

Thou shalt not exclude negative cases: Towards an explanation of electoral system change*

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Existing accounts of electoral system change have predominantly focused on countries that have actually implemented such changes, thereby creating serious problems of selection bias. This paper argues that in order to explain instances of electoral change, it is insufficient to restrict analysis to cases in which change of electoral rules occurred. Rather, variance on the dependent variable is necessary for meaningful accounts of electoral system change. Against this methodological backdrop, this paper uses data on electoral rules to assess the systematic impact of political variables on the probability and direction of change. Using a Cox proportional hazard maximum likelihood and a Prais-Winsten-regression model, it is shown that the number of veto players in a system and the type of the old electoral system impact on both the probability and the direction of change.

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1 Introduction

After the January 2008 elections in the German state of Hesse, government formation has proved difficult. At the time of writing, a new Prime Minister is still awaiting approval by a majority of the legislature. One of the reason for these difficulties is the emergence of a fifth party in the German political arena. With the Party “Die Linke” gaining in electoral support and making it into 10 of the 16 German state parliaments, established coalitions are no longer feasible.

One of the most interesting reactions to this new situation has come from former German Federal President Roman Herzog. In an op-ed piece for the newspaper “Süddeutsche Zeitung”, Herzog argued in favor of changing electoral rules towards a system of majority voting. Because majority systems typically lead to fewer parties represented in parliament, this would facilitate the creation of stable majority governments.

Reactions were swift and predominantly negative. Representatives from large and small parties alike rejected Mr. Herzogs proposal. Wolfgang Bosbach, Vize-Chairman of the Christian Democratic Party (CDU) in the Bundestag, advised against “making such important constitutional questions depending on single election results”¹. It is probably a safe bet that for the time being electoral system change is off the political agenda in Germany.

Can we thus safely ignore this episode when dealing with electoral system change? More generally: What can we learn from descriptions of electoral system change that focus on cases in which such change has actually occurred? To date, research into electoral system change has predominantly considered instances of electoral system change that were defined as positive cases by their outcome. And while there is a lot to be said in favor of selecting cases on the dependent variable (see, for instance George and Bennett (2005) and Collier et al. (2004)), when it comes to actually testing causal theories, such approaches are insufficient. James D. Fearon summarizes this position in the following statement:

“Statistical principles do not simply cease to operate when the number of actual cases dips below twenty or fifteen or ten, creating room for alternative ways of testing causal hypotheses.” (Fearon 1991: 179)

Underlying this perspective is the belief that causation manifests itself to the observer as regularities of the operationalized and measured theoretical concepts. This holds true,

¹“Ich glaube nicht, dass man so wesentliche Verfassungsfragen vom Ausgang einzelner Wahlen abhängig machen sollte.” Quoted after <http://www.sueddeutsche.de/deutschland/artikel/585/162137/>; own translation.

as John Gerring claims, even for manifestations of causation in which there is no actual possibility to observe such regularities:

“All empirical evidence of causal relationships is covariational in nature. A purported cause and effect must be found to covary. They must appear and disappear, wax and wane, or perform some other transformation in tandem or at some regular, more or less predictable, intervals. Even where this covariation is imagined, as in a counterfactual thought experiment, the evidence we imagine is of a covariational sort.” (Gerring 2004: 342)

Yet, unlike with other research questions, we are not confined to conducting thought experiments and imagining covariation. Rather, as the example from the German state election above shows, there are not only cases in which electoral system change does not occur, but also cases in which they did not occur although they were on the political agenda.

This paper uses cross national time series data to assess the systematic impact of a number of political variables on the probability and the direction of change of electoral rules. Rather than distinguishing between positive and negative cases, all ‘relevant cases’ (Mahoney and Goertz 2004) are included in the statistical analysis. It is shown that political variables, namely the number of veto players and the type of voting system that was in place prior to the change has a significant impact on the probability of change. Furthermore, these variables also influence whether voting rules are changed towards more proportional provisions or rather in the opposite direction.

The remainder of this paper proceeds as follows: In the next section, I will briefly discuss the literature on electoral system change and point to some weaknesses in existing accounts. The third section presents results from statistical analysis of electoral rule changes. A final section concludes.

2 Electoral Systems as Dependent Variable

The overwhelming majority of research that concerns itself with electoral systems treats electoral institutions as an independent variable. This type of research dates back to the work of Maurice Duverger (1951) who made a connection between electoral rules and party system outcomes: According to “Duverger’s Laws”, a system based on simple majority voting in single member voting districts will likely lead to a two-party system while proportional representation favors the emergence of multi-party systems.

In Kenneth Benoit’s view, Duverger’s line of reasoning has led to the dominance of studies that investigate the consequences of electoral systems rather than their origins

(Benoit 2004: 364). Yet, research into electoral systems as dependent variable has recently been met with increased interest. For example, in an attempt to turn “Duverger’s Laws upside down”, Josep Colomer proposes and tests a theory according to which the number of parties that exist at the time an electoral system is decided upon shapes the choice of electoral systems (Colomer 2005).

Colomer’s work is in some sense a rare example because he performs the empirical tests of his propositions on an encompassing database that includes both instance of electoral system stability as well as electoral system change. In other words: Colomer considers *negative* cases together with cases in which the outcome of interest — electoral system change — could be observed.

Most other accounts of electoral system change choose a different research strategy. Research on electoral systems as dependent variables can be broadly grouped into three categories: Work that is concerned with a specific moment in history where far reaching and broad changes to electoral systems were effected; accounts of single cases of electoral system change; and descriptive analysis of multiple cases of electoral system change. I will briefly discuss each of these three approaches in turn.

Accounts of broad historical changes

Starting towards the end of the 19th century, almost all countries of Continental Western Europe changed their electoral systems from majority voting to some variant of proportional representation:

“PR was introduced in Belgium in 1899, Finland in 1906, and Sweden in 1907. [...] By 1919 all the small European states as well as Germany and Italy had embraced PR.” (Boix 1999: 615)

A first explanation for this seemingly general trend towards proportional representation (PR) was provided by Stein Rokkan who argued that introduction of PR can be explained by a logic of minimizing damage resulting from the expansion of suffrage to wide proportions of the populace: Because a majority of new voters held left leaning preferences, universal suffrage under a majority system would most likely have resulted in Socialist government. Therefore, the established parties opted for introducing PR, thus securing at least some share in power (Rokkan 1970).

There are at least two problems associated with this explanation. First, it cannot account for the fact that introduction of universal suffrage has in some cases *not* resulted in adoption of PR. Neither New Zealand, nor Great Britain, nor Australia — all of which experienced extension of political franchise at some point — introduced PR. Thus,

expanding suffrage cannot be regarded as a sufficient cause for electoral system change towards PR. Second, Rokkan's explanation does not capture electoral system changes that are *not* accompanied by changes to the franchise — most notably exemplified by the cases France and Greece who repeatedly switched back and forth between PR and a majority voting system. Therefore, Rokkan's account can neither be viewed as providing a necessary condition for electoral system change.

To remedy this unsatisfactory situation, Carles Boix (1999) proposes a variant of Rokkan's argument that not only considers changes to the "electoral market" (Boix 1999: 621), but also the relative strengths of the parties present in the old system and the party favored by expanding the franchise. If one of the established parties enjoys a dominant position in the party spectrum, the old voting system is maintained. Likewise, if the new party is weak, no changes to the majority system are effected.

Despite its enhanced explanatory power, Boix' model is ill suited to capture electoral system change in established democracies. None of the 13 democracies that have enacted changes to their electoral rules over the time span from 1977–2004 (see below) had experienced an expansion of their "electoral markets". Put differently, Boix' explanation is an improvement over Rokkans account because it can accommodate the observation that changes of the political franchise are not a sufficient condition for electoral system change. However, it does not capture the fact that electoral market changes are neither a necessary condition for electoral system change.

Single case studies of electoral system change

Electoral system change is likely to exhibit a high degree of contingency on country specific circumstances. Furthermore, far reaching changes of electoral rules are rare events; electoral systems tend to be stable (Nohlen 1984; Norris 1995). This has led some researchers to focus on single cases of electoral rule changes or their absence.

In her account of the changes that were introduced to the German voting system and became effective in the 1953 Federal elections, Kathleen Bawn (1993) argues that decisions over electoral rules can best be explained

“[...] as a social choice, affected by the interests of the participants and by the institutions that structure the choice” (Bawn 1993: 988).

From this perspective, political actors hold preferences over policies. They bargain with each other in order to change the electoral rules in a way that will maximize the probability of their preferred policies being adopted. Existing institutions shape both the incentives and the opportunities to actually effect such changes. Preferences

and institutions are thus analyzed as equilibrium configurations (Bawn 1993: 987). If institutions change, the system must have come off its equilibrium path.

This last point, however, is precisely the problem with Bawn's account. The explanation for the change of electoral rules is derived from the fact that they have changed indeed. Thus, the focus on a single positive case is not only dictated by aspects like data availability or the attempt to provide an in-depth story of the event in question, but also appears as the methodological consequence of a theoretical predisposition: The explanation offered by Bawn cannot account for cases in which both incentives and opportunities for change were present but change did not occur. To be sure, her assertion that "institutional choices are political choices" (Bawn 1993: 986) is immensely valuable because it sets the focus on actors' preferences and their actions derived thereof. But her approach creates too little leverage for a systematic explanation of electoral system change and electoral system stability.

It is the latter aspect of electoral system stability in which Patrick Dunleavy and Helen Margetts are interested in their study of the persistence of the British electoral system (Dunleavy and Margetts 1995). They argue that the persistence of electoral rules in Britain can be explained by the multi-dimensionality of the issue and the high transaction costs involved. Despite recurring discussions about the desirability of changing the system towards more proportionality, overlaps of actors' preference sets are "fragile and conjectural" (Dunleavy and Margetts 1995: 24). The emergence of a stable coalition in favor of electoral system change is thus not to be expected.

Studying a negative case is clearly the exception in accounts of electoral system change. Yet, Dunleavy and Margett's explanation for the observed outcome of non-change begs the question whether it can be fruitfully applied to positive cases as well. Ultimately, their theory must stand up to the test whether it can explain change and non-change. This would require a detailed analysis of preferences, positions, and transaction costs. This exercise is further complicated by the multi-dimensional nature of their argument. In order to consider all possible combinations of variables on all dimensions in a systematic way a large number of cases is needed. Unfortunately, such data are, as yet, unavailable.

Descriptive accounts of multiple cases

Dunleavy and Margetts have called 1993-94 an "*annus mirabilis* in which three established liberal democracies — Italy, Japan, and New Zealand — radically changed their voting systems" (1995: 11). This has led some researchers to descriptively compare these cases. Takayuki Sakamoto, for instance, accounts for the electoral system changes in the

three countries by pointing to problems with the old system (Sakamoto 1999). In all three cases, Sakamoto identifies “system failure” (1999: 419) as an important determinant for setting the process of change in motion. Yet, dissatisfaction with the functioning of the old system is not sufficient for electoral system change. Rather, Sakamoto points to country specific factors that were decisive for electoral reforms taking place. Among these factors, he identifies the old electoral system, constitutional provisions, and, more generally, “particular circumstances” (1999: 434).

Sakamoto is aware of the problems that are associated with selecting cases on the dependent variable (1999: 420). It comes, therefore, as a bit of a surprise that in his conclusion he points to the “limits of a general explanation for electoral reform and the need to look into country specific factors” (1999: 434). For in fact this is something that is impossible to know when only cases are selected in which electoral system change actually took place. In order to assess the explanatory power of country specific versus general explanations, an empirical model is needed that considers both negative and positive outcomes.

In the next section, I attempt to take a step towards such a model. I will empirically test a few simple propositions about the determinants of electoral system change and compare their explanatory power to that of country specific factors.

3 An empirical assessment of electoral system change

As the discussion of the literature has shown, large- N accounts of changes of electoral rules do not exist (with the possible exception of Colomer (2005)). This is not surprising, given the limits to data availability and the methodological problems that arise because of the rare-event characteristic of electoral system change. Figure 1 shows instances of electoral system change for the period from 1976 to 2006. The measure of electoral system change is based on data taken from the “Database of Political Institutions” (DPI) (Beck et al. 2001). This database captures institutional features for approximately 180 countries for the years 1970–2006. Included are two dummy variables that measure whether a country uses proportional representation (‘PR’), a majority system (‘PLURALITY’), or both (in the latter cases, both variables take on the value 1).

I have used this information to identify instances of change made to electoral systems.

In this first step, I do not distinguish between democratic and non-democratic countries.² Likewise, the degree to which a democracy is ‘established’ played no role in case selection.

Altogether, 15 instances of electoral system change could be identified. Given that the database contains information on electoral systems in 3268 country-years, this amounts to 0.46 percent of cases in which electoral system change occurred. Put differently: More than 99.5 percent of all observation in the complete sample are negative cases.

Yet, even from this limited number of positive observations, some tentative remarks are in order: There seems to exist a clear pattern towards more proportional systems. Only four countries have moved in the direction of less proportionality: Kyrgyzstan, Papua New Guinea, Italy, and Mexico. The remaining 11 countries enacted changes to their electoral system that made them more proportional. What is maybe most striking about figure 1 is the clustering of changes that resulted in ‘mixed’ systems, that is, systems that combine features of majority voting and proportional representation. This trend towards mixed systems has previously been noted in the literature (e.g. Dunleavy and Margetts (1995)); it is confirmed by the analysis presented here.

As argued above, however, analysis of positive cases of electoral system change does not suffice to discern causal influences. To assess the systematics of electoral system change, negative cases have to be included as well. In an attempt to more fully grasp these systematics, a survival analysis of electoral rules is conducted. Survival analysis techniques were developed in medicine and engineering in order to assess the influence of independent variables on the survival time of patients or technical components. Increasingly, these techniques have made their way into the social sciences (Box-Steffensmeier and Jones 2004). They can be fruitfully applied to research questions that ask about the determinants of the time it takes until an event occurs.

In the context presented here, the event I am interested in is the change of electoral rules. To identify such events, I again turn to the DPI data which contain a variable that captures mean district magnitudes for parliamentary elections. Mean district magnitude is used as a proxy for the degree to which the electoral system is proportional. Higher values on this variable can be interpreted as indicating more proportional systems. This variable is, therefore, a more precise measure of changes to electoral rules than the electoral system variable discussed above. The failure event — to use survival

²The degree to which a country is democratic can be seen from the notes in parentheses behind country names. The first figure is the year in which the change was effected, the second figure is the democracy score from the POLITY database (<http://www.cidcm.umd.edu/polity/>), while the abbreviations ‘F’, ‘PF’, and ‘NF’ are taken from Freedom House (<http://www.freedomhouse.org/>) and denote ‘Free’, ‘Partially Free’, and ‘Not Free’, respectively. Both measures of democracy are shown for the year in which the change to electoral systems was effected.

		New System		
		<i>Majority System</i>	<i>Mixed System</i>	<i>Proportional Representation</i>
Old System	<i>Majority System</i>		Cameroon (2005, NF) Lesotho (2003, 8, F) Morocco (1998, -6, PF) New Zealand (1993, 10, F) Tunisia (1995, -3, NF) Ukraine (1998, 7, PF)	Macedonia (2003, 9, PF) Sri Lanka (1979, 6, F) Yugoslavia (1993, -7, PF)
	<i>Mixed System</i>	Kyrgyzstan (2006, PF)		El Salvador (1998, 7, F) Mozambique (1995, 6, PF)
	<i>Proportional Representation</i>	Papua New Guinea (1976, 10, F)	Italy (1994, 10, F) Mexico (1978, -3, PF)	

Figure 1: Episodes of electoral system change

analysis parlance — is defined as a change in the mean district magnitude for national parliamentary elections within one country. Thus, the subjects of the survival analysis are not countries, but the electoral rules of countries. Note that this approach does not distinguish between different types of changes made to electoral institutions. For instance, there is no difference between a country that dramatically increased its mean district magnitude from 1 to 25.8 — as New Zealand did in 1993 — and a country that marginally lowered its mean district magnitude from 13.9 to 11.6 — as Sweden did in 1998. Both instances are treated as change to electoral rules.

I am interested in whether we can find any systematic connection between a set of independent variables and the time electoral rules remain unchanged. As independent variables, I use the following indicators of institutional and political features:

- Whether the system used at time $t - 1$ was proportional representation
- Whether the system used at time $t - 1$ was a majority system
- The number of veto players
- The total fractionalization of the legislature (defined as the chance that a random draw will produce legislators from two different parties)
- The share of government seats in the legislature
- The degree to which the positions of parties in government are polarized

All of these variables are taken from the DPI. Additionally, data from the Polity IV database on democracy were used. Included in the sample on which the regression was performed were only countries whose democracy value exceeded 8 on the 21-point “Polity2” variable which ranges from -10 to 10 .

The independent variables were chosen for their plausibility rather than derived from a well established theoretical framework. Given the lack of such a framework, this exercise in discerning patterns in the data should be understood as exploratory rather than as a theory test.

Nevertheless, some interesting observations can be derived: Table 1 shows the results of Cox proportional hazard maximum likelihood regressions. I use a Cox survival model because it does not require specification of a baseline hazard ratio. Table 1 displays coefficients rather than hazard ratios and should be interpreted accordingly: A negative sign means that higher levels on the independent variable lower the probability that the event will occur (earlier).

Table 1: Changes of Electoral Rules

	Model 1	Model 2	Model 3
Proportional representation (Lag 1)	-1.148* (-1.80)	-1.132* (-1.75)	-12.507*** (-3.61)
Majority system (Lag 1)		0.265 (0.31)	12.676** (2.23)
Number of veto players	-0.834** (-2.48)	-0.851** (-2.51)	-2.529** (-2.38)
Total fractionalization	5.976* (1.78)	6.176* (1.83)	4.208 (0.32)
Share of government seats	-4.151* (-1.76)	-4.268* (-1.79)	-6.989 (-1.22)
Government polarization	0.335 (0.345)	0.344 (0.96)	4.356*** (2.99)
Country dummies:	No	No	Yes
N=	815	815	815
Subjects=	66	66	66
Failures=	17	17	17
Time at risk:	1177	1177	1177
LR χ^2 =	12.63**	12.72**	62.39

Cox maximum-likelihood proportional regression. Failure event: Change of mean district magnitude

*** p<0.01, ** p<0.05, * p<0.1; z-statistics in parantheses.

In model 1, proportional representation, fractionalization of the legislature and the size of the share in legislative seats the government controls show a weakly significant effect on the probability that electoral rules will be changed. While PR and government seat share are negatively related to the probability of the failure event, fractionalization increases the probability that rules will be changed. These results should be treated with caution, however, since they only border the interpretable ranges of significance. The same is not true for the veto player variable: A high number of veto player significantly reduces the probability that electoral rules will be changed.

Turning to model 2, which also includes a variable that captured whether the system used before the electoral rule change was a majority system, we observe only minor changes. Model 3 performs estimation on the same sets of parameters as model 2. Additionally, country dummies (coefficients not reported) are included to assess the claim that change of electoral rules is highly contingent on country specific circumstances. The results from model 3 indicate that this claim is true only to a certain extent: Even after controlling for country characteristics, we observe a number of significant and systematic influences on electoral rule durability. Proportional systems are significantly less likely to change their rules than majority systems. This result confirms the existence of a general trend towards more proportional systems. The veto player variable again turns out significantly and negatively related to the probability of change. Interestingly, in the model with country dummies, government polarization has a highly significant and positive effect on the probability that electoral rules will be changed. Since this variable captures the degree to which parties in government differ in their policy position, this result could be interpreted as confirming the observation that problems with the old system are a major driving force for electoral rule changes.

So far, only the occurrence of change was analyzed. Recall that no difference was made between a country lowering its mean district magnitude and a country increasing this measure of proportionality. To assess the determinants of directed change, model 4 estimates a Prais-Winsten-regression model with panel corrected standard errors. The dependent variable is change of mean district magnitude, independent variables are the same as in model 3 above. Results are shown in table 2. Whether a country had used proportional representation in the period prior to the observation has no significant impact on the direction and magnitude of change. Conversely, the existence of a majority system has a positive and significant influence on change of mean district magnitude. Majority systems are more likely to make their voting systems more proportional. Interestingly, the number of veto players in a system makes this system more prone to electoral rule changes that go towards less proportionality. To the extent that a system

Table 2: Electoral Rules: Assessing the Direction of Change

	Model 4
Proportional representation (Lag 1)	-1.023 (-1.50)
Majority system (Lag 1)	6.654*** (2.28)
Number of veto players	-0.094** (-2.15)
Total fractionalization	5.317*** (2.86)
Share of government seats	2.778 (1.63)
Government polarization	-0.365* (-1.85)
Constant	-4.2233 (-0.88)
Country dummies:	Yes
N=	835
Number of countries=	50
R^2 =	16.11
Wald χ^2 =	194.12***

Dependent variable: Change of mean district magnitude
Prais-Winsten-Regression with panel corrected standard errors and AR-1 process.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$; z-statistics in parantheses.

with a high number of veto players changes at all (cf. results from survival analysis), the changes will result in lower mean district magnitude. Fractionalization of the legislature carries a positive sign and works significantly towards more proportional voting rules. This result probably reflects the impact of a high number of small parties: These parties will only support changes that make voting rules more proportional. Finally, the coefficient on government polarization is weakly significant and negative. The higher the degree of polarization, the more change of electoral rules will result in less proportional provisions. Note that these results are derived from a regression that — like model 3 above — includes controls for idiosyncratic features of the countries in the sample. Yet again, there remain some systematic influences of variables that describe different political systems.

Summing up the results from the survival analysis and the regression results on direction of change, we observe that a high number of veto players significantly lowers the probability that a country will change its electoral rules at all. This is a highly plausible result because veto players are well known to stabilize the status quo (Tsebelis 2002). On the other hand, a high number of veto players works towards change that renders electoral rules less proportional. Together with the results from the government polarization variable (increasing the probability of change; making rules less proportional), these observations seem to confirm the assertion that dissatisfaction and functional problems arising from the old system are important determinants of electoral rules changes. Moreover, if less proportional systems are those that exhibit fewer problems on the dimension of “governability” (Dunleavy and Margetts 1995) then functional problems tend to be actually solved by electoral reform.

This result notwithstanding is the observation that systems of proportional representation tend to lower the probability that electoral rules are changed. On the other hand, once country specific characteristics are controlled for, electoral rules run a far higher ‘death’ risk in countries that have employed majority voting. This confirms the general trend towards systems that are more proportional.

Maybe most importantly, the models employing country fixed effects (models 3 and 4) show that analyzing electoral rule changes is not confined to accounts of specific circumstances in a country. There are clearly discernable, systematic effects that influence the probability and the direction of electoral rule changes.

4 Conclusion

This paper has argued that accounts of electoral system change that confine themselves to positive outcomes are insufficient to deliver a systematic explanation of this important aspect of constitutional reform. Although electoral system change is rare, some countries *did* change their electoral systems and — more broadly — their electoral rules. This observation calls for an analysis of the reasons underlying these changes; an analysis that is likely to be of limited explanatory power if only positive cases are used.

Therefore, in this paper, I have attempted to discern systematic effects of political variables on the probability and direction of electoral rule changes. It was shown that factors like the number of veto players in a system or the type of system that was in place before the change was effected, impact on both the probability and the direction of change. The fact that these variables hold up to the inclusion of country fixed effects further confirms the notion that it is possible to arrive at a general theory of electoral system change.

Of course, such a theory is still lacking. With the possible exception of Kenneth Benoit’s model of electoral system change (2004), no such theory has been developed to date. Unfortunately, the implication of Benoit’s model are hard to test empirically. As Benoit himself notes:

“Cross-national data will not yield a perfect picture, however, since motivations rather than actual outcomes are the key to the theory, and since it may not be possible using aggregate data to reconstruct each actor’s motivations and beliefs or even to know who the sides were on each electoral change.”
(Benoit 2004: 386)

Therefore, it seems worthwhile to further investigate electoral system change on both a theoretical and an empirical level. A more systematic account of “actor’s motivations and beliefs” has the potential of greatly furthering our knowledge about the causes underlying electoral system change. At the same time, as this paper has shown, it is important to consider those cases in which changes of electoral rules did not occur. A general theory of electoral system change not only has to account for instances of change but also for the long periods of stability observed in electoral rules.

Appendix: Countries in samples

Australia	Germany	Panama
Austria	Greece	Peru*
Belgium	Hungary	Poland*
Bolivia*	India	Portugal
Botswana	Ireland	Romania
Bulgaria	Israel	South Africa
Canada	Italy	Slovakia
Chile	Jamaica	Slovenia
Colombia	Japan*	Spain
Costa Rica	Lithuania*	Sweden*
Cyprus*	Macedonia*	Taiwan*
Czech Republic*	Mauritius	Thailand
Denmark	Mongolia	Trinidad-Tobago
Ecuador*	Netherlands	United Kingdom
Fiji	New Zealand*	Uruguay
Finland*	Norway	United States
France	Papua New Guinea	

*Countries in which changes to mean district magnitudes were observed

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