportional electoral formulas; (ii) absolute majority rule has become the worldwide norm for electing presidents; (iii) the frequency of electoral system change varies quite considerably across geographical regions; (iv) majoritarian electoral systems account for the same percentage of legislative elections as they did in the 1950s; and (v) non-majoritarian systems have become more complex due to the increasing use of multiple tiers and mixed electoral formulas.

Finally, the analysis indicates that almost half of the world's legislative and presidential elections since 1946 have occurred under dictatorship. This raises a serious puzzle as to why dictators hold elections, create legislatures and permit political parties given that 'parties do not compete, elections do not select, and legislatures do not decide' in these regimes (Gandhi, 2003). What role do elections and electoral institutions play in maintaining dictatorial rule? Systematic research in this area is relatively new; more detailed theoretical and empirical research is required before we have convincing answers to this type of question.

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