CONSTITUTIONS, CLEAVAGES AND COORDINATION
A SOCIO-INSTITUTIONAL THEORY OF PUBLIC GOODS PROVISION

by

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A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
(Political Science)
in The University of Michigan
2009

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To my mother, Savitree (Busparoek) Selway,
for her tireless efforts to educate me as a child
and the inspiration she left behind.

Acknowledgements

Foreword

This dissertation is ultimately about human development – improving the quality of life of the billions of people who live in low and middle income countries. This substantive topic has driven my research for the past few years, and will continue to motivate it for the foreseeable future. Undertaking research in "developing" countries has exposed me to the hopes and fears of the rural Thai villager, the Bangkok taxi driver, and the Port Louis factory worker. All these people, male and female, young and old, regardless of ethnicity or religion, yearn to improve their lives, and to develop fully their potential. They long for the social opportunities many of us in the West take for granted. My hope is that this dissertation will contribute to an improvement and ultimate fulfillment of these desires.

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Chapter 1: Introduction

"Democracy is about inclusion and exclusion, about access to power, about the privileges that go with inclusion and the penalties that accompany exclusion. In severely divided societies, ethnic identity provides clear lines to determine who will be included and who will be excluded. Since the lines appear unalterable, being in and being out may quickly come to look permanent."

DONALD HOROWITZ (1994)

"The creation of national parties . . . can [divert] attention from purely local considerations . . . to more national considerations."

GARY COX (1997)

1.1 Introduction to Dissertation

Why are some developing democracies better than others at providing public goods to their citizens? Several recent studies have explored the role of democracy in affecting public goods provision, such as health (the focus of this dissertation) and education, with mixed conclusions (Franco, Alvarez-Dardet, and Ruiz 2004; Lake and Baum 2001; Besley and Kudamatsu 2006). If democracy is not a decisively better system of government to provide for basic social opportunities, the implications for public policy are huge. The past few decades of political science theory, however, have taught us that there is significant variance in the types of democratic institutions that ultimately shape the decision-making process and distributive outcomes. The variance I focus on in this dissertation is the degree to which democratic institutions manage ethnic diversity. As Horowitz notes, democracy may be incompatible with ethnically diverse societies if excluded groups are defined on an ethnic basis. Yet there is a burgeoning

literature, to which Horowitz has contributed, that offers hope: if we can get the institutions right, the numerous benefits of democracy can be realized, regardless of diversity. This endeavor, commonly referred to as constitutional engineering, has explored a variety of institutions, such as federalism, presidentialism, and electoral rules, and the incentives they offer politicians to create good public policies. My dissertation focuses on the latter of these institutions, electoral rules, in the context of the national legislature – the primary policymaking body in most democracies. I proceed under the intuition that we should not expect electoral rules to provide the same set of incentives in every society. Indeed, this simplifying assumption—that institutions work identically in every country—has hindered both the academia and policymakers. Freed of this restriction, I systematically categorize countries on three dimensions of ethnic diversity: the number of ethnic groups, ethno-geographic cross-cuttingness and ethno-income cross-cuttingness. Why would we expect electoral rules to work the same in countries that have numerous ethnic groups that are concentrated in their own geographic regions with sharp income differences along ethnic lines as in countries that have few ethnic groups evenly dispersed around the country with similar levels of income? Explicitly modeling these three characteristics of social structure, this dissertation lays out a systematic socio-institutional theory of public goods provision.

So, what can electoral rules do to help overcome ethnic differences? If the danger of democracy in ethnically diverse societies is exclusion, the solution is inclusion. As Cox notes, political parties that cater to the nation broadly are more likely to design public policies that benefit "national considerations" such as health and education. But how can electoral rules channel ethnic diversity to build broad, national (and multi-ethnic) parties that more efficiently allocate resources to national public goods, such as health and education? To date, the institutional and ethnicity literatures have developed quite separately of each other on the question of public goods provision. To link the two literatures, I focus on an intervening variable: the nationalization of political coalitions, or the extent to which coalitions represent broad, national constituencies (constituency breadth). The ethnic diversity literature has understood nationalization as the coming together of ethnic groups into broad, multi-ethnic coalitions. Meanwhile, the party-system nationalization literature defines nationalization in more geographic terms: "the

extent to which parties have broad, national constituencies as opposed to constituencies that are primarily regional, local, or parochial in nature" (Hicken 2008). With its emphasis on the joining up of narrow geographic groups as key to the broadening of constituencies, this latter definition ignores the possibility that other social groups that are not necessarily geographic in nature (such as ethnic, religious or socio-economic groups), could hamper nationalization. Indeed, it would be fair to say that the party-system nationalization literature has largely ignored social structure.[1] Accordingly, I define nationalization as the extent to which coalitions have broad, national constituencies as opposed to sub-national constituencies based on groupings within salient social cleavages.

The institutional literature linking electoral rules to public goods provision has developed sophisticated ways of systematically comparing electoral rules in all countries, but ignored whether those rules would work differently in ethnically diverse/homogenous societies. The sociological literature, in turn, has proposed numerous mechanisms and provided ample empirical support for why ethnic diversity hampers public goods, but has, to date, ignored whether political institutions can provide incentives for ethnic groups to coordinate on public goods provision. In short, both literatures have failed to fully recognize that the effect of one is conditional on the other. Specifically, whether ethnic diversity is harmful to public goods provision depends on what electoral rules are in place; and whether electoral rules affect public goods provision is conditional on the type of society in which they operate.

Briefly, the conclusions of this dissertation are as follows: in highly fractionalized countries in which ethnic groups are not highly concentrated in their own regions, smaller majoritarian districts are better for encouraging national parties. However, in countries with low ethnic fractionalization (one large ethnic group), regardless of how they are geographically dispersed, larger PR districts lead to more national parties. These findings add, both theoretically and empirically, to the Centripetalist school of thought (Horowitz 1985; Reynolds 2002), in contrast to the orthodox school of Consociationalism associated most commonly with the work of Arend Lijphart (1999). Lijphart argues forcefully that maximizing group representation should be the goal of electoral engineering; only then will ethnic groups be willing to construct grand coalitions and engage in elite power-

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[1] Cox and Knoll (2003) is an exception to this theoretical gap.

sharing. While agreeing with Lijphart that First-Past-the-Post (FPTP) electoral rules are inferior to PR rules on these bases, centripetalists, such as Donald Horowitz and Benjamin Reilly, posit that another class of majoritarian rules, preferential systems, "can provide parties and candidates in divided societies with an incentive to 'pool votes' via the exchange of preferences [voters literally rank candidates on the ballot] between their supporters" (Reilly 2001, p.21). The idea behind centripetalism is that electoral rules should promote bargaining across ethnic lines, which "increases the chances that votes will shift from ethnic parties to non-ethnic ones" (Diamond and Plattner 2006) resulting in reduced saliency of ethnicity in the legislature. I lend support to the basic idea of the Centripetal School – promoting bargaining across ethnic lines – while emphasizing that neither ethnic party systems[2] nor FPTP necessarily lead to ethnic conflict over public goods provision. Specifically, although large PR districts may well perform better than poorly designed FPTP in ethnically divided societies, where small FPTP districts are carefully drawn around ethnic groups in order to encourage cross-ethnic voting, FPTP can be superior to PR. The key, I argue in this dissertation, is making electoral victory uncertain for the largest ethnic group, both at the district level and the national level. This can be done not only through the alternative vote (AV) system of which Horowitz and Reilly are heavy proponents (Reynolds 2002), but also through the much maligned FPTP system.

A final finding of interest is that where income is evenly spread amongst ethnic groups, the need for inclusion-facilitating institutions diminishes. One version of the centripetalist logic is that cross-ethnic voting can promote cross-cutting cleavages in the party system (Bogaards 2001). However, if society is already highly cross-cutting, or if preferences for distribution are inherently broad, institutions will have less or no effect on either the breadth of politicians' constituencies, or on the provision of public goods. It seems from these analyses that Lipset's (1960) theory that cross-cutting cleavages will dampen conflict was correct. However, the findings of this dissertation strongly suggest that properly designed institutions can compensate for the absence of cross-cutting

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[2] I broaden the nature of political alliances from parties to all types of coalitions for the following reason. While in ethnically homogenous countries, these coalitions are likely to take the form of catch-all parties, in ethnically diverse countries they may take several forms: from stable, multi-ethnic political parties to more temporary alliances of ethnic parties that form prior to elections.

cleavages in society. My measures of cross-cuttingness are taken from a new dataset, dubbed CIMMSS (*Cross-national Indices of Multi-dimensional Measures of Social Structure*), originally compiled for this dissertation. Relying on nationally-representative public-opinion surveys, I present a new measure for cross-cuttingness that differs significantly from the only existing measure to date (Rae and Taylor 1970). CIMMSS is the first multi-country dataset of its kind, and offers substantial promise for testing a host of decades-old political science theories.

1.2 The Puzzle of Public Goods Provision in Developing Democracies
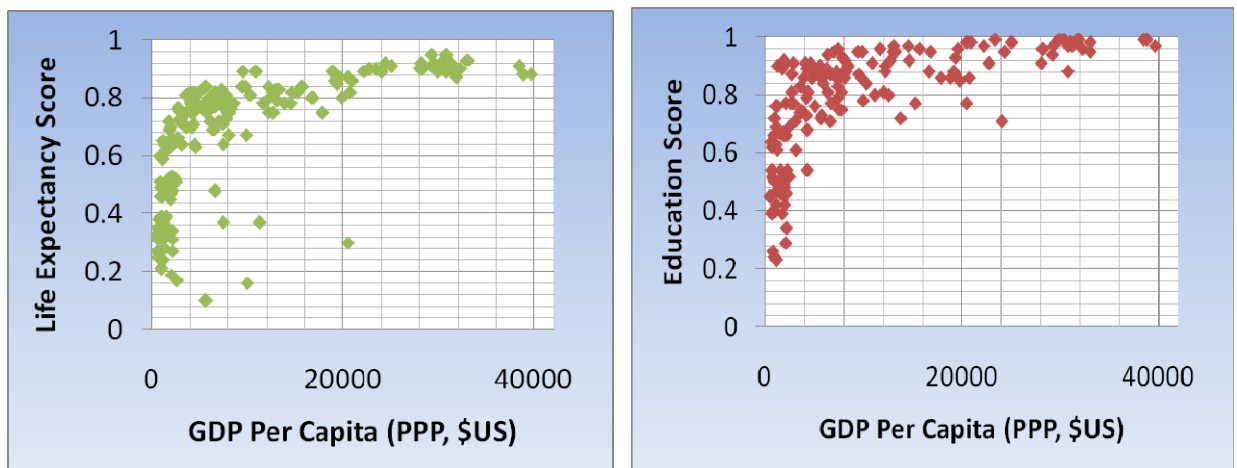
Figures 1.1 and 1.2 Scatterplot of Life Expectancy and Education Scores by GDP Per Capita, All Levels of Development

Source: United Nations Human Development Indicators, 2006.

Every year since 1990, the United Nations has published measures of human development for over 170 countries. [3]   The most popular measure, the *Human Development Index (HDI),* seeks to assess a country's achievement in three areas: "a long and healthy life, knowledge and a decent standard of living" (UNDP 2006). Countries are assigned a score on a 0-1 interval with 1 representing the highest level of human development. Despite the crudeness of these measures, they are useful in illustrating the wildly varying performance in human development. As Figures 1.1 and 1.2 show, GDP

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[3] 177 countries as of 2008.

per capita is a powerful predictor of education and health scores. However, below $12,000 – roughly the upper bound for middle-income countries – the variation is much greater; for example, some middle-income countries perform as well as high income countries, while others are comparable to the very poorest countries.

To assess which countries are under-performing given their wealth levels, I compute predicted scores for the UN health, education and composite measures. Table 1.1 shows the difference between a country's *predicted* HDI scores and its *actual* scores. The predicted scores were calculated by regressing actual scores for all middle-income countries on logged GDP and region.[4] Positive values in Table 1 indicate that a country is doing better in human development than one might predict knowing only its GDP per capita and region. Negative values indicate the converse – underachievement in human development, loosely speaking.

	Composite (Predicted-Actual)		Health (Predicted-Actual)		Education (Predicted-Actual)
Cape Verde	0.11	Cape Verde	0.27	Armenia	0.12
Mauritius	0.11	Mauritius	0.25	Kazakhstan	0.12
Armenia	0.06	Costa Rica	0.10	Belarus	0.11
Albania	0.05	Chile	0.09	Turkmenistan	0.11
Uruguay	0.05	Dominica	0.09	Ukraine	0.11
Dominica	0.05	Sri Lanka	0.09	Guyana	0.10
Chile	0.04	Albania	0.08	Azerbaijan	0.10
Philippines	0.04	Panama	0.06	Namibia	0.10
Costa Rica	0.04	Macedonia, TFYR	0.06	Philippines	0.09
Sri Lanka	0.04	Armenia	0.06	Uruguay	0.09
Panama	0.03	Bosnia and Herzegovina	0.05	Samoa (Western)	0.08
Jordan	0.03	Uruguay	0.05	Tonga	0.08
Samoa (Western)	0.03	Mexico	0.05	Russian Federation	0.08
Macedonia, TFYR	0.03	Venezuela	0.05	Latvia	0.08
Tonga	0.03	Jordan	0.05	Lithuania	0.08
Saint Lucia	0.03	Libyan Arab Jamahiriya	0.04	Mauritius	0.07
Venezuela	0.03	Lebanon	0.04	Albania	0.07
Bulgaria	0.03	Tunisia	0.04	South Africa	0.07
Bosnia and Herzegovina	0.03	Jamaica	0.03	Bulgaria	0.07

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[4] Region is measured by a dummy variable, where 1 represents South Saharan Africa and 0 otherwise. The Africa control is to account for the abnormal amount of diseases in the region and also the "unique colonial history," as (Brown 2000) puts it, which impacted the region's education systems. Also see (Englebert 2000)

Country	Value	Country	Value	Country	Value
Paraguay	0.03	Paraguay	0.03	Saint Lucia	0.06
Belarus	0.02	Croatia	0.03	Botswana	0.06
Lebanon	0.02	Saint Lucia	0.03	Cape Verde	0.06
Azerbaijan	0.02	El Salvador	0.03	Jordan	0.06
Poland	0.02	China	0.03	Poland	0.06
Argentina	0.02	Philippines	0.03	Paraguay	0.06
Peru	0.02	Egypt	0.02	Argentina	0.06
Libyan Arab Jamahiriya	0.02	Colombia	0.02	Indonesia	0.05
Latvia	0.02	Morocco	0.02	Swaziland	0.05
Lithuania	0.02	Poland	0.02	Peru	0.05
China	0.02	Belize	0.02	Venezuela	0.05
Colombia	0.02	Argentina	0.02	Fiji	0.05
Indonesia	0.01	Tonga	0.02	Romania	0.05
Croatia	0.01	Malaysia	0.02	Dominica	0.04
Ukraine	0.01	Bulgaria	0.01	Panama	0.04
Romania	0.01	St Vincent & Grenadines	0.01	Lebanon	0.04
Mexico	0.01	Samoa (Western)	0.01	Macedonia, TFYR	0.04
Jamaica	0.01	Antigua and Barbuda	0.01	Chile	0.03
Gabon	0.01	Algeria	0.01	Bosnia and Herzegovina	0.03
Guyana	0.01	Peru	0.00	Grenada	0.03
Brazil	0.00	Romania	0.00	Saint Kitts and Nevis	0.03
Fiji	0.00	Iran, Islamic Rep. of	-0.01	Brazil	0.03
Turkmenistan	0.00	Indonesia	-0.02	Gabon	0.03
St Vincent & Grenadines	0.00	Gabon	-0.02	Colombia	0.02
Thailand	0.00	Brazil	-0.02	China	0.02
Kazakhstan	0.00	Guatemala	-0.02	Libyan Arab Jamahiriya	0.02
El Salvador	0.00	Lithuania	-0.02	Sri Lanka	0.02
Malaysia	-0.01	Latvia	-0.02	Croatia	0.01
Saint Kitts and Nevis	-0.01	Azerbaijan	-0.03	Thailand	0.01
Russian Federation	-0.01	Thailand	-0.03	Costa Rica	0.01
Egypt	-0.01	Fiji	-0.03	Jamaica	0.00
Namibia	-0.01	Saudi Arabia	-0.04	Trinidad and Tobago	-0.01
Belize	-0.02	Turkey	-0.04	Mexico	-0.01
Tunisia	-0.02	Belarus	-0.05	Dominican Republic	-0.01
Trinidad and Tobago	-0.02	Trinidad and Tobago	-0.06	St Vincent & Grenadines	-0.02
Grenada	-0.02	Dominican Republic	-0.06	Malaysia	-0.03
Turkey	-0.02	Saint Kitts and Nevis	-0.06	Turkey	-0.04
Dominican Republic	-0.03	India	-0.07	El Salvador	-0.05
Antigua and Barbuda	-0.03	Ukraine	-0.07	Egypt	-0.06
South Africa	-0.03	Guyana	-0.09	Belize	-0.06
Iran, Islamic	-0.03	Turkmenistan	-0.10	Antigua and	-0.09

Rep. of				Barbuda	
Algeria	-0.04	Grenada	-0.11	Iran, Islamic Rep. of	-0.09
Guatemala	-0.04	Russian Federation	-0.12	Tunisia	-0.10
Saudi Arabia	-0.07	Kazakhstan	-0.13	Guatemala	-0.11
India	-0.07	Namibia	-0.14	Algeria	-0.12
Morocco	-0.08	South Africa	-0.17	India	-0.15
Botswana	-0.10	Botswana	-0.37	Saudi Arabia	-0.18
Swaziland	-0.11	Swaziland	-0.38	Morocco	-0.25

Table 1.1: Middle Income Countries[5], Difference between Predicted Health, Education and Composite Index Values based on GDP (logged) and controlling for Region *and* Actual Index Values.

I highlight a couple of comparisons. India and Indonesia have a GDP per capita (PPP) that is roughly equivalent, $2900 and $3900 respectively (*Central Intelligence Agency World Factbook* 2007). Both are vast countries with large and diverse populations and gained independence around roughly the same time. While we see that neither country has outstanding achievements, Indonesia is in the top half for education alongside Argentina, which had a GDP per capita of $14,500 in 2007. Indonesia slightly underperforms in health, but India seriously underperforms in both health (11th from bottom) and education (3rd from bottom). There is similar disparity between the two countries under study in this dissertation: Mauritius and Thailand. The composite score shows that Thailand does just about where expected given its GDP per capita, while Mauritius is a high performer in both health (2nd overall) and education (16th overall). These comparisons illustrate the great divergence in the provision of public goods within developing democracies. In the remainder of the dissertation, I focus on health, though the arguments are just as applicable to education and other public goods.

The rest of this chapter proceeds as follows. In the next section, I briefly discuss the definition of health as a public good. I then review the ethnicity/sociological and institutional literatures that have separately sought to explain the variation we observe in public goods provision. Following, I discuss the concept that links these two literatures – the nationalization of political coalitions. This section briefly summarizes the main arguments in this dissertation focusing on how a socio-institutional theory better explains

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[5] I define a middle-income country to have a PPP per capita of between $4,000-$14,000 in 2005. Of the 177 countries that the United Nations Human Development Report gathered data on in 2005, the sample of middle income countries includes 65, or just over a third of all countries for which data is available (in other words, the middle "third" of countries).

the strategic calculations politicians make as they decide what coalition to join and how to craft the public goods policies that will form the basis of their electoral platform. I then devote some space to a discussion of the research design and a plan of the remainder of the dissertation.

1.3 Health as a Public Good

Is Health a Public Good?

The term "public good" is used in the economics literature (primarily) to denote a good that is *non-rival*: consumption of the good by one individual does not reduce the amount of the good available for consumption by others (Samuelson 1954). An example of a *pure* public good would be fresh air. Generally, when one inhales air the amount of air others have to inhale is not affected. Public goods are frequently considered to be *non-excludable* as well; i.e., no individual can be excluded from the good's consumption. In practice, there may be no such thing as an absolutely non-rival or non-excludable good – even fresh air can be rival, for example if trapped in a mine shaft; but some goods approximate these concepts closely enough to be meaningful.

National security is generally considered to be a non-rival, non-excludable good: governments would find it difficult to exclude an individual from defense by a state's military forces and one person's enjoyment of security does not diminish others. Universal health care, in principle, is both non-rival and non-excludable.[6] While certain segments of the population may depend more heavily on universal education and healthcare, nobody is excluded; a billionaire is as equally entitled as a blue-collar factory worker to use the National Health Service in the United Kingdom. While the rich could probably do without such public programs, and may even purchase supplemental private health care, they are technically not excluded from consuming these goods. A truly national health program would benefit all age groups, regions, and ethnic and other social groups equally. Moreover, even if some segments of society do not directly partake of

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[6] In practice, however, even universal health and education are rival; since resources are not infinite, more consumed by some inevitably entails less available for others.

the publically-provided health goods, the overall well-being of these segments of society is indirectly increased via higher levels of economic development.[7]

The Public Goods Dilemma

Non-rivalness and non-excludability often cause problems for the production of public goods. Mancur Olson (1971) in his seminal work on public goods argued that uncoordinated markets fail to provide public goods in desired quantities. The logic is that because no one individual (or firm) can reap all the benefits of a good they have produced, individuals have a strong incentive to *freeride*. In other words, if you know that you can consume the good freely once it is produced, why not just wait until somebody else produces it? In terms of programs such as universal health care and education, political parties desire to free-ride on the opposition, since introducing social programs inevitably entails raising taxes, which represent political costs that may or may not be offset by the increase in social well-being.

Ronald Coase (1960) proposed a solution to the under-production of public goods caused by the freerider problem: an institutional mechanism to reduce transaction costs by which potential consumers of the good pool their resources based on their willingness to pay to create the public good. Governments can provide such a mechanism by mandating that all citizens contribute to all public goods through the taxation system. A recent World Health Organization study found that countries that had government-funded health care systems "were less likely than countries that fund their health care systems through out-of-pocket payments to have a population that suffered financial catastrophe[8]", (Xu et al. 2007). Thus, governments (as opposed to the private market) are most often the means of overcoming the freeriding problem in the provision of health goods; this

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[7] The logic is as follows: First, more expansive opportunities for education provide individual citizens with opportunities for higher skills and higher income jobs (Galor and Zeira 1993). At the national level, the country can engage in higher-technology and enter a more diverse array of industries. Second, broader access to health services promotes improved physical and mental health successively leading to better job performance and higher wages (Dasgupta and Ray 1986). A more highly educated and healthier workforce consequently leads to higher economic growth for the society in general as well as a more equal distribution of income (World Development Report: Equity and Development 2005). This relationship between social opportunities and overall societal well-being is important to my consideration of health and education as public goods.
[8] Defined as exceeding 40 percent of a household's capacity to pay in any year.

dissertation explores the effect of political institutions and social structure on governments' incentives to fulfill this role.

Local vs. National Public Goods

While goods delivered at the local level can be considered public in nature for the people living within those areas, this dissertation labels such goods "private." The reason for this distinction stems from the focus of this dissertation on the behavior of legislators. Specifically, this dissertation assumes that legislators seek to further their political career, usually through re-election (Fenno 1978).[9] One way they do this is to increase the level of goods distributed to their "private" constituency.[10] In addition, national public goods can be administered in such a way as to take a heavy private bent by being directed/allocated based on political rather than economic considerations. For example, a policy to build an international airport – a seeming national public good can be implemented in such a way as to benefit members of the winning coalition; perhaps the airport is located in a certain district for political rather than logistical or economic reasons; or the construction and financing contracts can be given to political supporters, or businesses within certain legislators' districts. Cox and McCubbins (2001) use the term "morsels" for the way such national public goods are broken up among the winning coalition. Recent work by Hicken and Simmons (2008) has shown that "morselized" public goods programs are less efficient (i.e. actually deliver less of the good).

Terminological Inconsistency in the Literature

Existing Political Science literature uses the dichotomy of redistribution vs. distribution to refer to the types of goods that tend to be produced in a country, but is closely related to the dichotomy between local vs. national public goods. Indeed, the attempt to create a typology of policies in Political Science stems back at least as far as Lowi (1964). Along the redistribution/distribution spectrum, Lowi places a third type of policy—regulation—discussing how each policy type reflects different levels of

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[9] An example of an exception to the reelection-to-further-career rule is Brazil, where national legislators' career advancement entails entry into state and/or municipal politics (Samuels 2003).
[10] See whole vein of literature on distributive politics, e.g. Weingast, Shepsle, and Johnson (1981)

cooperation amongst elites responding to different types of constituencies in society.[11] At the distributive end of the scale, elites (legislators) are unified in their catering to small societal interests (individuals and firms) reminiscent of Fenno (1978) and Weingast et al.'s (1981) conceptualization of American resource distribution. In contrast, redistribution reflects a catering to large, social groups. Inasmuch as Lowi's policy types reflect the size of constituencies to which politicians cater, political scientists now routinely refer to broad vs. narrow (particularistic) resource allocation. Indeed, although these three sets of terms are somewhat fuzzy (the different names suggest they each capture a different concept), empirically they rely on many of the same proxies. Thus, incorporating language from all three of these sets of terms we get, at one pole, governments providing broadly-redistributive, quasi-public goods – i.e. goods that benefit "broad swaths of the population";   while at the other pole, governments provide quasi-private, narrowly distributive goods – i.e. goods that benefit narrow segments of society. Rather than repeat these more precise terms throughout this dissertation, I will mostly refer to *allocation breadth*, which succinctly captures all of these concepts.

1.4 Sociological Theories of Public Goods Provision

In 1997, Easterly and Levine sought to explain *Africa's Growth Tragedy* by focusing on the higher levels of ethnic diversity characteristic of Sub-Sahara African countries. Their article sparked a wave of interest on how to best define and measure ethnic diversity (Posner 2004; Chandra and Wilkinson 2008) and what the underlying mechanisms linking ethnic fractionalization to policy outcomes were (Alesina and La Ferrara 2004; Caselli and II 2006; Habyarimana et al. 2007). Since, multiple scholars have sought to improve data on ethnicity, consider other social cleavages (religion and language) and test the effect of other characteristics of social structure (Montalvo and Reynal-Querol 2005; Alesina et al. 2003; Fearon 2003; Montalvo and Reynal-Querol 2003).

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[11] Peters et al. (1977), combining earlier work by Lijphart (1968) and Salisbury (1968), add a fourth policy type: self-regulation, asserting that these four types are not linear. Their statistical tests to evaluate whether their categorizations are meaningful, however, are not convincing.

The Logic of Ethnic Diversity and Public Goods Provision

The underlying logic linking ethnic diversity to public goods provision has taken several forms, which Habyarimana et al. (2007) have recently divided into three main families. The first family is that of preferences. For example, one member of the preferences family of arguments states that it is harder for ethnic groups to agree on public goods because of their diverse tastes (Alesina and Spolaore 1997; Easterly and Levine 1997; Alesina and LaFerrara 2005); disagreements over language of instruction in primary education, or where to expend funds on a hospital (if groups are geographically concentrated). Because ethnic groups are unable to agree on public goods, they instead focus on extracting government resources for their own benefit. Easterly and Levine (1997) describe this as a common-pool problem. With the central pool representing total government income, each group seizes its share of the pool of rents until the pool is exhausted. One way the common-pool problem may occur in an ethnically diverse society is that ministries tend to be split among ethnic groups; this can lead to "uncoordinated rent-seeking policies."[12] For example, one ethnic group controlling a given ministry may extract rents by over-valuing the exchange rate and placing strict controls on exchange to resell foreign exchange on the black market. Another ethnic group in another ministry may simultaneously set low interest rates to generate rents from loans to their ethnic supporters. These two policies work together to cause capital flight, loss of government monetary control to the black market, and higher real interest rates for government projects.

Another version of the preferences logic is that individuals derive more utility when members of their own ethnic group benefit from public goods policies. Easterly and Levine (1997) cite how the Luo, Kikuju and Kalenjin ethnic groups in Kenya rotated in power with either each other or smaller ethnic groups. As each new coalition came into power, there was a noticeable drop in road-building investment in the Opposition ethnic groups' regions accompanied by a noticeable rise in road-building investment in the winning coalition's region. Africa's ethnic diversity, then, is the cause of its growth tragedy according to Easterly and Levine.

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[12] This is Easterly and Levine's application of logic taken from Shleifer, Andrei, and Vishny (1993). Note that this is not Shleifer et al.'s argument, precisely, who merely say that different bureaucracies will engage in rent-seeking, not that each bureaucracy is necessarily occupied by a different ethnic group.

A second family of theories linking ethnic diversity to public goods provision emphasizes "common cultural material—language, experience, understandings about modes of interaction—that makes it easier for community members to communicate and work together" (Habyarimana et al. 2007). In addition, co-ethnics are easier to identify and therefore punish in the event of non-cooperation. In short, ethnicity makes collective action easier to enforce, and less diverse countries are more efficient at providing public goods.

A final mechanism focuses on the low levels of trust between ethnic groups. As such, public goods are not produced because the ethnic group in power does not trust other ethnic groups to contribute towards them following a transfer of power. Thus, each group targets resources to their own ethnic group. In the absence of a collective action mechanism, a war of attrition may arise wherein polarized ethnic groups postpone vital policy decisions while gathering information on when the other group is likely to concede. The first group to concede bears a disproportionate share of the cost. Hence, policymaking is delayed or completely obstructed (Easterly and Levine 1997; Alesina and Drazen 1991).

While not discounting the other mechanisms that may be at play, I introduce a final mechanism, suggested by Chandra (2004). Since I focus on democracies, the building of majorities that can win elections is a vital area of focus. Chandra uses the term "ethnic head counting" to refer to the process by which ethnic groups come together in coalitions to take part in governing, policymaking and resource allocation. Specific characteristics of ethnic diversity directly affect the electoral majorities that are possible. Specifically, ethnic fractionalization, or the number and relative size of ethnic groups, determines whether multi-ethnic coalitions are required. In addition, the degree ethnicity cross-cuts with other cleavages, such as socio-economic class or religion, further shapes the coalitions that might form between one ethnic group and either multiple other ethnic groups, or even part of another single ethnic group. This electoral salience of ethnicity can affect the three mechanisms described above. Specifically, ethnic groups are more likely to trust each other when they have to rely on each other in order to win elections. Party identities can replace ethnic identities, to an extent, in easing communication, cooperation, and punishment of defectors. Lastly, ethnic groups are more likely to

compromise on their "tastes" regarding certain policies if democratic elections encourage them to rely on each other for success.

Shortcomings of the Ethnic Diversity Literature

The two major shortcomings of this literature are as follows: first, concentrating on the effect of a single characteristic of social structure fails to capture the richness and depth of the concept of *ethnic diversity*. Ethnic structure entails more than just the number and relative size of ethnic groups, which the commonly-used measure of ethnic fractionalization captures. Specifically, the structure of ethnicity to other salient social cleavages, such as class and geographic region, are vital components of ethnic diversity. These two-dimensional characteristics have long been hypothesized in the Political Science literature to affect social conflict and government coordination, masquerading under the loosely-defined and poorly-measured term of cross-cuttingness. For now, we can think of cross-cuttingness as the degree that two or more cleavages divide society into the same groups. In chapter 3, I define cross-cuttingness precisely and devise an appropriate way measure the concept. However, with this basic definition in mind, imagine two societies, A and B, with equally high levels of ethnic fractionalization. In society A, the various ethnic groups tend to also be in certain socio-economic classes; in society B, there is no strong association of ethnic groups with class. Existing theory states that the more highly fractionalized a society, the greater chance there is for conflict, or the less likely groups are to agree and coordinate on public goods. However, in our two societies, there is a clear difference in the potential for agreement. Specifically, because of the strong class correlation with ethnicity in society A (the *reinforcing* society), we would expect much higher odds of disagreement, conflict and public-goods coordination failure than in society B (the *cross-cutting* society).

A second shortcoming of the Ethnic Diversity literature is that it has ignored both the possible interactive relationship *among* characteristics of social structure and the possible interactive relationship between social structure and political institutions. For example, consider a simple additive model where religious and ethnic fractionalization are hypothesized to affect economic growth. An additive model allows economic growth to be low because religious fractionalization is high (regardless of ethnic fractionalization)

and/or because ethnic fractionalization is high (regardless of religious fractionalization). Such a study, by Alesina et al. (2003), concluded that religious fractionalization had no effect on economic growth [public goods provision being the intervening mechanism] while ethnic and linguistic fractionalization did. However, the authors' model ignores the possibility that religious fractionalization may matter more, or may matter differently (i.e. work in the opposite direction), at certain levels of ethnic fractionalization. In short, the possibility of interaction is omitted. A similar disregard applies to the interaction of social structure and political institutions. For example, ethnic fractionalization may affect public goods under certain institutional configurations, but not others.

Empirical Findings to Date

A wealth of corroborating quantitative empirical evidence links ethnic diversity to public goods provision. The seminal article beginning this vein of literature is Easterly and Levine (1997), which finds that ethnic fractionalization is negatively related to economic growth through an indirect dampening effect on the quality of public policies, which include public goods provision (education and national infrastructure). Their final evidence, while not entirely consistent for their four measures of ethnic diversity and the various public policies they include, suggests (among other things) that ethnic diversity reduces the level of public goods provision.[13]

Since 1997, a number of studies directly test the effect of ethnic diversity on "public goods" provision. La Porta et al. (1999), analyzing both democracies and non-democracies, find that ethno-linguistic fractionalization hampers infant mortality, illiteracy, school attainment and infrastructure quality. In addition, the authors find that ethnic fractionalization increases the number of state-owned enterprises, which they argue is a prime source of patronage. In contrast, they find that ethnic fractionalization does not explain the size of government transfers (social security), government employment, or corruption.

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[13] A more recent study by Linzer (2003) replicated E&L's study using more recently developed measures of ethnic fragmentation (Fearon's Ethno-linguistic index and Posner's PREG). With a number of methodological tweaks as well, Linzer finds strong evidence to suggest that ethnic fragmentation still has a strong direct negative effect on economic growth after controlling for public policies.

Kuijs (2000) also looks at health and education dependent variables to assess public goods provision. He finds evidence that ethnic diversity lowers spending on health, but has no significant effect on education spending.[14] However, he does find that more ethnically diverse countries are less efficient in their provision of the actual good, measured using infant mortality, illiteracy, schooling, life expectancy and immunizations. One can detect somewhat of a constituency-breadth logic in Kuijs. He states:

> "In heterogeneous societies, those working in the public health and education systems may identify themselves less with the typical "consumer" of the systems than in homogeneous societies and . . . are more likely to be subject to patronage and competitive rentseeking behavior" (p.6).

My read of this is that public health and education decision-makers are responding to narrower constituencies.

Keefer (2007) analyzes the effect of ethnic fractionalization in "young democracies". He finds that ethnic fractionalization does *not* explain why these countries underprovide non-targeted (broad/public) goods, overprovide targeted transfers to narrow groups of voters, and engage in excessive rent seeking. Keefer uses several measures of "non-targeted" spending, which he also refers to as public goods, including gross secondary school enrollment, and several measures of "targeted" spending, such as corruption (to capture rent-seeking), government wage bill as a fraction of GDP (to capture patronage), and public investment spending as a fraction of GDP (to capture pork).

More recently, a couple of studies have investigated the pro-poor nature of health and education spending. Addison and Rahman (2001) find that ethnolinguistic fractionalization tends to reduce the relative share of primary to tertiary education spending. The authors argue that primary education is a pro-poor public good, which is underprovided in ethnically heterogeneous societies. Tandon (2007) finds that ethno-

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[14] Hicken and Simmons (2008) argue that it is not the amount spent, but the efficiency of spending. Asserting that electoral rules modify the effect of education spending on literacy rates, they present a multiplicative model. In a similar manner, ethnic diversity affects the efficiency of spending and should be interacted with spending in Kuijs' model, which might explain the negative finding on education spending in this study.

linguistic heterogeneity affects the share of government expenditure benefiting the poorest quintile, as well as the ratio of utilization at public facilities for diarrhea and acute respiratory infections by the poorest versus richest quintiles in just under 50 democracies.[15]

Moving beyond ethnic fractionalization measures, Montalvo and Reynal-Querol (2005) explore the effect of religious fractionalization and religious and ethnic polarization (which captures how close a society comes to two equally-sized ethnic or religious groups) on the size of government (ratio of real government consumption to GDP) and investment levels (ratio of real domestic investment to GDP) in 138 countries between 1960 and 1989.[16] The authors usefully take us beyond ethnic fractionalization, but the outcomes they analyze do not tell us much about the breadth of government spending, which is our focus. The same is true of Yang (2003), who attempts to measure the effect of ethnic fragmentation and ethno-income cross-cuttingness (what he calls *inter-ethnic inequality*) on fiscal policy in the United States.[17] Using census data in over 1,000 US cities, he finds that both characteristics of social structure increase total government expenditures, but decrease budget surpluses.[18] A final departure from ethno-linguistic fractionalization is Desmet et al. (2005), who combine cultural diversity with ethnic fragmentation to explain government transfers in 56 countries between 1985-1995. They find that both reduce the level of transfers when entered into separate regressions, but that ethnic fragmentation dominates when entered together additively.

In sum, then, the ethnic diversity empirical literature with few exceptions has tended to confine itself to a single proxy: ethno-linguistic fractionalization. The majority of studies find that ethno-linguistic fractionalization reduces the provision of broadly-redistributive public goods. The proxies for the dependent variable include both

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[15] Tandon is unclear as to the exact year (or years) to which his dependent variable refers.

[16] When entered into the model separately (as proxies for cultural/social diversity), Montalvo and Reynal-Querol conclude that religious and ethnic polarization increase the investment rate and decrease government consumption, whereas religious fractionalization has the opposite effect on both outcomes. Ethnic fractionalization is found to have no significant effect on these outcomes. However, when all are entered in the same model (additively), only ethnic polarization is a significant determinant of the investment rate, whereas religious polarization and fractionalization are significant determinants of government consumption, all with the same signs as above.

[17] Another recent attempt to incorporate ethno-income cross-cuttingness in the United States context is by Erik Snowberg (2008).

[18] Yang indicates that government expenditures proxy for quasi-private goods, so his finding is that more fractionalized cities result in over-spending and allocation inefficiency.

spending variables and health and education outcomes. However, less evidence emerges that ethno-linguistic fractionalization affects public goods spending.

1.5 Institutional Theories of Public Goods Provision

There have been many and diverse institutional approaches that either directly address or are closely related to the topic of public goods provision in the Political Science (and very recently the Economics) literature, such as presidentialism (Shugart 1999; Persson and Tabellini 2003; 2004i; 2004ii), bicameralism (Bradbury and Crain 2001; 2002), federalism (Rodden 2003; Treisman 2006)[19], number of veto points (Tsebelis 1995, 2002; Birchfield and Crepaz 1998), size of selectorate (Bueno de Mesquita et al. 2003), and electoral rules (Persson and Tabellini 1999, 2003, 2004i, 2004ii; Milesi-Ferretti, Perotti, and Rostagno 2002; Franzese and Nooruddin 2004; Rickard 2005; Edwards and Thames 2007). Though all are important, and should be included in a model trying to fully explain public goods provision, I focus on the latter, electoral rules, since they most heavily influence the nature of politicians' constituencies and the formation of coalitions and parties. There are several typologies of electoral rules, all of which capture something about *constituency breadth*, or the proportion of the population to which politicians are accountable.

The electoral-rules literature has deep roots in the American politics literature aimed at understanding the prevalence of narrowly-targeted budget distribution (pork) in the United States. These models, given the American context, center on the influence of single-member districts (SMD's) (Weingast, Shepsle, and Johnson 1981). Comparative work naturally extended from here by comparing SMD's to multi-member districts (MMD's). More generally, the literature refers to this distinction as *district magnitude*, the number of legislative seats available per electoral district. The larger the magnitude of the district in which a politician is elected, the larger proportion of the population to which he/she is accountable. Thus, politicians in very large districts—e.g. in the

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[19] The author is unaware of any cross-country studies that test theories of federalism. This is mostly due to the unavailability of data. For a good theoretical overview see Bednar, Eskridge and Ferejohn (2001).

Netherlands where the entire country constitutes a single, national district— will select resource allocation policies that spread benefits broadly across the nation (Franzese and Nooruddin 2004; Rickard 2005; Edwards and Thames 2007).

A second feature of electoral rules is the *electoral formula*, which determines how votes are translated into seats. At one end of the spectrum, there is the plurality rule where the candidate or party with the most votes wins, no matter how small a percentage of total votes that might be. Plurality is often referred to as *First-Past-the Post* (FPTP) or *Winner-takes-all* and I use all these terms interchangeably throughout this dissertation. At the other end of the spectrum, lies the Proportional Representation (PR) rule where parties receive a share of seats proportionate to the percentage of the total vote they obtain. Majoritarian rules (of which plurality is just one type) give political parties incentives to target resources to pivotal districts, and thus are associated with narrower resource allocation.[20] In contrast, PR rules encourage parties to spread benefits across the entire nation since every vote matters regardless of district (Milesi-Ferretti, Perotti, and Rostagno 2002). The larger and fewer the districts, the more strongly this assumption holds.

There are numerous variations on these two ideal types, majoritarianism and PR, and scholars have attempted to incorporate them in order to create a more continuous typology of electoral system types. The simplest typology is that of *proportionality*. Indeed, district magnitude is highly correlated with proportionality (Taagepera and Shugart 1989), and scholars frequently use district magnitude to capture both features simultaneously (Persson and Tabellini 2004; Rickard 2005; Edwards and Thames 2007). A second typology captures *incentives to cultivate a personal* (ICPV) vs. a party vote (Carey and Shugart 1995). The ICPV typology is composed of three elements: *ballot* (do citizens cast their ballot for a party/parties or a candidate/s, *pool* (whether votes for one candidate affect the number of seats won in that district by the party as a whole) and *vote* (how many votes they get compared to the number of seats in the district). While both *proportionality* and *incentives to cultivate a personal* capture the institutional effects on size/breadth of constituencies, in the empirical chapter, I primarily use a slight

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[20] Politicians would have little incentive to target funds either to districts they are certain to win, or to districts they are certain to lose. Thus, pivotal districts become the focus of party efforts.

variation on district magnitude that takes into consideration the number of legislators, what I call *average representation proportion (ARP)*.

Empirical Findings

The four main typologies of electoral-system breadth—majoritarianism vs. PR, proportionality, district magnitude, and incentives to cultivate a personal vote (ICPV)—have been thoroughly subjected to quantitative, empirical analysis. Persson and Tabellini (P&T) have produced a number of studies that evaluate the effect of majoritarian vs. PR systems on what they term *public goods* (1999, 2003; 2004i; 2004ii). In their earliest study (1999) using a cross-section of about 50 countries from the early 1990s, P&T present "weak evidence" that countries with PR rules tend to spend more on expenditure categories with a high (a priori) public-good content. For their dependent variable they use a summary measure of spending on education, transportation and order and safety. Transportation, especially, is seen as a narrowly-targetable budget item in the political science literature, which perhaps explains the weakness of the results. More recently (2004i), P&T find that social security/welfare spending is higher in countries with PR rules.[21] P&T use social security spending to measure the "composition of public spending towards programs benefiting large groups in the population", which sounds very much like allocation breadth. The conclusions of their 2004 piece rely on a larger number of countries (80) and include panel data for the 1990-1998 period. They also find similar results in a subset of 60 democracies, where panel data are available for a longer period.[22]

In contrast to P&T's dichotomous institutional variable, Milesi-Ferretti et al. (2002) use a nuanced measure of proportionality to evaluate the effect of electoral institutions on the "purchases of goods and services (public goods), which are easier to target geographically, and transfers, which are easier to target across social groups." Again, this distinction is similar to my concept of allocation breadth. However, unlike P&T, who refer to public goods (e.g. education) as a broad type of spending, Milesi-

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[21] P&T also find that government size, revenues and deficits are all higher in PR systems.

[22] Most recently, P&T with third co-author Gerard Roland (2007) have investigated the possibility of electoral rules affecting government policy *indirectly* by PR rules increasing the number of parties. This connection has a number of supportive empirical studies. See Bumba Mukherjee (2003), Bawn and Rosenbluth (2006), Scartascini and Crain (2002) . See also the huge Veto Players literature.

Ferretti et al. use the term public goods to refer to the narrow type of spending.[23] Nevertheless, Milesi-Ferretti et al.'s findings in terms of allocation breadth concord with P&T's. Using transfer payments (as a share of GDP) as the dependent variable, the authors find that they are higher the more proportional are the electoral rules in a sample of 20 OECD and 20 Latin American countries[24], and robust to three different measures of proportionality. Specifically, the authors test two variants of district magnitude and an ex-post measure of proportionality derived from actual election results.

Several other studies have relied on district magnitude as the dependent variable. Rickard (2005) explicitly measures the effect of district magnitude on distributive transfers. In a study of 18 OECD countries, she finds that countries with higher district magnitude tend to spend more on social welfare programs. Franzese and Nooruddin (2004), in their study of 19 OECD countries, also find a positive relationship between district magnitude and "social benefits and other transfers", but only within countries with "strong interest representation".[25] More recently, Edwards and Thames (2007) argue that the estimated effect of district magnitude in past studies is inaccurate unless other features of the electoral system are controlled for. In their study of 77 democracies between 1970 and 2000, they find that increases in district magnitude in party-centered electoral systems lead to "a higher demand for public goods spending" (measured by education spending), while increases in magnitude in candidate-centered electoral systems lead to lower public goods spending.[26] Edwards and Thames use the term public goods to refer to "spending that benefits large groups of voters", which we can again take to be simply allocation breadth. Most recently, Hicken and Simmons (2008) show that the candidate-centeredness of the electoral system, while not affecting the actual amount spent on education, determines the *efficiency* of the spending. The authors offer an

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[23] More troubling in terms of consistency, however, is that narrow targeting, measured by the sum of government consumption and government investment (net of depreciation), is higher in majoritarian countries. This proxy is more akin to P&T's measure of government size, which P&T find to be higher in PR countries.

[24] Note: the evidence is weaker in the Latin American sample.

[25] Affected by such variables as party unity, competitiveness of elections, etc.

[26] Carey and Shugart (1995) are the first to make this interactive argument, though they do not empirically test it. Chang and Golden (2007) also look at the interaction between district magnitude and one electoral-system feature that affects incentives to cultivate a personal vote (ICPV). In their study of "40-odd contemporary democratic nations," they find that political corruption gets more severe as district magnitude increases under open-list PR systems. Corruption may be a good measure of very narrow resource allocation, i.e. rent-seeking.

interesting empirical strategy, regressing the actual good, i.e. "education"—measured by illiteracy rates, on education spending interacted with candidate-centeredness, or incentives to cultivate a personal vote (ICPV). They conclude that education spending has a positive and significant effect on literacy only in countries where incentives to cultivate a personal vote are low.

This literature review would be incomplete without a discussion of Bueno de Mesquita et al.'s (2003) influential work on public goods. The authors conceive of a new institutional measure of constituency breadth that is comparable across democracies and autocracies—the size of the winning coalition (W), or the subset of the population whose support is essential for the leader to maintain power.[27] The measure of W is constructed from four dummy variables derived from three components of the Polity score, (competitiveness of executive recruitment, openness of executive recruitment, and competitiveness of participation) plus a measure of the civilian character of the regime taken from Arthur Banks' data.[28] Bueno de Mesquita et al. find that W improves the following health and education outcomes, just some of a wide range of measures for what they term "general public goods": Education Spending, Years of Education, Female Secondary Education, Illiteracy, Infant Mortality, Life Expectancy, Measles, Immunity, Death Rate, DPT Immunity, Health Spending, Social Security Spending, number of Doctors, number of Beds, and Low Birth Weight.

While the theory is intuitive and attractive, several authors have criticized the operationalization of W, and the resulting conclusions regarding public goods. Clarke and Stone (2008) not only question the noisiness of the operationalization of W, but show that, when controlling for democracy rather than *democratic residuals* (the residuals from an auxiliary regression of democracy on W), very few of the results hold. Interestingly, Clarke and Stone find that the coefficients on health and education measures are the most resilient of all Bueno de Mesquita et al.'s dependent variables, remaining significant though severely attenuated in magnitude. However, using what Clarke and Stone believe

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[27] Bueno de Mesquita et al. also divide W by the subgroup of the population that has a more-or-less formalized role in expressing preferences over possible leaders—the selectorate (S). Their empirical results are similar using W or W/S.

[28] These four variables are summed, the result is normalized to (0, 1), and the resulting variable takes five possible values. A maximum value indicates that a government is not a military regime, that the executive is not selected in unopposed elections and is not hereditary, and that there are stable political groups that compete for influence.

is a "direct measure of coalition size[29]"—a variable that measures the proportion of the electorate that voted for parties that subsequently joined the governing coalition taken from Powell (2000)—they find virtually no support for W having a significant effect on public goods provision, in the direction predicted by Bueno de Mesquita et al.

Due to the disagreement regarding the original operationalization of W, and the fact that Clarke and Stone's "better" measure only exists for twenty developed democracies, I do not attempt to run robustness checks using W as a substitute for ARP (Average Representation Proportion), my main institutional variable.[30]

In sum, empirical findings in the institutional literature to date strongly suggest that higher electoral-system breadth (PR over majoritarian, higher proportionality, larger district magnitude, and lower incentives to cultivate a personal vote) are correlated with higher social security/welfare spending and better literacy rates, while the evidence on education spending is unclear.

As emphasized several times already, the major shortcoming of the institutional literature is its failure to consider the social structure of the countries in which electoral rules operate. Does increasing district magnitude lead to effectively broader constituencies in countries where there are many ethnic groups as the majority of the empirical findings suggest happens in ethnically homogenous Western Europe? Next, I briefly review some of the rare socio-institutional studies that have tried to incorporate social structure.

1.6 Socio-Institutional Theories of Public Goods Provision

There has been little work to date interacting social structure and institutions, even though Duverger, one of the first institutionalists, stated: "A particular electoral regime does not necessarily produce a particular party system; it merely exerts pressure in the direction of this system" (Duverger 1959, p.40). Elsewhere in Duverger's work it is obvious that he subscribed to the idea that to fully understand the impact of

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[29] More accurately, they state that it is a direct measure of W/S (p.30).
[30] As mentioned above, I use *district magnitude* and *incentives to cultivate a personal vote* in my robustness section.

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institutional rules, one must consider the underlying social context in which these rules operate. Still, not much has been done in the sociological direction, the literature instead focusing on refining Duverger's institutional predictions.

INPUT BEHAVIOR

	INTEGRATED	FRAGMENTED
INTEGRATED	*DE-POLITICIZED DEMOCRACY* **REDISTRIBUTION**	*CONSOCIATIONAL DEMOCRACY* **REGULATION**
FRAGMENTED	*CENTRIPETAL DEMOCRACY* **SELF-REGULATION**	*CENTRIFUGAL DEMOCRACY* **DISTRIBUTION**

DECISIONAL SYSTEM

Figure 1.3 Type of resource allocation by society type. Peters et al. (1977).

Some early exceptions to this institutional bias in the literature are Lijphart (1968) and Salisbury (1968), which theories Peters et al. (1977) combine in Figure 1.3. The authors consider how institutions, which they called the "decisional system", interact with societal demands, which they labeled "input behavior", to affect the type of resource allocation a country tends towards. They give Sweden and the Netherlands as examples of integrated decisional systems due to the grand coalitions that are typical in these countries. In contrast, France and Great Britain are presented as fragmented decisional systems due to the division of the executive between the Prime Minister and the President in the former, and the outspoken opposition in the latter who offer a very different conception of political and social life. On the sociological dimension, Sweden and Great Britain are integrated due to the incorporation of non-governmental organizations (industry, labor, *quangos* [Great Britain] and other private associations) in policymaking. Meanwhile, the authors assert that the Dutch mass public is sharply divided, while mass groups in France are poorly organized. Lijphart, Salisbury and Peters et al. all conceived

of both these institutional and sociological dimensions in dichotomous terms: integrated and fragmented. Forty years on, Political Science has developed much richer conceptualizations and measures of the decisional system. Meanwhile, this dissertation seeks to greatly enrich existing conceptualizations of input behavior. In short, this dissertation picks up where Peters et al. left off over forty years ago, interacting social structure and political institutions to determine the type of resource allocation.

Other attempts to consider cleavages came through thinking about the geographic location of supporters of a given party (Kim and Ohn 1992; Rae 1971; Sartori 1962; Riker 1962). Over the past decade, a few attempts have been made to incorporate other social cleavages. Powell (1982) was perhaps the first to incorporate social structure and institutions into an additive model explaining the number of parties in a political system. Ordeshook and Shvetsova (1994) similarly seek to explain the number of parties. The authors make two significant extensions to Powell, however, first refining the measure of ethnic heterogeneity and second suggesting a multiplicative (or interactive) model as more appropriate.[31] They conclude that when the effective number of ethnic groups is high, "political systems become especially sensitive to district magnitude. But if ethnic fractionalization is low, then only especially large average district magnitudes result in any 'wholesale' increase in formally organized parties." Amorim Neto and Cox (1997) and Clark and Golder (2006) present evidence to support Ordeshook and Shvetsova's multiplicative specification.

Several institutional studies (Gerring and Thacker 2001; Milesi-Ferretti, Perotti, and Rostagno 2002; Persson and Tabellini 2004)) report that their results are robust to the inclusion of ethnic fractionalization, but that ethnic fractionalization itself is not significant. All studies, however, specify an additive model, ignoring the possibility that institutions interact with social structure by filtering preferences into policy outcomes. The one, recent exception to this additive specification is Morrison (2006), who interacts electoral rules and ethnic fractionalization, concluding that ethnic fractionalization decreases economic growth, but that PR systems diminish these effects. Unfortunately,

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[31] Nevertheless, Powell (1982) goes furthest in terms of the number of social cleavages he includes (three, namely ethnicity, occupation [agricultural vs. non-agricultural], and religion).

Morrison does not calculate the marginal effect of either electoral rules or ethnolinguistic fractionalization in his study, and thus does not accurately assess his hypotheses.

We are thus left with a gap in the empirical literature in terms of the interactive effect of electoral rules and social structure on the provision of public goods. Indeed, fifteen years after Ordeshook and Shvetsova's called for "a firmer theoretical footing than is available" to sort out the "the interdependencies among social structure, electoral laws, and outcomes", we still know very little about how political institutions function in different social contexts (Ordeshook and Shvetsova 1994). This dissertation seeks to fill this gap in two ways: first, by enriching our conceptualization and measurement of social structure; and second, by explicitly interacting electoral rules and social structure, i.e. specifying a multiplicative model.

1.7 Effective Constituency Breadth, Party Nationalization, and a Socio-Institutional Theory of Public Goods Provision

I define nationalization as the extent to which coalitions have broad, national constituencies as opposed to sub-national constituencies based on groupings within salient social cleavages, such as ethnicity, religion, socio-economic class, or geographic region. As noted above, the institutional literature explicitly theorized concerning the breadth of constituencies whereas the ethnicity literature explored how to develop nationalism in the face of competing ethnic groups. In other words, both these literatures address the building of broad, national constituencies, whether they conceived of them as multi-ethnic, multi-religious, cross-class or geographically encompassing. This section brings these two theoretical traditions together in a unified theory regarding how electoral rules function in different types of societies. In the context of ethnically homogenous societies, I simply borrow logic from existing institutional theories on constituency breadth, since this is their implicit assumption. In the context of ethnically diverse societies, however, I focus on the ability of electoral rules to promote the central emphasis of the Centripetal School: the reliance of candidates on the votes of members of other ethnic groups.

I start by assuming both rational candidates and voters. Candidates are purely office-seeking and want to maximize the number of votes that they receive. Voters are also rational and seek to maximize expected utility (a combination of physical and psychological benefits). In ethnically diverse countries, individuals overtly prefer to vote for members of their own ethnic group whether due to some psychological benefit, or because the expected allocation of resources is directly related to the number of co-ethnics holding power. Individuals assess these benefits, moreover, at both the district and legislative (national) level. Ideally, they would receive the most utility from electing a co-ethnic in their local district and maximizing the number of co-ethnics at the national level. However, they would unequivocally benefit more from having a single co-ethnic in the national legislature than maximizing the number of votes for a co-ethnic at the local level for the simple reason that those legislators who form the government have greater control over the allocation of resources. This makes possible the strategic exchange of votes with other ethnic groups, on which office-seeking candidates take the lead in coordinating. As such, individuals engage in ethnic head counting to maximize their expected personal benefits at these two levels of the political system (Chandra 2004). Chandra concludes in her influential book on ethnic head counting in India that individuals vote along ethnic lines only when there are sufficient incentives to do so. Crucially, she points to the size of the ethnic group vis-à-vis the threshold of winning imposed by the electoral system. In other words, when there is sufficient uncertainty about one's ethnic group being able to win, both strategic candidates and voters will look toward multi-ethnic coalitions.

Multi-ethnic coalitions come in two forms: more permanent *pre-electoral coalitions*, which I define as any agreement between two or more ethnic groups or parties to run under the same electoral label, which can include multi-ethnic parties or alliances, and more temporary *post-electoral coalitions*. Electoral rules determine the likelihood of either of these two types of multi-ethnic coalitions via the degree to which they induce politicians to rely on the votes of other ethnic groups. Specifically, PR offers no incentives for relying on other ethnic groups at the district level; the larger the districts, or the more proportional the system, moreover, the less the incentives for strategic coordination among ethnic groups and the more probable that the system relies on ad-hoc

post-electoral coalitions to form government. In contrast, majoritarianism can offer strong incentives for the centripetal dynamic of cross-ethnic voting, which leads to more permanent pre-electoral coalitions. Of course, whether candidates actually rely on the votes of other ethnic groups under majoritarianism depends on the size of the largest group in each district. If an ethnic group clearly exceeds the 50% + 1 threshold, its members are certain of electoral victory. Two characteristics of a country's overall ethnic diversity determine whether the largest ethnic group is certain of victory in each of the country's electoral districts: ethnic fractionalization and ethno-geographic cross-cuttingness (EGC). If a country has one very large ethnic group, EGC is irrelevant; the same ethnic group will be the largest group in virtually every district. Where there are many ethnic groups, however, EGC becomes crucial in determining whether there is a majority ethnic group in each electoral district. Ethnic diversity, then, primarily matters in democracies not because of diverse preferences, technology or strategy selection mechanisms that are so often posited in the ethnic diversity literature (Easterly and Levine 1999, Habyarimana et al. 2008), but because of how it affects electoral alliances and the building of legislative majorities.

Politicians are also engaged in a higher-level game to determine whether they will participate in forming the government.[32] For majoritarianism to induce pre-electoral coalitions, a majority of the districts must be uncertain over who the winner will be. This occurs when a majority of districts do not have a majority ethnic group. In addition, where the largest ethnic group at the national level is uncertain of forming a majority in the legislature, further cross-ethnic voting can be encouraged in districts where there *is* a majority ethnic group. I refer to this as the strategic trading of ethnic votes. Again, I emphasize that majoritarianism's ability to encourage cross-ethnic voting at the district level and pre-electoral coalitions at the national level depend on features of the underlying social structure. Specifically, ethno-geographic cross-cuttingness becomes crucial in preventing the largest ethnic group from simply buying off a small ethnic group. If a single, small ethnic group exists that is distributed across electoral districts so as to

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[32] Chibber and Kollman (2004) and Hicken (2008) refer to this as aggregation; Cox (1997) refers to this as linkage.

ensure victory under an alliance with the largest ethnic group, cross-ethnic voting will be muted.

Pre-electoral multi-ethnic coalitions differ from the post-electoral multi-ethnic coalitions that form under PR rules in several ways. Most importantly they result in electoral coordination concerning which districts candidates from the participating ethnic groups will contest. Post-electoral coalitions under PR do not encourage any kind of cross-ethnic voting, relying, rather, on ad hoc policy compromises. On this point, pre-electoral multi-ethnic coalitions are also superior. Specifically, pre-electoral multi-ethnic coalitions will form policies that are a/. much easier to compromise on in the face of electoral uncertainty, and b/. much harder to renege once in power since specific promises form part of the bargain. Thus, even though multi-ethnic pre-electoral coalitions and post-electoral coalitions may look identical in terms of ethnic group proportions, there is a huge substantive difference in the nature of the underlying constituencies and policy compromises.

Furthermore, in ethnically diverse societies, majoritarianism is less able to exert the constituency-narrowing effect so often proscribed to it in the institutional literature (Cain, Ferejohn, and Fiorina 1987; Carey and Shugart 1995). Because small (usually single-member) districts tend to go along with majoritarianism, individual politicians only have an incentive to win votes from a very small proportion of the country. In societies where ethnicity is salient, however, individual politicians from the same ethnic group are more likely to join cohesive, ethnically-defined parties. In other words, ethnic identity links politicians across individual electoral districts.

In sum, in ethnically-diverse societies, majoritarianism offers the possibility of encouraging cross-ethnic voting at the district level and pre-electoral multi-ethnic coalitions without the constituency-narrowing influences it exerts in non-ethnically diverse societies. Following, I systematically consider various combinations of ethnic diversity and electoral rules in terms of the building of national coalitions.

Low EGC, High EF

Consider an ethnically diverse country wherein ethnic groups are heavily correlated with income. Ethnic groups, moreover, are concentrated in their own

geographic regions (low ethno-geographic cross-cuttingness). What type of electoral rules would best encourage these groups to coordinate on public goods provision? Majoritarian rules with SMD's would mean that candidates representing their own ethnic groups would tend to win elections in each single-member district. There may be a small proportion of districts, at regional borders, that experience competition between competing ethnic groups. In these mixed districts, some cooperation amongst local candidates of different identities may emerge, e.g. two small ethnic groups joining together to defeat a larger group.
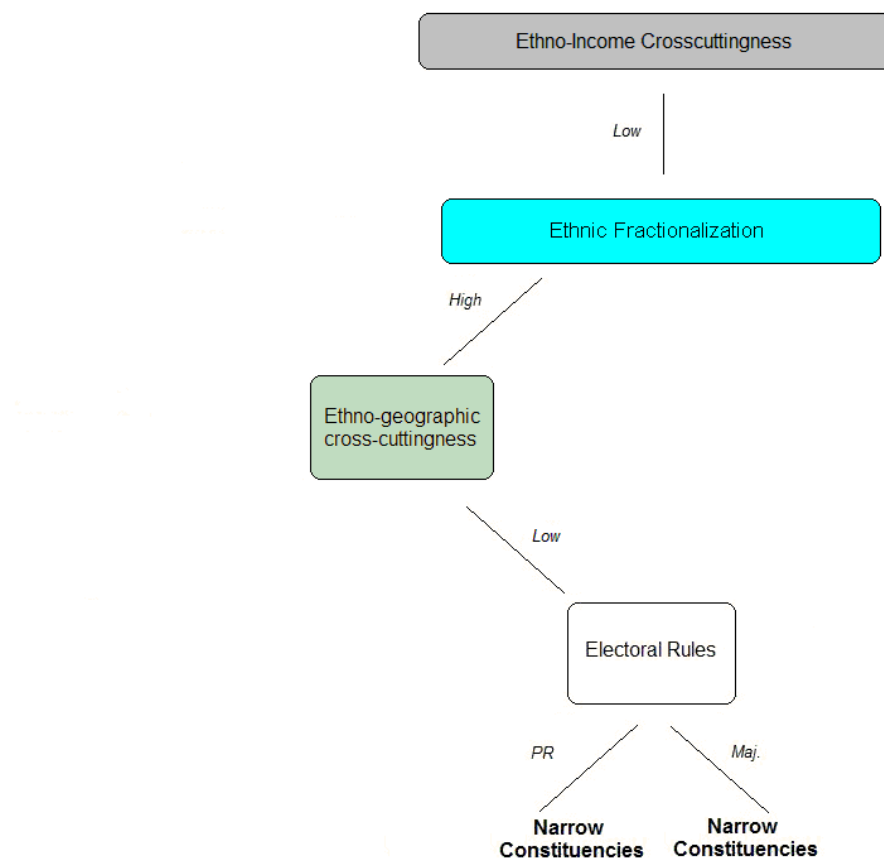
Figure 1.4a Socio-Institutional Theory of Nationalization (Effective Constituency Breadth)

However, at the national level, most legislators in parliament will have won their seat with no need to rely on other ethnic groups. Moreover, the legislature will tend to reflect the distribution of ethnic groups in the society at large. Ethnic parties will likely emerge. If no ethnic group can constitute a majority, an inter-ethnic minimum-winning coalition

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will form—larger groups will buy off smaller groups, or even individuals from smaller groups, with private goods. Although ensuring representation may indeed prevent ethnic conflict, the direct translation of "ethnic candidates" and ethnic parties to the legislature makes coordination over public goods more difficult.

Now consider changing the electoral rules in the same society to PR. In a PR system (I assume a single, national district), the legislature would again mirror the distribution of ethnic groups in society. Again, at best, an inter-ethnic minimum-winning coalition will form wherein coordination over public goods is difficult. This scenario is equivalent to that experienced under majoritarian rules since there will be no candidates dependent on the votes of other ethnic groups. Thus, in both scenarios, narrow, ethnic constituencies will form.[33] In short, in countries with *Low EGC* and *High EF*, electoral rules do not make a difference to the size of constituencies.

Medium EGC, High EF

Next, consider a similarly ethnically-diverse country with ethnic groups now dispersed a little more throughout the country, with perhaps some tendency for ethnic groups to cluster in certain areas. With majoritarian rules, it is now much easier to design district boundaries such that no majority forms at either the local or national level. Put differently, it is much harder to design district boundaries such that a single ethnic group can win a majority in every district. Even where an ethnic group constitutes a majority, as long as there are incentives in enough districts for candidates from all ethnic groups to rely on other ethnic groups, broad constituencies will form and broad public goods will be supplied. This is exactly what happens in Mauritius, one of the two cases closely explored in this dissertation. Although Hindus constitute a slight majority of the population, district boundaries make it such that most Hindu candidates must rely on members of other ethnic groups to win seats. The smaller ethnic groups also must turn to out-group members to win, with the result being the development of multi-ethnic coalitions that target resources broadly.

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[33] If a group that constitutes only a slight majority can form a government in continual elections, the likelihood of ethnic conflict, and a breakdown of democracy, is increased.

Now consider what type of constituencies would form in a Mauritius-like society if we change the rules to PR. As in the case of low ethno-geographic cross-cuttingness, PR rules give no incentives for candidates to cater to members of other ethnic groups. Mauritius has been considering moving to a PR system (or mixed system) for over a decade now due to concerns over party disproportionality. In chapter 3, I speculate on what would happen to the nature of constituencies in Mauritius were such a change to take place. My prediction for coordination among ethnic groups is not optimistic: I expect a proliferation of ethnic parties, and a breakdown in coordination over public goods.
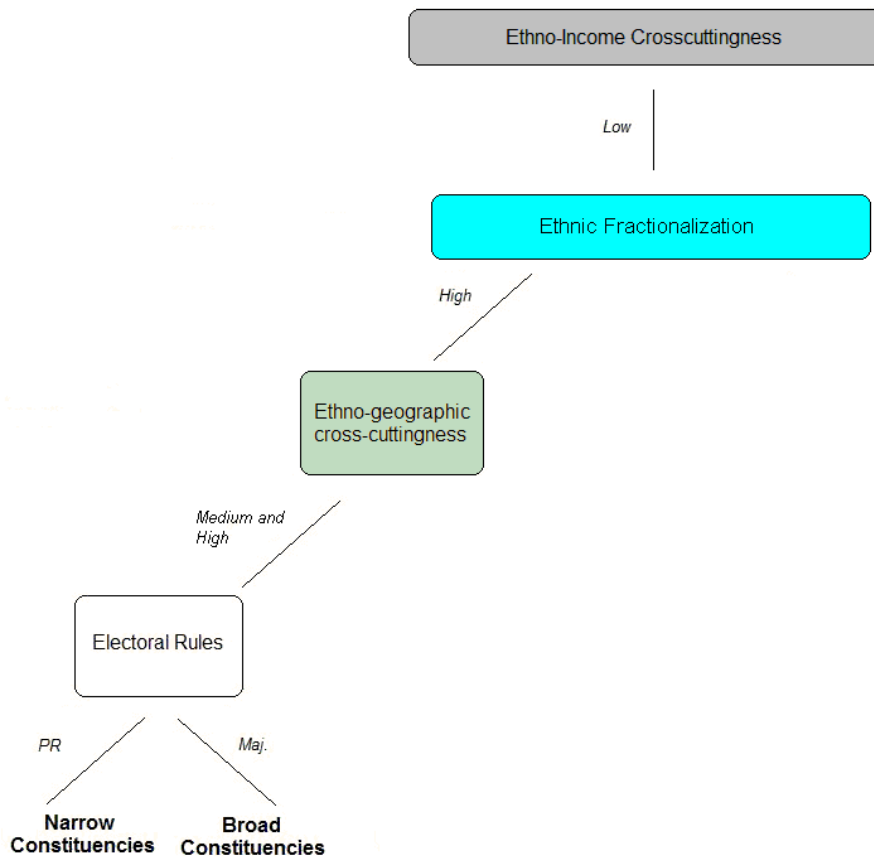
Figure 1.4b Socio-Institutional Theory of Nationalization (Effective Constituency Breadth)

High EGC, High EF

In a final analysis of ethnically diverse societies, consider the case when ethnic groups are evenly spread across districts. Majoritarianism can produce very different results depending on whether the largest group constitutes a majority of the population or not. In the case that it does, majoritarianism will produce very disproportionate results: the largest ethnic group will win all the seats. In the case that the largest group is under 50% of the population, however, Horowitz (1985) argues that the minority ethnic groups will join together against the largest ethnic group. Facing the prospect of losing to this multi-ethnic coalition will, in turn, encourage the largest ethnic group to cater to other groups. Unlike the case of medium EGC, however, the largest group can rely on the votes of the same, single ethnic group in every district, and is therefore more prone to buy off small groups through narrow spending. This latter case would be identical to the outcome under PR systems. Under majoritarian rules, however, there is at least the hope that smaller groups will consider themselves better off, as comparatively larger players in the minority ethnic groups' coalition than an insignificant partner in a coalition with the largest ethnic group.

Figure 1.4 depicts the various combinations of social structure characteristics and electoral rules. Looking at the left-hand side of the figure, where ethnic fractionalization is high, we can see that the effect of electoral rules on the size of constituencies depends heavily on the level of ethno-geographic cross-cuttingness. Where EGC is low, there is no difference in the effect of electoral rules. I expect the biggest institutional effect at medium levels of EGC where, contrary to prevailing literature, majoritarianism is best able to encourage the creation of broad, national coalitions. When EGC is high, there is also little difference in the effect of electoral rules, but majoritarianism at least offers the possibility of broader coalitions, hence the same expected outcomes as medium EGC.

Low Ethnic Fractionalization

I now turn to ethnically homogenous societies (again, where EIC is low). In such societies, neither the number of ethnic groups, nor their geographic dispersion matter. As existing institutional theory predicts, PR rules with their accompanying tendency toward larger districts, result in effectively broader constituencies. In contrast, majoritarianism,

whether due to its small districts or to incentives to target resources to pivotal districts, results in narrow constituencies and under-provision of public goods. To explain the logic in ethnic terms, where ethnic fractionalization is low, ethnicity is not electorally salient. Thus, the geographic nature of electoral districts is the biggest obstacle to constructing broad, national constituencies. Alternatively, we can think of low-fractionalization countries as having one, very large ethnic group. Regardless of electoral rules, most legislators and, indeed, most members of the governing coalition will be from that ethnic group. Since they will not fear being ejected from their dominant position, ethnicity becomes less salient to them in terms of elections. Indeed, members of the same ethnic group will be more likely to compete with each other on non-ethnic grounds, including geographic grounds induced by small, majoritarian districts. Ethnicity is not able to serve as a linkage mechanism across individuals from scattered electoral districts.
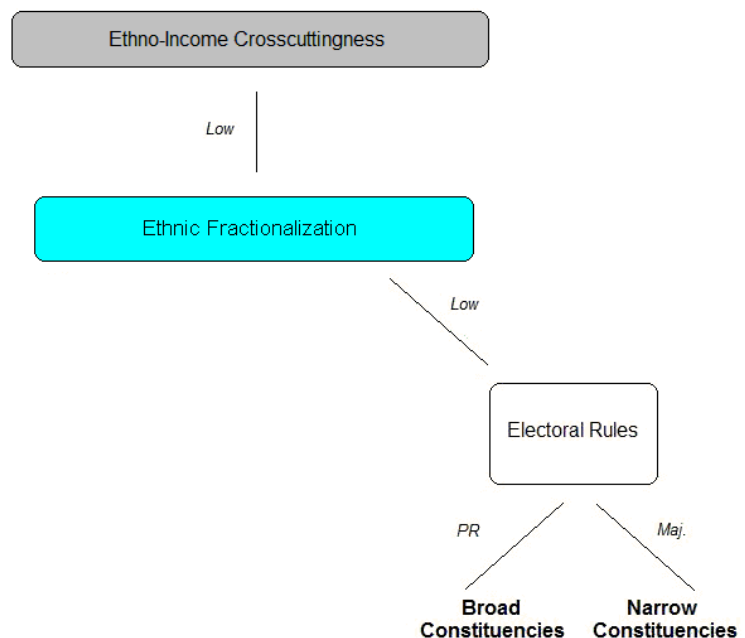
Figure 1.4c Socio-Institutional Theory of Nationalization (Effective Constituency Breadth)

Ethnic Income Cross-cuttingness

A final characteristic of social structure that affects the building of broad, national parties/coalitions is the overall salience of ethnicity in society. Above, I discussed how the relative size of ethnic groups can affect the salience of ethnicity in the elections, what

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I refer to as *electoral salience*. This is different, however, from the overall saliency of ethnicity in society, what I call, simply, *societal salience*. When societal salience is high, politicians of different ethnicities will find it harder to enter into coalitions together, whether at the district level, or at the national level. However, when ethnicity is of low salience, preferences will not be as diverse and individuals will be more willing to share resources will all ethnic groups. In other words, preferences for resource allocation are ex ante broad, and institutions are no longer needed to encourage politicians to enter into broad, national coalitions. Nevertheless, institutions can create incentives to cater to local interests through the districting mechanism explained above. I measure societal salience with ethno-income cross-cuttingness, which captures the degree that income is correlated with ethnicity.
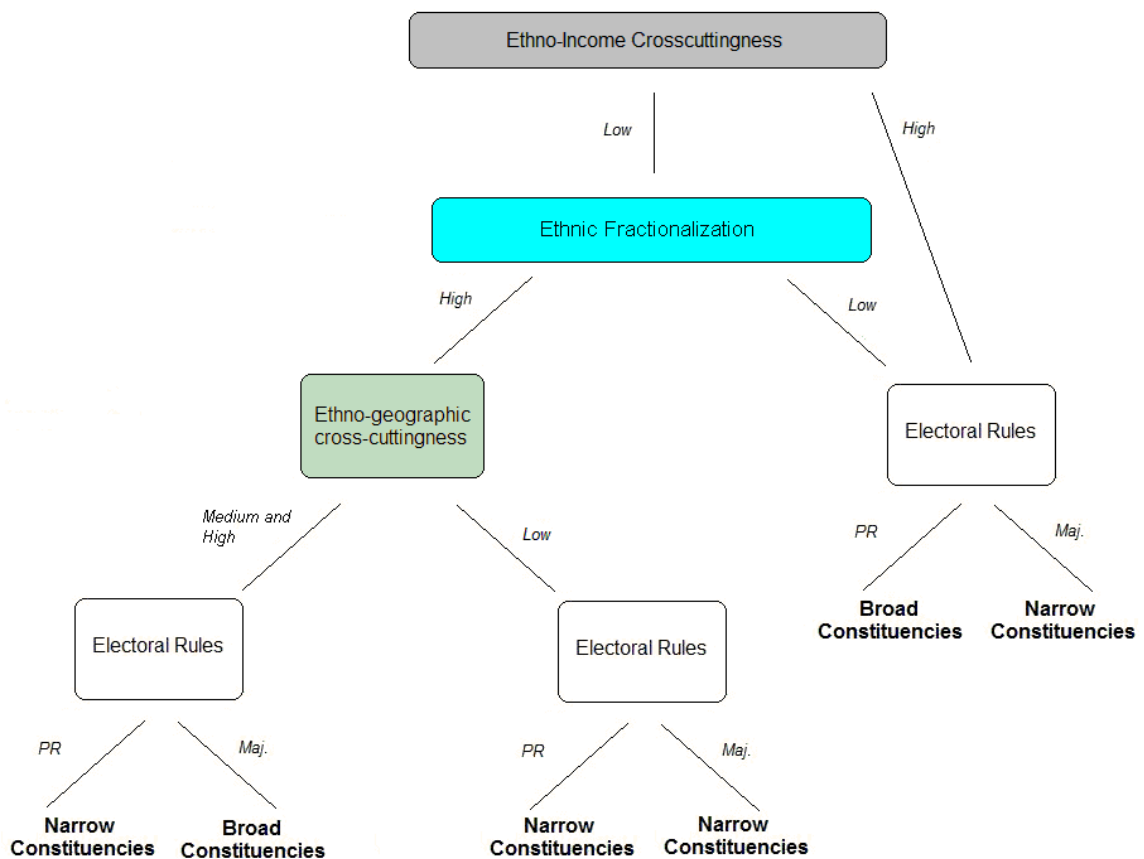
Figure 1.4d Socio-Institutional Theory of Nationalization (Effective Constituency Breadth)

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1.8 Concluding Remarks to this Introductory Chapter

The mixed empirical results concerning democracy and health and education outcomes that we considered at the beginning of this chapter are perhaps now less surprising. There is much variation in the way democracies are designed. In ethnically-diverse countries especially, appropriate electoral rules that encourage the building of broad, multi-ethnic coalitions have been more of a black box. By identifying several dimensions of ethnicity, however, I systematically construct a theory that begins to identify which rules are best for certain societies. Indeed, when ethno-geographic cross-cuttingness is moderate, majoritarianism can lead to broader constituencies in ethnically diverse societies. Thus, no single type of electoral rule is inherently harmful to public goods provision; rather, depending on the type of society in which they operate, PR and majoritarianism can be either beneficial or detrimental. A further implication of this socio-institutional theory is that, within democracies at least, ethnic diversity does not necessarily lead to the under-provision of public goods. Appropriately designed electoral rules can provide incentives for ethnic groups to work together, create national, multi-ethnic coalitions, and allocate resources to the nation at large rather responding to narrow, ethnic demands.

1.9 Research Design and Plan of the Dissertation

To test my socio-institutional theory of public goods, I follow a mixed-methods research design, taking advantage of the theory-generating strengths of qualitative research and the theory-testing strengths of quantitative research. The dissertation continues with a discussion of the concept of cross-cuttingness and the introduction of a precise definition and measure of the concept. I also describe the CIMMSS (*Cross-national Indices of Multi-dimensional Measures of Social Structure*) dataset, which I d in chapter 3 to test my theory in a time-series cross-sectional (TSCS) dataset of 43 developing democracies between 1970-2000. Chapter 3 analyzes health and education outcomes, such as life expectancy and literacy, as proxies for the breadth of resource

allocation. I find strong support for my socio-institutional theory, and, significantly, that majoritarian rules lead to better health and education outcomes in ethnically diverse societies wherein ethnic groups are moderately dispersed around the country.

In addition, the clarification of cross-cuttingness, which has long remained a fuzzy (though powerful) concept in the Political Science literature, aids in the application of my theory to two developing democracies: Thailand and Mauritius. In chapters 4, 5 and 6, I employ an *embedded, multiple-case* research design (Creswell 2007) whereby I analyze public goods (health and education) provision in two countries across two different periods of time. In chapter 4, I examine Mauritius in the period 1976-2008 and Thailand in the period 1979-1997. During these periods, both countries had virtually identical electoral rules: First-Past-the-Post (FPTP) in small multi-member districts (MMD's). The two cases were carefully chosen to be *most similar* on the institutional variable while *most different* on the sociological variable: Mauritius is an ethnically diverse country while Thailand is fairly homogenous. This design allows me to directly investigate the main puzzle of this dissertation – do electoral systems work identically in different social settings? Chapter 4 describes the mechanisms that led to the divergent effective breadth of constituencies (as manifested in the party systems) observed in Mauritius and Thailand. In Chapter 5, I link the broad, multi-ethnic party system in Mauritius to superior performance in the provision of health and education compared to the fragmented, particularistic party system witnessed in Thailand. In the Chapter 6, I then compare Thailand in the period 1997-2006 to a hypothetical Mauritius.[34] Being an embedded design, chapter 6 also compares each country at time $t + 1$ to itself at time t. Thus, this design allows me to both analyze how an identical institutional change would affect policy incentives and political behavior differently in countries with different social structure.

This design is also fortunate in its ability to control for leading alternative explanations for why one country, Mauritius, was very successful in providing universal access to its citizens, while the other, Thailand, was less so. Both countries were at similar levels of economic development in the late 1970's, following a similar pattern of

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[34] Mauritius has been contemplating electoral rule change for some years now. The most popular suggestion, a two-tier mixed FPTP and PR system, would result in a system very similar to Thailand's in the 1997-2006 period.

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export-oriented growth to become leading Tiger Economies within their own geo-political regions (Africa and Southeast Asia respectively). Both countries were also at similar starting points in terms of the underdeveloped health and education sectors they 'inherited' from previous regimes. Moreover, over the next 30 years, both countries received similar attention from international bodies such as the World Health Organization (WHO). There are, naturally, some important differences, which I address in detail later on, but here briefly state that, in the aggregate, these differences tended to make Thailand more successful than it otherwise should have been in this first period.

I illustrate how ethnically diverse Mauritius is able to overcome the tendency toward parochial ethnic parties precisely through its majoritarian electoral rules wherein boundaries are drawn to assure that no ethnic group can form a government without relying on the votes of other ethnic groups. Individual politicians in Mauritius also have incentives to appeal to other ethnic groups in order to win seats within their district. In contrast, ethnically homogenous Thailand is unable to form nationally-responsive political parties because neither the ethnic structure nor the electoral rules provide incentives for politicians to coordinate across districts. Moreover, the same electoral rules encourage intra-party competition at the district level, further narrowing the appeal of political parties.

Chapter 7 concludes.

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Chapter 2: Measuring Cross-cuttingness

2.1 Introduction

Since characteristics of social structure are central to my theory, I dedicate some space to carefully defining the concepts and measures I use in this dissertation. Moreover, very little attention has been paid in the Political Science literature to the precise definition and measure of the characteristic of cross-cuttingness. I thus resurrect a forty-year old debate in the literature, and armed with new sources of data, I construct a cross-country dataset of various cross-cuttingness indices along several dimensions of identity.

Over the past decade an explosion of literature using measures for ethnic and religious diversity to explain a variety of phenomena such as economic growth (Easterly and Levine 1997; Montalvo and Reynal-Querol 2005, 2003), civil war (Montalvo and Reynal-Querol 2005; Fearon and Laitin 2003; Collier and Hoeffler 2000, 2004), the size of government (Annett 2001), public goods provision (La Porta et al. 1999; Kuijs 2000; Keefer 2005) and the number of parties in a political system (Ordeshook and Shvetsova 1994; Amorim Neto and Cox 2002; Clark and Golder 2006) has occurred. By far the most common characteristic of social structure that appears in these studies is a measure of ethnic fractionalization first introduced by Taylor and Hudson (1972).

Fractionalization indices have come under heavy criticism for a number of reasons, ranging from accuracy and reliability to concept validity. This chapter confronts an important conceptual issue regarding the measure's ability to capture ethnic diversity: uni-dimensionality. Addressing uni-dimensionality is no trivial pursuit, since naturally most individuals in a country belong, for example, both to an ethnic and a religious group. Imagine two configurations. In a first country, all members of any given ethnic group

can always be identified with a specific religious denomination. Thus, knowing an individual's ethnic group immediately informs us of her religious identity. This is the case when the two cleavages[35] do not cross-cut at all. In a second country, knowing the ethnic identity of an individual does not help at all in identifying her religion. In this case, religious identities are identically distributed across ethnic groups; the one identity-cleavage (religion) completely cross-cuts the other identity-cleavage (ethnicity). If these two hypothetical countries were equally fractionalized on the ethnicity cleavage, and ethnic fractionalization was our sole measure of ethnic diversity, we would have an identical score for two very different societies. In the Political Science literature, we refer to the concept differentiating these two countries as *cross-cuttingness*. The latter country is said to have *cross-cutting* cleavages, while the former is said to have *reinforcing* cleavages.

Cross-cuttingness may explain better than ethnic fractionalization why Sri Lanka experiences more social conflict than the Philippines despite the latter having more ethnic groups. Specifically, in the Philippines, ethnic groups share a common religion (Catholicism), and wealth is roughly evenly distributed among ethnic groups. In Sri Lanka, however, religion reinforces ethnicity. Tamils are Hindu or Muslim, while the Sinhalese are almost exclusively Buddhist. Moreover, wealth has had a distinct ethnic dimension. In other words, cleavages are more reinforcing in Sri Lanka; neither Tamils nor Sinhalese have any incentive to make concessions to the opposing group, with whom they clash over every issue. In contrast, in the Philippines, a Cebuano may be more willing or better able to moderate her opinions on a given issue, either because she feels connected to Philippine society as a whole due to shared religion, or because she connects with other Filipinos of different ethnicity, but her own social class. Said differently, Tamils and Sinhalese are never likely to unite on any issue because they do not share identity on any salient cleavage. However, in the Philippines, a Cebuano may be opposed to an Ilocano on infrastructure spending, say, but be united with her on another issue, say education policy. In the Philippines, the teams of "us" and "them" are

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[35] I use the term *cleavage* to refer to a "division on the basis of some criteria of individuals, groups, or organizations [between] whom conflict may arise. These criteria can be ascriptive, such as race, caste, ethnicity, language, or attitudinal, i.e. ideology, preference, class, or religion." (Lane and Ersson 1994)

constantly shifting across the multifarious issues that arise. In Sri Lanka, "us" and "them" permanently and consistently reinforce across issues.

Clarity regarding the exact definition of cross-cuttingness, however, has been notably absent from the literature. Indeed, the field's focus on the concept died out in the 1970's with the onset of the Institutional Revolution. With the burgeoning of interest in cultural explanations of political and economic phenomena over the past decade, and with sources now available with which to construct cross-national indices of cross-cuttingness, the time is ripe for a thorough re-examination of the concept. In this chapter, I thus first clarify the exact meaning of cross-cuttingness, and present a mathematical measure that appropriately captures the concept. I then introduce several indices of cross-cuttingness among four key cleavages in society: ethnicity, religion, geographic region and income group. Finally, I replicate Fearon and Laitin's (2003) well-known study of civil war onset, and show that the inclusion of ethno-religious cross-cuttingness as an interactive term significantly changes the findings regarding the role of ethnic diversity in civil wars.

2.2 Single-Dimension Measures of Ethnic Diversity

Fractionalization

In a well-known study on economic growth, Easterly and Levine (1997, p.1206) hypothesize that "polarized societies will be both prone to competitive rent-seeking by the different groups, and have difficulty agreeing on public goods like infrastructure, education, and good policies . . . Ethnic diversity may increase polarization and thereby impede agreement about the provision of public goods and create positive incentives for growth-reducing policies". The authors operationalize "ethnic diversity" and "polarized societies", which terms they use interchangeably, with an index of ethnic *fractionalization* that is constructed from the Soviet *Atlas Novi Mira* dataset, and calculated using the Herfindahl Index. The Herfindahl Index measures the probability

two randomly drawn individuals from a society belong to different ethnic groups. It is given by the equation[36]:

$$F = \sum_{i=1}^{N} p_i(1-p_i) \qquad (2.1)$$

where p_i is the proportion of society that identifies with a given ethnic group. F generally increases with the number of groups in a society. In a society containing just one ethnic group (Portugal, Korea, and Iceland come closest to this) F takes a value of zero, and one in a society where all groups contain just one individual.[37] While doing no injustice to Easterly and Levine's wonderful study, note how three potentially separate characteristics of ethnicity are conflated in this brief example: polarization, diversity, and fractionalization. One aim of this chapter is to provide an element of clarity in terminology, which becomes especially important as we move to multi-dimensional characteristics of social structure.

(Bi)polarization

More recently, Reynal-Querol (2002) has developed a measure of *(bi)polarization*[38], which, like fractionalization, captures something about the number and relative size of groups in society. Rather than increasing with the number of groups, however, the RQ measure is maximized when a society is composed of two groups of equal size, and is given by:

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[36] Another form of this equation is the Herfindahl index, which gives fractionalization as $F = 1 - \sum_{i=1}^{N} p_i^2$.

This is identical to (I.1) since $\sum p_i(1 - p_i) = \sum p_i - \sum p_i^2 = 1 - \sum p_i^2$

[37] Many prefer the simple transformation of fractionalization suggested by Ordeshook and Shvetsova (1994), $N=1/(1-F)$, which yields the "effective number" of ethnic groups in a society. By this measure, Japan's score is close to one effective ethnic group, the United States' is about two-and-a-half effective groups, and Tanzania is around twenty-four effective ethnic groups.

[38] The authors (economists) simply use the term polarization. This may cause some confusion to political scientists who use the term "polarization" to refer to the distance between groups, whether cultural, geographic, socio-economic, or other. I prefer the term bipolarization.

$$B = 1 - \sum_{i=1}^{N} p_i \left(\frac{0.5 - p_i}{0.5} \right)^2 \qquad\qquad (2.2)$$

where p_i is again the proportion of society that identifies with a given ethnic group.

Numerous other single-dimension characteristics (with their accompanying measures) of ethnic diversity exist or could be potentially conceived,[39] but there is a general recognition in the literature that it is time to move beyond single-dimension proxies. Posner (2000) posits the following:

> "From the standpoint of improving our ability to generate and test hypotheses about what ethnicity does, however, the recognition that ethnic identities are *multi-dimensional* and context-bound has created significant obstacles – particularly for evaluating propositions about the effects of ethnic identities on individual-level behavior" (p.1).

In addition to the theoretical obstacles Posner discusses, failing to account for how cleavages relate introduces measurement error. Consider the literature on the number of parties. Empirical tests of Duverger's Law often use ethnic fractionalization to capture social diversity, concluding that more ethnic groups lead to more parties. However, as Stoll (2007) has recently noted, "with two groups along each of two cleavages, the number of joint groups ranges from two to four: two if the cleavages perfectly overlap [reinforce]; three if they partially cross-cut; and four if they perfectly cross-cut" (p.24). If the *number* of social groups is what determines the number of parties, then simply using ethnic fractionalization fails to measure the independent variable accurately. In the subsequent section, I address more specifically the conceptual and measurement issues relating to two- or multi-dimensional measures of social structure.

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[39] Some that have been used in the literature include: proportion of largest ethnic group, ratio of largest minority to the majority ethnic group, etc.

2.3 Conceptualizing Multi-Dimensional Measures of Ethnic Diversity

One way of thinking about how two cleavages relate to each other is to pose the question: How is cleavage x distributed amongst groups on cleavage y? There are several possible avenues down which this question might lead us, each one resulting in a different measure and relating to a unique characteristic of social structure. For example, we could think about how the ethnic cleavage is fractionalized, or bipolarized, on the religious cleavage, i.e. how many religious groups each ethnic group belongs to. Alternatively, we might wonder how *identically distributed* ethnic groups are amongst the various religious groups, regardless of the number of groups and their relative size (cross-cuttingness). This latter concept, as noted earlier, has actually existed in various literatures for several decades. Rae and Taylor (1970) attempted to formalize the concept in the Political Science field before cultural explanations fell out of favor, while Peter Blau (1974; 1984) pioneered its application to the fledgling Macro-Sociology sub-field. Unlike Blau's use of survey data to test various sociological theories in the American context, Comparative Politics lacked the necessary information to produce cross-country indices applicable to their questions, such as voting behavior or democratic stability. Moreover, after reviewing the Political Science literature, it is clear that there was a lack of clarity regarding exactly what cross-cuttingness captured that was never resolved. Thus, before introducing the indexes, I first clarify the various uses of the concept of cross-cuttingness.

Cross-cuttingness

In the past, scholars have loosely referred to *cross-cuttingness* as the extent to which two or more cleavages divide society into different groups of people; this is as opposed to two or more cleavages dividing society into the same groups of people, which has generally been referred to as *reinforcingness*. For example, if ethnic groups in a given society each belong to their own unique religion, then there is no *cross-cuttingness*, or rather there is complete *reinforcingness* of social cleavages along those ethno-religious lines.

The roots of cross-cuttingness theory are attributed to German sociologist George Simmel who in his 1908 *Soziologie* postulated relationships between a number of characteristics of macro social structure and various aspects of social life (Wolff 1950). Indeed, Simmel first introduced this notion of cross-cuttingness, arguing that cross-cutting social circles led to higher levels of individualization.

The Sociology field further developed Simmel's idea of cross-cuttingness, with Peter Blau spearheading its application to the sub-field of Macro-sociology. Blau's writings interpret "maximizing diversity of memberships across cleavages" in a very particular way (Blau 1974; Blau and Schwartz 1984). Specifically, he adheres to the "shifting coalitions" logic discussed in the Philippines/Sri Lanka example in the Introduction. His measurement of cross-cuttingness reflects the idea that diversity of membership is maximized when knowing one's group membership on one cleavage tells you nothing about his/her membership on another cleavage, and is equivalent to the statistical concept of independence. I label this conceptualization of cross-cuttingness as *pure cross-cuttingness*, or the degree groups on one cleavage are identically distributed on another cleavage. I give the formal definition below.

It is the field of anthropology, however, that should take the "credit for having [first] brought to light [cross-cuttingness'] full significance for the study of social organization" (Beteille 1960). Interestingly, however, the anthropological definition of cross-cuttingness differed from the sociological one. Beginning with Evans-Pritchard's *African Political Systems* (Evans-Pritchard 1940), social anthropologists sought to understand how societies, lacking the institution of government, nevertheless maintained an ordered existence. Gluckman's (1954) interpretation of these ethnographies emphasized *conflict of loyalties* as the key to these societies stability. Because an individual's loyalty was split in a cross-cutting society, his or her commitment to any one group was mitigated. For example, take Kroeber's (1917) description of the Zũni society: "The clans, the fraternities, the priesthoods, the *kivas* . . . if they coincided, the rifts in the social structure would be deep; by countering each other, they cause *segmentation* which produces an almost marvelous complexity, but can never break the national entity apart."[40] This cross-cutting pattern of social structure segmented society into multiple

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[40] See also among numerous: (Fortes 1945; Wagner 1940; Colson 1955)

sub-groups, each with a complex web of pressures from each salient social dimension. The anthropological use of the term seems to focus on the number of sub-groups caused by the structure of cleavages. To differentiate it from pure cross-cuttingness, then, I label this concept *cross-fractionalization*, or the degree groups on one cleavage are fractionalized on a second cleavage. Although the formal measurement of this concept is sensitive to pure cross-cuttingness, it is also sensitive to the number of groups on each cleavage, whereas pure cross-cuttingness is not. Political scientists Rae and Taylor (1970) developed a formal measure of cross-fractionalization, though note they not only used the term *cross-cuttingness,* but interchangeably referred to both underlying logics, i.e. shifting coalitions and conflict of loyalties.

Prior to the advent of the institutional revolution in Political Science, cross-cuttingness theories enjoyed wide-spread scholarly popularity in the 1950s and 1960s, on topics diverse as voting behavior, political organization (Allardt 1964; Dahl 1956; Dahrendorf 1959; Tingsten 1937; Lazarsfeld, Berelson, and Gaudet 1968; Lane 1959; Alford 1963; Lipset and Rokkan 1967) and democratic stability (Truman 1951). Most of the literature, however, does not clearly distinguish among different multi-dimensional characteristics of social structure. Like Rae and Taylor, scholars freely use the logic of both cross-cuttingness and cross-fractionalization, although only the term cross-cuttingness was ever used.

Truman's work on democratic stability, for example, focused on compromise within the group. His *group cohesion* theory argued that the "influence of the affected group depend[s] upon the conflicting loyalties of any significant segment of the group" (Truman 1951). One implication of group cohesion theory is that any one group's hold on its members' loyalty will be reduced the more groups on another cleavage its members belong to, or the more fragmented the group is on another cleavage (cross-fractionalization). I note here that, similar to the fractionalization-polarization debate of single-dimension measures, group loyalties might be the weakest when a group is divided between two equally-sized groups on another cleavage. One might then propose a measure of *cross-polarization*, or the degree groups on one cleavage are divided into two evenly-sized groups on a second.

In contrast, the voting behavior literature emphasized how *individuals'* membership in different groups with different political opinions pulled them in different political directions. The individual was said to be *cross-pressured*. Lipset (Lipset 1960, p.13) notes that "Multiple-group identification has the effect of reducing the intensity in political choices." The result is that an individual may deviate from the dominant voting pattern of a given group. Lipset's term "multiple-group identification" implies yet another multi-dimensional characteristic of social structure: the number of salient cleavages along which an individual may identify, which I label *heterogeneity*.

I have turned to cross-cuttingness theory to identify four unique concepts, or characteristics of multi-cleavage structure, masquerading as cross-cuttingness: pure cross-cuttingness, cross-fractionalization, cross-polarization, and heterogeneity. Using the example of contemporary Iraq, let me reiterate and illustrate what these different concepts capture. In Iraq, race and religion are salient cleavages. There are two main races: Arabs (75%) and Kurds (20%). Further, while almost all of the population is Muslim, it is split between the Sunni and Shiite sects. *Pure cross-cuttingness* captures the association between race and religion: how much does knowing an individual is Kurdish tell us about what his or her religion is? Alternatively, how identical is the religious distribution of Arabs and Kurds? The more identical their distributions, the weaker are ethnic group loyalties. *Cross-fractionalization* captures the number of religious groups Arabs and Kurds belong to. The more religions that dissect the ethnic groups, and the more identical Arabs and Kurds religious affiliation is, the weaker are ethnic group loyalties. *Cross-polarization* is similar, only it assumes ethnic group loyalties are weakest when ethnic groups are evenly split between two religious groups. Lastly, h*eterogeneity* simply captures the number of cleavages that are salient in Iraq (in this case, as I have described it, two). Following, I offer the formal measurement of these concepts.

In sum, (in my simplified example) Iraq has a medium-low level of cross-cuttingness: while the Arab ethnic group is fairly cross-cut by religion, the Kurdish ethnic group is reinforced by a single sect of Islam (Sunni). Cross-polarization is low. A larger proportion of Arabs are Shiite (75%) than they are Sunni (25%). Cross-fractionalization

is also low because there are only two sects of Islam in Iraq and no other religions. Finally, heterogeneity is low because only two cleavages are salient in Iraq.

A comparison of Iraq with Sri Lanka further illustrates these four multi-dimensional characteristics of social structure. Sri Lanka's social structure is similar to Iraq's in many ways if observed from single-dimension characteristics. The largest ethno-linguistic group, the Sinhalese, constitute about 74% of the population, with the Tamils about 18%.[41] Also in Sri Lanka, one ethno-linguistic group tends to belong to just one religion (Sinhalese are almost all Buddhist) and the other is split among religions (Tamils are Hindu and Muslim). However, Sri Lanka is less cross-cutting because there is no overlap of religions between the two ethnic groups in Sri Lanka as there is in Iraq. Moreover, because the smaller ethnic group (Tamils) is the one split among two religions [the larger ethnic group (Arabs) in Iraq is the one split between two sects of Islam] Sri Lanka is also less cross-proportional, less cross-fragmented, and has fewer effective sub-groups than Iraq. Heterogeneity is the same, nevertheless, because there are just two salient cleavages: ethnicity and religion.

In-Group loyalties and Inter-group Cooperation

Why were these four different multi-dimensional characteristics of social structure, then, referred to as *cross-cuttingness* in the literature? One thread that all the characteristics share is the logic of in-group loyalties. When individuals only interact with members of their own group, integration and in-group loyalties increase and intensify. Accordingly, highly integrated groups do not readily accept outsiders, and strong in-group loyalties discourage persons from leaving their groups (Blau 1974). Furthermore, when a society is composed of groups with strong in-group relations, inevitable conflicts can turn into unrelenting hostilities between the same opposing camps. However, when members of a group also belong to groups on another cleavage, the strength of the in-group relation can be mitigated. When members of the "original" group belong to different groups on another cleavage, internal disagreements in the "original" group will likely arise, which will discourage the "original" group from taking

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[41] Source: (CFR 2008)

extreme positions. Moreover, the "original" group is more likely to make concessions and piecemeal adjustments.

With weak in-group loyalties and high inter-group cooperation, ethnic/religious groups are more likely to enter into coalitions whether permanently in political parties, or temporarily in coalitions of parties or on issue conflicts. The bottom line is that, as cross-cuttingness rises, the intensity of any one cleavage is reduced, and individuals, possessing multiple identities, are affiliated with a number of intersecting groups. Conflicts in such a society lead to multiple alignments on different issues. Thus, two members of an ethnic group may be united by one issue, but take opposing stands on another. In sum, when any conflict arises, individuals are put under cross pressure because they belong to groups or have friends in groups on both sides. Thus, the four characteristics measure the strength of in-group loyalties. With reference to the ethnic cleavage, they measure the strength of loyalty to one's ethnic group.

2.4 Formulating Multi-Dimension Measures of Ethnic Diversity

I proceed now to formalize cross-cuttingness, distinguishing it from Rae and Taylor's (1970) proposed measure, which I argue actually captures a separate and unique characteristic, and from a fractionalization index of the subgroups formed from two cleavages (*subgroup fractionalization*).

Cross-cuttingness Axiom and Subgroup Fractionalization

I first define the *cross-cutting axiom*, which both my measure of cross-cuttingness and Rae and Taylor's proposed measure conform to, and that any composite measure of cross-cuttingness must meet. To introduce this axiom, I first discuss another multi-dimensional measure, subgroup fractionalization, which does not conform to the axiom.

Let a subgroup be defined as a set of individuals identified by two (or more) groups on two (or more) cleavages to which they belong.[42] For example, Latinos in the United States can be divided into subgroups according to race, e.g. afro Latinos, white

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[42] I assume an individual can only belong to one group on each cleavage

Latinos, or *indigenous* Latinos. More generally, a society with *x* groups on one cleavage and *y* groups on a second cleavage, has *x·y* potential subgroups: x_1y_1, x_1y_2, x_2y_1, and x_2y_2. Subgroup fractionalization is simply calculated using equation (2.1) with p_i representing now the proportion of each subgroup.

To assess if subgroup fractionalization adequately measures cross-cuttingness, consider two societies: Clashland and Harmonistan. In each society there are two ethnic groups, black and white, and two religions, Christian and Muslim. In both countries, 50% of the population is black and 50% is white, while 50% each are Christian and Muslim also. In Clashland, however, all of the blacks are Muslim and all the whites are Christian. Both cleavages, ethnicity and religion, reinforce each other. In Harmonistan, however, the two cleavages crosscut. Half of all blacks are Christian, as are half of all whites. Accordingly, half of both ethnic groups are Muslim.

Figures 2.1 and 2.2 represent vertical tree diagrams with the race cleavage at the first node on the tree, branching out to two groups (black and white). The numbers next to each group are percentages, which sum to unity for each node in the tree diagram. The next level on the tree is the religion cleavage, which likewise branches into two groups (Muslim and Christian). It also has row percentages that sum to one for each of the two nodes at that level. At the bottom of the tree diagram in italics are the subgroup proportions. Figure 2.1 represents Harmonistan and Figure 2 Clashland. In Figure 2.1, all subgroups—Black Christians, White Christians, White Muslims, and Black Muslims—constitute 0.25 (25%) of Harmonistan's population. In contrast, in Clashland, the proportion of both Black Muslims and White Christians is 50%, while the proportion of Black Christians and White Muslims is 0.

Black		White	
0.5		0.5	
Muslim	Christian	Muslim	Christian
0.5	0.5	0.5	0.5
0.25	*0.25*	*0.25*	*0.25*

Figure 2.1 Harmonistan

Black		White	
0.5		0.5	
Muslim	Christian	Muslim	Christian
1	0	0	1
0.5	*0*	*0*	*0.5*

Figure 2.2 Clashland

Using the Herfindahl Index of fractionalization given in Formula 2.1, we can calculate subgroup fractionalization scores for each society. Thus, Clashland has a fractionalization score of $1 - [(.5)^2 + (.5)^2] = \mathbf{0.5}$, while Harmonistan has a much higher score of $1 - [(.25)^2 + (.25)^2 + (.25)^2 + (.25)^2] = \mathbf{0.75}$. According to the usual interpretation of fractionalization indices in relation to social conflict, a higher score represents more potential for conflict. Since the cleavages in Harmonistan cross-cut, while in Clashland they reinforce each other, this score does not accurately capture the potential for conflict in these two countries.

Black		White	
0.5		0.5	
Muslim	Christian	Muslim	Christian
0	1	0	1
0	*0.5*	*0*	*0.5*

Figure 2.3 Clashland, but with all Blacks now Christian

Moreover, by making a change to Clashland's social structure we can further see how inadequate the subgroup-fractionalization measure captures cross-cuttingness. In Figure 2.3, I have moved all the Blacks in Clashland to the Christian branch. Notice that, despite a significant change in Clashland's social structure, the subgroup fractionalization score remains the same, 0.5. We can thus see where subgroup fractionalization fails to capture the concept of cross-cuttingness: it is not sensitive to the identities of the groups that compose the subgroups. This leads to the cross-cutting axiom, which stated formally is:

<u>Cross-cuttingness Axiom (Subgroup Identity Sensitivity)</u>

Cross-cuttingness is changed whenever a subgroup $x_g y_k$ (group g on cleavage x and group k on cleavage y) changes in proportionate size.

A Measure of Cross-cuttingness

Having established the axiomatic basis for cross-cuttingness measures, I now define cross-cuttingness as follows:

> *Cross-cuttingness*: Group i on cleavage x is identically distributed amongst groups on cleavage y with all other groups on cleavage x.

Cross-cuttingness is basically the concept of statistical independence, which tells us whether knowing to what group an individual belongs on x tells us anything about which group she belongs to on y. If knowing to what group on x an individual belongs tells us nothing about to what group on y she belongs, then we have perfect cross-cuttingness. In the language of probability, statistical independence means:

$$P(A|B) = P(A) \tag{2.3}$$

Alternatively, we can think of independence as meaning that it does not matter what the distribution of members of x_i is amongst groups on y, as long as they are distributed identically on y as all other groups x_{-i} (x "not-i"). Accordingly, Figure 2.4 is perfectly cross-cutting, despite the subgroup proportions not being identical.

Black		White	
0.4		0.6	
Muslim	Christian	Muslim	Christian
0.2	0.8	0.2	0.8
0.08	*0.32*	*0.12*	*0.48*

Figure 2.4 Pays de la Paix: Another perfectly cross-cutting society

Figure 2.4 shows us that in a perfectly cross-cutting society, ethnic groups are identically distributed amongst religious groups. This identically-distributed property, however, also applies to the distribution of religious groups on the ethnic cleavage.

Figures 2.5a and 2.5b show the same two perfectly cross-cutting societies in Figures 2.1 and 2.4, respectively, the only difference being that the first branch displays the religion cleavage instead of the ethnic cleavage. In short, in a perfectly cross-cutting society, groups on the religion cleavage are identically distributed across the ethnic cleavage and ethnic groups are identically distributed on the religion cleavage.

Muslim		Christian	
0.5		0.5	
Black	White	Black	White
0.5	0.5	0.5	0.5
0.25	*0.25*	*0.25*	*0.25*

Figure 2.5a Harmonistan

Muslim		Christian	
0.4		0.6	
Black	White	Black	White
0.2	0.8	0.2	0.8
0.08	*0.32*	*0.12*	*0.48*

Figure 2.5b Pays de la Paix

My measure for cross-cuttingness relies on the familiar Chi-Square test statistic for independence in basic cross-tabular analysis. The Chi-Square test statistic measures the deviation of observed proportions from expected proportions. It is given by:

$$\chi^2 \equiv \sum \frac{(O-E)^2}{E} \tag{2.4}$$

For example, consider our two perfectly cross-cutting societies once more. Table 2.1 represents the same society as does in Figure 2.5b, with the information displayed in a contingency table rather than tree diagram, and now with actual group sizes rather than simply proportions.

	Muslim	Christian	*Row %*
Black	80	120	*0.2*
White	320	480	*0.8*
Column %	*0.4*	*0.6*	*1.00*

Table 2.1 Contingency table of the perfectly cross-cuttingness society in 2.5b

The observed frequencies appear in the subgroup cells. Expected frequencies are calculated by multiplying the column and row percentages for each cell by the total sample size, which in this case is 1000. Thus, for Black Muslims in 6b, we get 0.4 x 0.2 x 1000 = 80. The chi-square statistic is calculated as follows:

$$\chi^2 = \frac{[80-80]^2}{80} + \frac{[120-120]^2}{120} + \frac{[320-320]^2}{320} + \frac{[480-480]^2}{480} = 0 \tag{2.5}$$

To make cross-cuttingness, now denoted by *C*, comparable regardless of the size of the contingency table, I use the normalization of the chi-square statistic given by Cramer (Agresti 2002). So that higher values of *C* imply higher cross-cuttingness, I subtract Cramer's V from unity, as follows:

$$C \equiv 1 - \sqrt{\left[\sum \frac{(O-E)^2}{E}\right]/nm} \tag{2.6}$$

where *n* is the sample size and *m* is the smaller of either the number of columns minus one or the number of rows minus one. Cramer's normalization is the appropriate chi-square measure where at least one of the variables is discrete in nature, and the other is either discrete or interval. For the society in Figure 6, we thus get:

$$C = 1 - \sqrt{0/(1000 \cdot 1)} = 1 \tag{2.7}$$

2.5 An Alternative Measure of Cross-Cuttingness?

Ray and Taylor (1969) derived the only cross-cutting measure that I could find in the political science literature, although its empirical use seems to have been confined to

a couple of city attitudinal comparisons in the 1970s (Budge and O'Leary 1972, 1971). The authors define cross-cuttingness as "the extent to which individuals who are in the same group on one cleavage are in different groups on the other cleavage." Note that this is identical to what I above labeled *cross-fractionalization.* Thus, starting from this different definition, they measure cross-cutting as the proportion of all the pairs of individuals, whose two members are in the same group of one cleavage but in different groups of the other cleavage. This leads to the following formula:

$$XC = \frac{A + B}{\frac{1}{2}N(N-1)}$$
(2.8)

where A is the number of pairs whose members are in the same group on the first cleavage, and B is the number of pairs whose members are in the same group on the second cleavage. The denominator denotes the total number of pairs. Assuming that N is large, so that $1/\{N(N-1)\}$ is approximately equal to $1/N^2$, Rae and Taylor show that XC can be expressed in the form:

$$CF = \sum_{x=1}^{n} p_{x.}^2 + \sum_{y=1}^{n} p_{.y}^2 - 2\sum_{x,y}^{n} p_{xy}^2$$
(2.9)

The three elements of Formula 2.9 should look familiar to those familiar with the Herfindahl Index (see Formula 2.1). Specifically, the first element is simply 1 minus the fractionalization score for the groups on cleavage x, denoted F_x. The second element is 1 − F_y, and the third element is 1 minus the subgroup fractionalization score. Thus, Formula 2.9 can be written:

$$CF = 2F_C - F_x - F_y$$
(2.10)

To see how XC and C differ, consider two societies, Harmonistan (see Figure 2.1) and Peaceland, which is displayed in Figure 2.7.

Black			White		
0.5	0.5	0.5	0.5	0.5	0.5
Muslim	Christian	Hindu	Muslim	Christian	Hindu
1/3	1/3	1/3	1/3	1/3	1/3
1/6	**1/6**	**1/6**	**1/6**	**1/6**	**1/6**

Figure 2.7 Peaceland

Since Harmonistan is perfectly cross-cutting, *C* returns the maximum value of **1**; *XC* renders the score: 2×0.75 - (0.5 + 0.5) = **0.5**. Now consider Peaceland (Figure 2.7), where Blacks and Whites are distributed identically across three religions. *C* continues to return a maximum score of **1**. *XC,* however, gives: 2×0.17 - (0.33 + 0.5) = **0.83**. We thus see that *XC* is sensitive to the fractionalization of the individual cleavages. *C* can thus be considered a "pure" measure of cross-cuttingness, while *XC* is most appropriate for measuring the characteristic of cross-fractionalization. Interestingly, testing *XC* under a variety of different hypothetical societies, I found it to conform to the cross-cutting axiom, indicating it is actually a composite measure of cross-cuttingness and fractionalization. Moreover, in the empirical section below, I demonstrate that the two measures do indeed seem to be capturing different characteristics.

Limitations and Assumptions of C

My measure for cross-cuttingness, *C,* makes several assumptions, which I wish to make plain here. First, the measures assume that group categories within cleavages are mutually exclusive. Assuming that an individual cannot share identity in multiple categories of a single cleavage becomes especially problematic in melting-pot countries such as the United States. More generally, however, this assumption may want to be relaxed, though this extension would be some undertaking. Relaxing the assumption certainly has implications for the underlying logic of cross-cuttingness theories – conflicting loyalties. If an individual can belong to more than one group within a cleavage, then certainly her level of conflicting loyalties increases.

A second assumption *C* makes is an equal level of polarization (cultural distance) among groups within cleavages. For example, the difference between being Black and

White in a given society may not be the same as the difference between being Black and Asian, or White and Hispanic. Fearon (2003)[43] offered an innovative measure of cultural distance—structural distance between languages—as a proxy for the cultural distance between ethno-linguistic groups. However, to my knowledge, similar classification systems do not yet exist for other cleavages such as race and religion.

A third assumption C makes is that all cleavages are of equal political salience. This is neither a necessary, nor an unrestrictive assumption. The measure could be adjusted, however, to allow for the weighting of cleavages. The *salience* (importance of dividing line and its associated conflicts to those involved) of different cleavages in a society has been the focus of work by Daniel Posner (2004), who has suggested detailed surveys to capture true attitudes towards different group identities within a country. Posner (2004) himself, as well as Wilkinson (2000), rely on content analysis of sampled newspapers to measure the salience of cleavages in Africa and India respectively. Alternatively, Mozaffar, Scarritt, and Galaich (2003) attempted to quantify salience by identifying groups that are 'politicized.' Their Ethnopolitical Group Fractionalization (EGF) is based on five 'objective' criteria with which they scan secondary academic resources to determine politically salient groups. Such efforts may, in the future, may be combined with the indices of cross-cuttingness presented in this chapter.

2.6 Indices of Cross-cuttingness

I introduce a new database of cross-cuttingness measures dubbed CIMMSS (*Cross-national Indices of Multi-dimensional Measures of Social Structure*). CIMMSS contains six new indices of cross-cuttingness across the following four cleavages: ethnicity, religion, geographic region, and income (class). I first describe the data sources, and then the indices themselves in terms of geographic spread and GDP-per-capita variation. Finally, I compare the empirical content of the cross-cuttingness with well-known indices of ethnic and religious fractionalization, as well as with a cross-

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[43] The measure uses the linguistic classification system, which categorizes each language into an increasingly broader group, branch, family, stock, and phylum (the broadest linguistic class).

country index of cross-fractionalization (*CF*), calculated using *XC*. The empirical data reveal that cross-cuttingness is, indeed, a distinct characteristic.

Sources

The problem with compiling indices of cross-cuttingness in the past has always been the lack of information on subgroup proportions. One possible solution is to use surveys wherein individuals are asked to identify themselves along the cleavages of interest. The most accurate type of survey would, of course, be country censuses, wherein the entire population is polled However, many countries do not collect information on ethnicity (race and/or language), and for those that do the raw data is difficult to obtain. An alternative strategy is to extract similar information from nationally representative surveys, such as public opinion surveys. Accordingly, I compiled my indices from seven sources: The World Values Survey (WVS), The Eurobarometer (EB), the Afrobarometer (AFB), the Latin American Public Opinion Project (LAPOP), the Asian Barometer (AB), the Comparative Study of Electoral Systems (CSES), and the World Health Organization (WHO). The use of several surveys also allowed me to test the robustness of my scores for a handful of countries that appeared on two or more of the surveys.

I used the ethnic and religious group categories chosen for inclusion by the survey designers, relying on their in-depth local knowledge. The alternative strategy of eliminating any group under 1% was not pursued to avoid adding to the measurement error inherent in survey sampling. However, I was able to check the quality of these categorizations by compiling indices for ethnic and religious fractionalization and bipolarization and comparing them with existing indices.

Example Calculation

So that the reader can get a sense of how *C* is calculated for an actual case, and to increase familiarity of the group categories garnered from the surveys, I take the reader through the calculation of ethno-religious cross-cuttingness for Switzerland.

	Buddhist	Hindu	Muslim	Orthodox	Other	Protestant	Catholic	Row Total	Row %
French	1	0	0	1	2	135	200	**339**	*0.31*
German	0	0	1	2	16	297	209	**525**	*0.48*
Italian	0	0	0	1	1	1	185	**188**	*0.17*
Spanish	0	0	0	0	0	2	7	**9**	*0.01*
Other	0	1	3	3	0	7	13	**27**	*0.02*
Column Total	**1**	**1**	**4**	**7**	**19**	**442**	**614**	**1088**	*0.31*
Column %	*0.001*	*0.001*	*0.004*	*0.006*	*0.017*	*0.406*	*0.564*		

Table 2.2 Ethno-religious subgroups in Switzerland
Source: World Values Survey (WVS), 1996

Table 2.2 shows the distribution of ethnic and religious groups in Switzerland. We can see that the German and French ethnic groups are quite evenly spread over two religious denominations: Protestantism and Catholicism. Germans tend to identify slightly more with Protestantism, while French identify more with Catholicism. Nevertheless, ethnicity and religion are quite cross-cutting over these groups. We can further see that the Italian ethnic group is almost entirely Catholic. This brings Switzerland's score down from what would otherwise be a fairly high score.

Table 2.3 shows the expected values for each cell. These expected frequencies are calculated by the Row% multiplied by the Column% multiplied by the total number of observations. Thus, for French Buddhists, the expected frequency is $.001 \times .31 \times 1088 =$ **0.31**, which is the value of the top-left cell in Table 2.3. The expected frequencies in Table 2.3 are then subtracted from the observed frequencies in Table 2.2, squared, and divided by the expected frequencies again. Thus, for the top left cell we get $(1 - .31)^2/.31 =$ **1.56**. We repeat this for the remaining 34 cells and sum them. This gives us the chi-square statistic, **381.20**. Next, we divide this statistic by the product of the total number of observations in the sample (1088) and the number of groups minus one in the less fractionalized of the two cleavages (4). Finally, we subtract this from unity, giving us a cross-cuttingness score of .704.

Switzerland's final cross-cuttingness score (see Appendix) is .706. This slight disparity comes from averaging the score derived from the WVS survey with two other surveys that Switzerland appears in: CSES 1999 and CSES 2003.

	Buddhist	Hindu	Muslim	Orthodox	Other	Protestant	Catholic
French	0.31	0.31	1.25	2.18	5.92	137.72	191.31
German	0.48	0.48	1.93	3.38	9.17	213.28	296.28
Italian	0.17	0.17	0.69	1.21	3.28	76.38	106.10
Spanish	0.01	0.01	0.03	0.06	0.16	3.66	5.08
Other	**0.02**	**0.02**	**0.10**	**0.17**	**0.47**	**10.97**	**15.24**

Table 2.3 Expected values of ethno-religious subgroups in Switzerland

Descriptive Statistics

Of the 168 countries with populations over 400,000 (IMF 2007), I was able to compile scores for 102 countries, or 61% of current countries, plus an additional 15 "extinct" countries. In general the indices have good regional coverage. Surveys were most readily available in Europe (West and East), the Americas, and the Asia-Pacific. Africa and the Middle East are the most underrepresented regions in my indices, with West Africa having available surveys for just 6 of the 20 countries. The figures for the remaining regions are as follows: 23 of 25 countries in Western Europe, 23 of 27 in Eastern Europe, 17 of 24 in Asia Pacific, 21 of 25 in Latin America, 10 of 22 in the Middle East and North Africa, 18 of 46 in Sub-Saharan Africa

	Average GDP Per Capita (US$)	
	All Region	Missing Countries
23/27 East Europe	10,700	5,476
10/22 Middle East	12,066	14,060
23/25 Western European	35,017	42,380
17/24 Asia Pacific	10,120	2,683
6/20 West Africa	3,039	3,195
12/26 South, East & Central Africa	3,487	2,898
21/25 Latin America	7,688	8,376
102/168 All Countries	**11,931**	**7,141**

Table 2.4 Representativeness of World Geographic Regions and of Economic Development

Since this index will be likely be used to study phenomena where the level of economic development may be an important determinant or confounding variable, it is

important to ensure that the sample of countries I have in my index are representative in terms of country wealth. The average GDP per capita of countries not included in the cross-cutting and cross-fractionalization measures are given in Table 2.4.

The difference in economic development between in- and out-sample countries is almost $5,000. However, this disparity in levels of economic development is not seriously pronounced in the regions most underrepresented in my indices. Indeed, in the Middle East and West Africa, out-sample countries actually have a higher GDP per capita. In the rest of Sub-Saharan Africa, the GDP per capita of out-sample countries is only slightly higher. Nevertheless, this difference in average GDP per capita is certainly something to be aware of when evaluating results used with these indices.

Are Empirical Measures of Cross-cuttingness and Cross-fractionalization different?
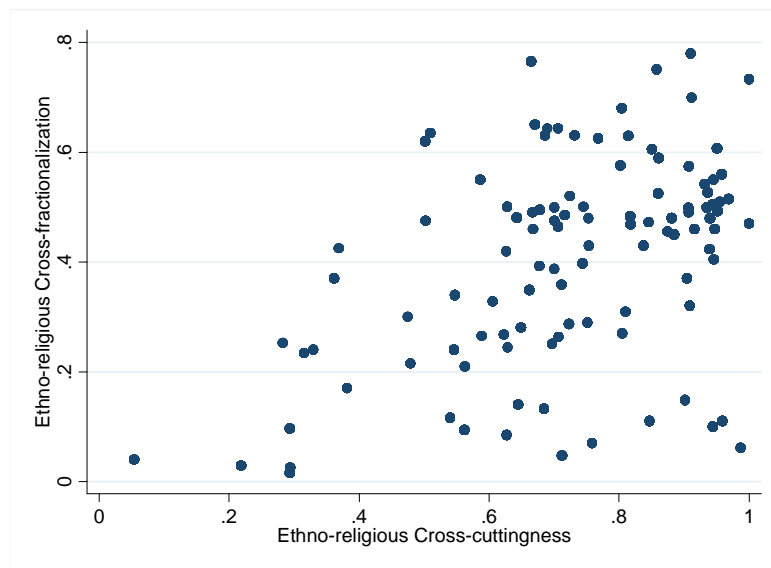
Figure 2.8 Scatterplot of Pure Cross-cuttingness versus Cross-fractionalization

Figure 2.8 shows a scatterplot of ethno-religious cross-cuttingness and cross-fractionalization. Both measures are on a 0-1 scale, though the maximum empirical value of *CF* is 0.78. While there is a moderate positive relationship (0.403 Pearson Correlation), it is clear that for the majority of observations, which lie in the right half of the graph, a country's level of pure cross-cuttingness does not easily predict its level of cross-fractionalization. That the few observations in the left half of the graph are more strongly correlated supports my earlier assertion that conceptualizations of cross-

cuttingness in past literature seem to agree on the definition of the minimum level of cross-cuttingness (reinforcingness). Indeed, from a *C* value of about 0.5 upwards, *CF* ranges almost the entire spectrum. Thus, *C* and *CF* are clearly very different characteristics.
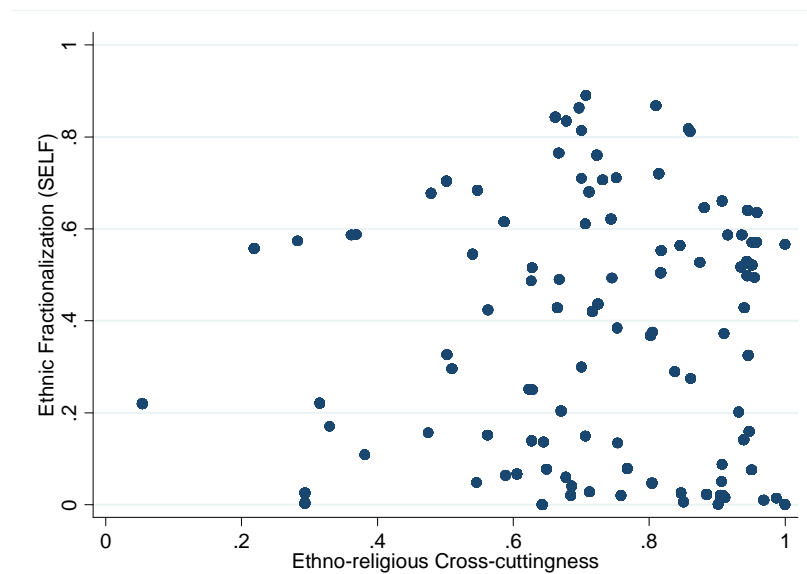
Figure 2.9 Scatterplot of Cross-cuttingness versus Ethnic Fractionalization

I turn now compare cross-cuttingness to the single-dimension characteristics of ethnic and religious fractionalization. Figures 2.9 and 2.10 show the relevant scatterplots. The cloud of observations in both figures implies that cross-cuttingness has a very low level of correlation with ethnic fractionalization (0.04) and religious fractionalization (0.13). This underscores the problem with using ethnic fractionalization as the sole measure of ethnic diversity – should we really expect the country in the bottom-left corner of Figure 2.10, Israel, to have a similar level of ethnic diversity as a country from the bottom-right corner, say Chile, just because they have a similar level of ethnic fractionalization?
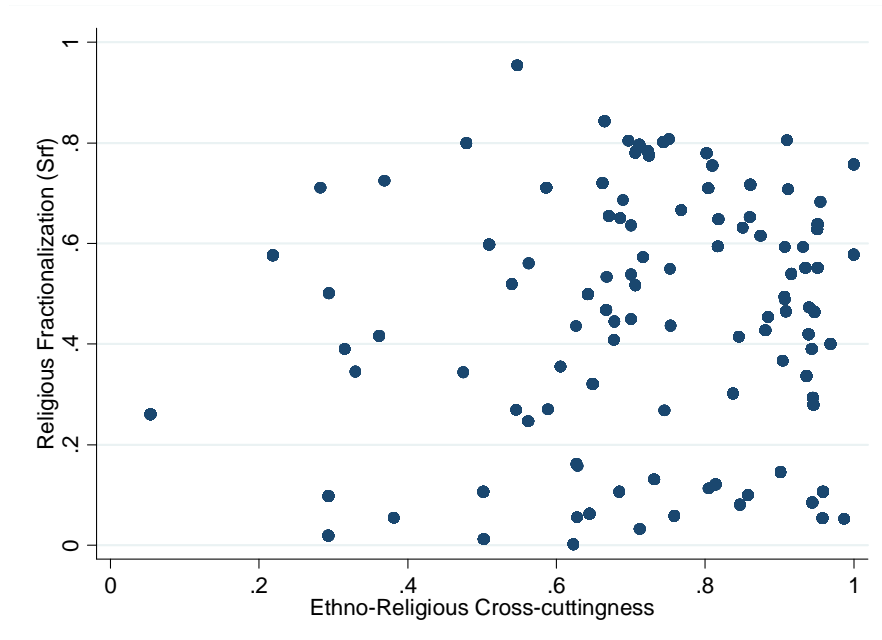
Figure 2.10 Scatterplot of Cross-cuttingness versus Religious Fractionalization

Robustness of Data

Since surveys have a certain level of measurement error, I computed ethnic and religious fractionalization and bipolarization scores and compared them with existing indices: Reynal-Querol's (2002), Fearon's (2003) Ethno-linguistic fractionalization index, and Alesina et al. (Alesina et al. 2003). Table 4 shows the correlation among indices of ethnic fractionalization. My index of ethno-linguistic fractionalization (Selway's ELF, of *SELF*) and Reynal-Querol's (RQ) account for both racial and linguistic differences. Fearon's also accounts for race and language, but additionally for religious differences in some countries. Lastly, Alesina et al. calculate separate racial and linguistic indices. *SELF* is highly correlated (>.70) with the RQ, Fearon and AlesinaRace indices. Its correlation with other indices, moreover, is similar to the correlation between those indices. RQ and Fearon, for example, correlate at 0.785. Due to the measurement error all indices are exposed to, that *SELF* correlates this highly with the other indices gives us confidence in the surveys' group categorization, which is a crucial issue for calculating cross-cuttingness since the ommitance of any one group on a given cleavage could drastically affect the cross-cuttingness score for that country.

	SELF	Reynal-Querol	Fearon	Alesina Lang	Alesina Race
SELF					
Reynal-Querol	0.714				
Fearon	0.771	0.785			
Alesina Lang	0.620	0.702	0.686		
Alesina Eth	0.796	0.785	0.907	0.666	

Table 2.5 Correlation of Ethno-linguistic fractionalization indices with *Self*

Table 2.6 shows similar bivariate correlations for indices of religious fractionalization. Surprisingly, the correlation between my religious fractionalization index (Selway's Religious Fragmentation, or *SRF*) and Reynal-Querol's is very low (.347). However, the correlation between *SRF* and Alesina' et al.'s (.733) is much higher than the correlation between Reynal-Querol and Alesina et al. (.515). Categorization, however, is an important issue for calculating cross-cuttingness, and the Reynal-Querol religious index differs significantly from the others because it includes animist religions. For now, though, we can at least take heart that *SRF* is highly correlated with Alesina et al.

	SRF	Reynal-Querol	Alesina
SRF			
Reynal-Querol	0.347		
Alesina	0.733	0.515	

Table 2.6 Correlation of Religious fractionalization indices with *SRF*

A final issue of robustness I wish to address is the consistency of measures across surveys. As I was using several surveys, there were a number of countries for which I was able to calculate several scores. In general, scores were very similar. Final scores were averaged unless there was convincing reasons to favor one over the other. Where there was significant divergence, a careful analysis of categorization was made, including comparison with existing social structure indices.[44]

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[44] The raw data, including tables from these analyses will eventually be available at the author's website http://www.umich.edu/~jselway.

Cross-cuttingness across the World

Do regions of the world differ significantly across these new cross-cuttingness indices? Table 6 displays regional scores of ethno-religious, ethno-economic, ethno-regional, religio-economic, religio-regional, and regional-economic cross-cuttingness.[45] Latin America is by far the most ethno-religiously cross-cutting, with an average score of .991 compared to a world average of .72 and .775 for the next most cross-cutting region. This stems from the overwhelming strength of Catholic religious identity in the region. The Dominican Republic is the most cross-cutting country in the world since everyone identified themselves as Catholic. Africa is the second most ethno-religiously cross-cutting, stemming from the multi-ethnic proselytizing efforts of both Christianity and Islam. Western and Eastern Europe, Asia and the Middle East have similar levels of medium ethno-religious cross-cuttingness, indicating that there is a higher tendency for different ethnic groups to belong to their own religions. The country with the lowest level of ethno religious cross-cuttingness is Israel, where Arabic-Speakers are overwhelmingly Muslim and Hebrew Speakers are almost exclusively Jewish.

Africa and the Middle-East are the least ethno-*regional* cross-cutting. This means that ethnic groups there tend to live in distinct geographical areas. The index could be interpreted as a measure of the geographical dispersion of ethnic groups. The higher the score, the more evenly dispersed ethnic groups are across the country. The average scores for Africa and the Middle East indicate a strong tendency for ethnic groups to concentrate in separate areas. In the remaining regions, ethnic groups are fairly evenly spread across the country. The religio-regional pattern is quite different in Africa and the Middle East, which makes sense due to the high levels of ethno-religious cross-cuttingness in these regions. The variance among regions of the world is also low for religio-regional cross-cuttingness.

At first glance, all regions seem to have similar levels of ethno-income cross-cuttingness. First, it should be noted that the variance for this index is much lower than for the previous two indices discussed above. The range is also much smaller, with the lowest score being .538. In other words, there seems to be a fairly good spread of wealth

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[45] Cross-fractionalization scores have only been calculated for the ethno-religious divide. Other indices will be available on author's website in the near future.

among ethnic groups – at least amongst the major ethnic groups. A small ethnic minority that is considerably worse off economically than other ethnic groups will not affect the measure so much if there is more than one ethnic group whose wealth is fairly even. A country with just two ethnic groups – one very large and one small – with disparate wealth will show up with a low score on this index. However, a country with three ethnic groups – two large and one very small – with only the smallest group being poor, will have a high score on this index. The number of groups should be analyzed carefully before drawing broader conclusions. Nevertheless, there seems to be a general pattern in the data: the wealthiest regions tend to have higher average scores on this index. Western Europe has the most even ethno-economic spread of wealth, followed by Eastern Europe, Latin America and Asia.[46] The Middle East and Africa have the most economic inequality amongst ethnic groups.

A slightly different pattern emerges for religio-economic cross-cuttingness. For every region except Western Europe/North America, the religio-economic cross-cuttingness score is higher than the ethno-income cross-cuttingness score indicating that barriers to wealth acquisition tend not to operate along religious lines. The Western Europe/North America score is the only region where religio-economic cross-cuttingness is higher than ethno-income cross-cuttingness, although only slightly so. Recall that this region had the highest level of ethno-income cross-cuttingness, and that historically ethnicity has played less of a dividing role in these societies compared to religion.

Lastly, regional-economic cross-cuttingness is lower than ethno-income cross-cuttingness in every region without exception. There is variation within world regions, nevertheless, with wealth being most evenly spread geographically in Western and Eastern Europe. Latin America has the lowest level of regional-economic cross-cuttingness.

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[46] Note that the poorest Asian and Former Soviet (Central Asian) countries are missing from the sample.

Continent		Eth-Rel	Eth-Reg	Eth-Econ	Rel-Reg	Reg-Econ	Rel-Econ
Africa	N	18	17	16	17	15	16
	Mean	*0.775*	*0.529*	*0.833*	*0.783*	*0.803*	*0.884*
	Min	0.548	0.231	0.538	0.660	0.690	0.848
	Max	0.934	0.970	0.902	0.919	0.861	0.918
	Variance	0.011	0.043	0.007	0.005	0.002	0.000
Asia-Pacific	N	20	16	16	17	15	16
	Mean	*0.632*	*0.716*	*0.870*	*0.818*	*0.827*	*0.880*
	Min	0.219	0.264	0.735	0.520	0.681	0.837
	Max	1.000	1.000	1.000	1.000	1.000	0.931
	Variance	0.046	0.067	0.003	0.011	0.006	0.001
Eastern Europe	N	24	23	19	24	22	23
	Mean	*0.650*	*0.701*	*0.887*	*0.796*	*0.842*	*0.891*
	Min	0.282	0.000	0.800	0.221	0.689	0.853
	Max	0.955	0.926	0.926	1.000	0.913	0.930
	Variance	0.029	0.060	0.001	0.021	0.003	0.000
Latin America	N	21	19	20	20	20	20
	Mean	*0.911*	*0.755*	*0.872*	*0.831*	*0.769*	*0.900*
	Min	0.706	0.435	0.749	0.554	0.538	0.834
	Max	1.000	0.894	0.938	0.904	0.881	0.928
	Variance	0.005	0.013	0.003	0.007	0.007	0.000
Middle East/N. Africa	N	10	9	9	9	8	8
	Mean	*0.668*	*0.528*	*0.857*	*0.782*	*0.797*	*0.902*
	Min	0.054	0.000	0.736	0.200	0.695	0.847
	Max	0.958	0.970	0.935	0.955	0.887	0.948
	Variance	0.097	0.114	0.004	0.056	0.004	0.001
W. Europe/N. America	N	24	16	11	20	17	18
	Mean	*0.684*	*0.769*	*0.894*	*0.846*	*0.870*	*0.892*
	Min	0.200	0.000	0.737	0.676	0.745	0.849
	Max	0.991	0.933	0.932	0.933	0.900	0.941
	Variance	0.042	0.070	0.003	0.005	0.001	0.000
All Regions	**N**	**117**	**100**	**91**	**107**	**97**	**101**
	Mean	***0.722***	***0.680***	***0.869***	***0.812***	***0.820***	***0.891***
	Min	**0.054**	**0.000**	**0.538**	**0.200**	**0.538**	**0.834**
	Max	**1.000**	**1.000**	**1.000**	**1.000**	**1.000**	**0.948**
	Variance	**0.041**	**0.061**	**0.004**	**0.014**	**0.005**	**0.001**

Table 2.7 Cross-cuttingness Indices by Region of the World

2.7 Empirical Significance

As a first effort to demonstrate the potential impact of these new indices of cross-cuttingness, I replicate part of Fearon and Laitin's (2003) study on ethnicity and civil war. The authors find that ethnic fractionalization is not a significant determinant of any of the

types of civil wars onsets they consider. Model 1 in Table 2.8 replicates Fearon and Laitin's findings for ethnic civil war onsets. Substituting my new indices of ethnic and religious fragmentation, *SELF* and *SRF*, I re-run this same regression in Model 2, finding a similar insignificant coefficient on ethnic fractionalization. In Model 3, I insert ethno-religious cross-cuttingness additively into the equation. My expectation is that as cross-cuttingness increases, the likelihood of civil war onset diminishes. We see that, although both coefficients take on the expected sign, neither of them is statistically significant.

In the final two models (4 and 5), I interact ethno-religious cross-cuttingness with the two proxies for ethnic fractionalization (Fearon and Laitin's *ethfrac* and my *SELF*). Interestingly, in both models, the coefficient on ethnic fractionalization is negative and significant at the 10% level, meaning that higher fractionalization lowers the likelihood of civil war. The coefficient on ethno-religious cross-cuttingness is also negative and significant (at the 1% level) as expected. However, since the interpretability of these significance tests are less useful given the interaction term, Kam and Franzese (2007) recommend plotting the marginal effects of ethnic fractionalization and ethno-religious cross-cuttingness.

Table 2.8. Ethnic civil war onset regressed on ethnic fractionalization, ethno-religious cross-cuttingness and a variety of control variables.

	Model 1	Model 2	Model 3	Model 4	Model 5
ethfrac	0.60				-4.72*
	(0.47)				(2.67)
relfrac	1.36**				
	(0.67)				
SELF		0.87	0.58	-5.77**	
		(0.73)	(0.66)	(3.00)	
SRF		-0.90			
		(0.80)			
ERC			-0.97	-4.51**	-4.81***
			(0.96)	(1.87)	(1.84)
ERC x SELF				9.10**	
				(4.24)	
ERC x ethfrac					8.41**
					(3.61)
Prior War	-0.87**	-1.41***	-1.38***	-1.49***	-1.35***
	(0.38)	(0.54)	(0.53)	(0.53)	(0.53)
GDP[a]	-0.33***	-0.26***	-0.27***	-0.26***	-0.20**
	(0.09)	(0.10)	(0.09)	(0.09)	(0.09)
Population[a,b]	0.39***	0.59***	0.60***	0.62***	0.57***

	(0.09)	(0.12)	(0.12)	(0.12)	(0.12)
%Mountainous	0.17	0.02	0.04	0.04	0.03
	(0.11)	(0.15)	(0.15)	(0.15)	(0.15)
Noncontiguous	0.30	0.55	0.52	0.77*	0.51
	(0.34)	(0.40)	(0.40)	(0.42)	(0.42)
Oil	1.07***	1.01**	1.22***	1.09***	0.92**
	(0.33)	(0.45)	(0.41)	(0.42)	(0.41)
New State	1.92***	2.33***	2.24***	2.29***	2.14***
	(0.40)	(0.55)	(0.54)	(0.55)	(0.54)
Instability	0.40	0.49	0.49	0.55	0.46
	(0.31)	(0.41)	(0.41)	(0.41)	(0.41)
Democracy[a,b]	0.02	0.02	0.02	0.02	0.02
	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)
Constant	-8.96***	-10.27***	-9.99***	-7.86***	-7.24***
	(0.95)	(1.40)	(1.51)	(1.60)	(1.72)
N	6239	4426	4426	4426	4443
Pseudo R²	0.14	0.19	0.19	0.20	0.19

All variables as described by Fearon and Laitin (2003). Dependent variable is *ethonset:* as coded by Fearon and Laitin, civil wars were coded as ethnic where the fighters were mobilized primarily along ethnic lines. *Prior War*: one-year lag of dependent variable; *GDP*: GDP per capita lagged one year; *Population*: log of total population size lagged one year; *%Mountainous*: Percentage of the total land area that is mountainous; *Noncontiguous*: dummy variable for states with noncontiguous territory (coded by Fearon and Laitin); *Oil*: dummy variable for states in which fuel exports exceeded one third of export revenues, using World Bank data; *New State*: dummy variable for whether a state is in its first and second years of independence; *Instability*: dummy variable indicating whether the country had a 3-or-greater change on the Polity IV regime index in any of the three years prior to the country-year in question; *Democracy*: uses the Polity IV regime index that scores nations on a scale of -10 (least democratic) to 10 (most democratic).
*Standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%*
[a] *Lagged one year;* [b] *Logged*

Figures 2.11 and 2.12 plot the marginal effects of ethnic fractionalization and ethno-religious cross-cuttingness, respectively. In Figure 2.11, we see that the marginal effect of ethnic fractionalization is negative at low levels of cross-cuttingness, but positive at high levels of cross-cuttingness. However, this marginal effect is only significant at high levels (>.7) of cross-cuttingness, perhaps explaining why ethnic fractionalization, entered into this model by itself, is not significant. In other words, I find that ethnic fractionalization does increase the likelihood of ethnic civil war onset, but only in countries with high levels of cross-cuttingness. Turning to Figure 2.12, we also see that the marginal effect of ethno-religious cross-cuttingness depends on the level ethnic fractionalization. Specifically, ethno-religious cross-cuttingness has a negative and significant effect on ethnic civil war onset only in countries with low ethnic fractionalization (<.2). These results merely scratch the surface of what could entail numerous research agendas harnessing these new indices.
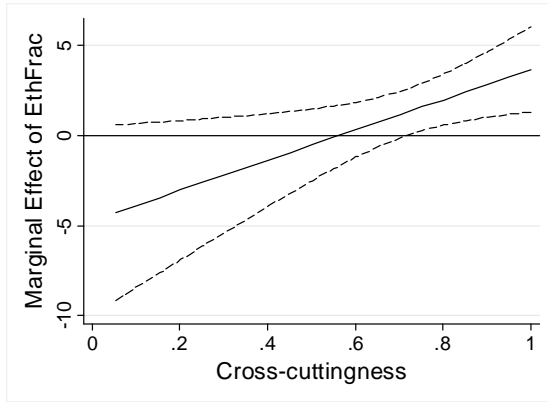
Figure 2.11 The marginal effect of ethnic fractionalization (*ethfrac*) on ethnic civil war onset across values of ethno-religious cross-cuttingness.
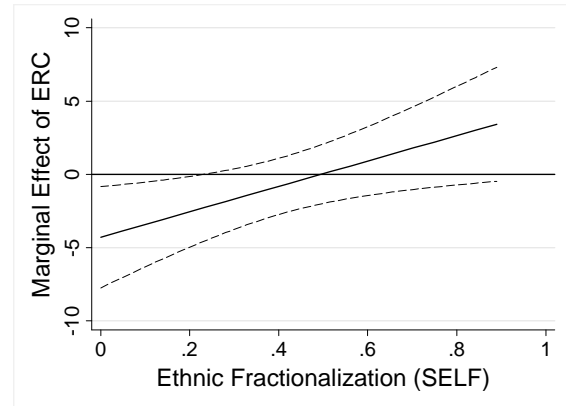
Figure 2.12 The marginal effect of ethno-religious cross-cuttingness (ERC) on ethnic civil war onset across values of ethnic fractionalization.

2.8 Conclusion

Several active research programs in the economics and political science disciplines rely on measures of ethnic and religious diversity for empirical evaluation. The indices presented in this chapter represent the first attempt at moving beyond single-dimension measures, and can be used in combination with existing single-dimension measures such as ethnic fractionalization and polarization. In addition, I provide new single-dimension indices relying on the same survey data, which Fearon (2003) actually suggests is the best source for constructing single-dimension indices. The indices exhibit strong similarities with existing single-dimension indices, which increases confidence in the cross-cuttingness indices presented here, as well as the literature's reliance on past indices of ethnic and religious diversity constructed from different sources. Future efforts should focus on filling in missing countries of these indices, as well as testing their robustness to future surveys.

As with single-dimension measures, there also appear to be regional patterns in the various cross-cuttingness indices I present here. These patterns may have implications for the current state of knowledge regarding phenomena such as economic growth and civil war. Does "Africa's Growth Tragedy" stem from ethnic fractionalization, ethno-regional cross-cuttingness, both additively, or either one

interactively with the other? The introduction of these indices offers fruitful areas of future scholarly work on these important questions.

The indices presented in this chapter represent just the beginning of two-dimensional measures of social structure. I have also tried in this chapter to distinguish among various two-dimensional characteristics of social structure. Cross-cuttingness is just one way two (or more) cleavages can be structured in relationship to each other, and may not be the most appropriate characteristic for the question under consideration. I urge researchers to think carefully about the use of measures of social structure in their work, and as a community of scholars continue to improve upon existing conceptualizations and measures.

Appendix: Table 2.9 Cross-cuttingness (C) Scores by Country

Country	Eth-Rel	Rel-Reg	Eth-Reg	Reg-Econ	Rel-Econ	Eth-Econ	Eth-Frag	Eth-Pol	Rel-Frag	Rel-Pol
Albania	0.885	0.741	0.897	0.817	0.884	0.922	0.022	0.453	0.044	0.738
Argentina	0.905	0.904		0.823	0.909	0.930	0.020	0.366	0.040	0.603
Armenia	0.588	0.915	0.918	0.882	0.930	0.918	0.064	0.269	0.127	0.507
Australia	0.670	0.894	0.914	0.904	0.905	0.914	0.204	0.654	0.364	0.818
Austria	0.606	0.875	0.892	0.892	0.908		0.067	0.355	0.125	0.573
Azerbaijan	0.628	0.807	0.767	0.702	0.878	0.885	0.250	0.157	0.429	0.298
Bangladesh	0.562	0.819	0.823	0.681	0.880	0.881	0.151	0.246	0.294	0.475
Belarus	0.753	0.724	0.722	0.867	0.888	0.908	0.384	0.549	0.626	0.902
Belgium	0.817	0.755	0.330	0.896	0.883		0.505	0.594	0.973	0.687
Belize	0.706						0.791	0.725	0.605	0.604
Benin	0.723	0.722	0.676				0.760	0.784	0.623	0.619
Bolivia	0.944	0.888	0.844	0.842	0.918	0.879	0.529	0.389	0.529	0.389
Bosnia	0.282	0.221	0.111	0.913	0.867	0.800	0.574	0.711	0.876	0.777
Botswana	0.802	0.879	0.743	0.839	0.871	0.887	0.367	0.780	0.579	0.656
Brazil	0.940	0.903	0.840	0.881	0.914	0.854	0.428	0.473	0.712	0.714
Bulgaria	0.510	0.814	0.739	0.866	0.886	0.847	0.296	0.597	0.516	0.692
Burma	0.382	0.912	0.883				0.108	0.054	0.458	0.354
Canada	0.586	0.748	0.865	0.887	0.849	0.928	0.615	0.711	0.274	0.752
Cape Verde	0.934	0.696	0.970	0.721	0.899	0.879	0.008	0.449	0.009	0.677
Chile	0.947	0.904	0.806	0.871	0.887	0.921	0.159	0.464	0.297	0.677
China	0.644				0.863	0.900	0.136	0.063	0.250	0.121
Colombia	0.937	0.743	0.435	0.538	0.898	0.857	0.586	0.337	0.586	0.337
Costa Rica	0.939	0.892	0.853	0.817	0.911	0.938	0.142	0.420	0.270	0.671
Croatia	0.728	0.884	0.899		0.901		0.041	0.202	0.082	0.354
Cyprus	0.712	0.933					0.027	0.031	0.054	0.062
Cyprus, North	0.991	0.858					0.070	0.008	0.124	
Cyprus, Unified	0.294						0.501	0.958	0.937	
Czech Republic	0.955	0.803	0.862	0.852	0.867	0.909	0.494	0.683	0.874	0.772
Czechoslovakia	0.818	0.813	0.692				0.553	0.647	0.874	0.776
Denmark	0.678	0.844	0.875	0.879	0.881		0.060	0.408	0.112	0.611
Dominican Republic	1.000	0.795	0.729	0.767	0.834	0.749	0.566	0.578	0.820	0.773
Ecuador	0.946	0.852	0.733	0.701	0.914	0.917	0.325	0.279	0.325	0.279
Egypt	0.958	0.860	0.415	0.812	0.948	0.861	0.635	0.106	0.867	0.213
El Salvador	0.952	0.851	0.894	0.795	0.907	0.922	0.521	0.639	0.521	0.639
Estonia	0.627	0.833	0.565	0.851	0.888	0.886	0.486	0.435	0.961	0.702
Fiji	0.541						0.545	0.519	0.895	0.840
Finland	0.649	0.859	0.857	0.888	0.902	0.925	0.076	0.321	0.151	0.548
France	0.642	0.823	0.862	0.900	0.895		0.000	0.499	0.227	0.684
Georgia	0.745	0.888	0.000	0.858	0.930	0.839	0.493	0.268	0.986	0.453
Germany, East	0.968						0.010	0.400	0.020	0.691
Germany, Unified	0.690						0.686	0.178	0.846	
Germany, West	0.686						0.040	0.650	0.083	0.882
Ghana	0.743	0.763	0.511	0.809	0.879	0.849	0.621	0.802	0.762	0.598
Great Britain	0.707	0.819	0.920	0.889	0.907	0.929	0.149	0.780	0.312	0.626
Greece	0.759	0.911	0.903		0.914		0.020	0.059	0.039	0.114
Guatemala	0.935	0.826	0.650	0.653	0.911	0.789	0.517	0.551	0.647	0.884

Country	Eth-Rel	Rel-Reg	Eth-Reg	Reg-Econ	Rel-Econ	Eth-Econ	Eth-Frag	Eth-Pol	Rel-Frag	Rel-Pol
Guyana	0.752	0.743	0.684	0.766	0.894	0.868	0.710	0.807	0.710	0.807
Honduras	0.952	0.831	0.640	0.695	0.898	0.877	0.571	0.551	0.839	0.870
Hong Kong	0.925	0.854	0.912	0.858	0.857	0.934	0.030	0.434	0.059	0.618
Hungary	0.851	0.829	0.926	0.871	0.879		0.006	0.631	0.637	0.592
India	0.678	0.520	0.264	0.741	0.846	0.807	0.835	0.445	0.479	0.642
Indonesia	0.731	0.833	0.449	0.803	0.902	0.839	0.707	0.131	0.807	0.258
Iran	0.958	0.893	0.376	0.851	0.922	0.878	0.570	0.053	0.840	0.103
Iraq	0.502	0.648	0.221	0.798	0.905	0.806	0.326	0.011	0.595	0.833
Ireland	0.293	0.870	0.909	0.831	0.868	0.917	0.003	0.097	0.007	0.184
Israel	0.054	0.200	0.000	0.695	0.847	0.736	0.220	0.260	0.440	0.464
Italy	0.902	0.875	0.915	0.866	0.902	0.932	0.001	0.146	0.003	0.286
Jamaica	0.932	0.779	0.840	0.754	0.888	0.894	0.201	0.592	0.201	0.592
Japan	0.909	0.887			0.864	0.888	0.888	0.020	0.465	0.039	0.814
Jordan	0.945	0.796	0.763	0.887	0.890	0.908	0.498	0.085	0.949	0.169
Kenya	0.707	0.660	0.231	0.833	0.890	0.856	0.890	0.784	0.379	0.644
Kyrgyzstan	0.361	0.762	0.548	0.822	0.852	0.837	0.586	0.417	0.817	0.663
Latvia	0.369	0.732	0.794	0.792	0.898	0.906	0.587	0.724	0.961	0.760
Lesotho	0.912	0.883	0.759	0.861	0.855	0.900	0.015	0.707	0.030	0.764
Lithuania	0.330	0.841	0.644	0.881	0.899	0.903	0.170	0.345	0.339	0.589
Luxembourg	0.633	0.833	0.823	0.860	0.866		0.417	0.344	0.602	0.542
Macedonia	0.563	0.764	0.713	0.832	0.913	0.848	0.424	0.560	0.742	0.834
Madagascar	0.810	0.747	0.369				0.868	0.756	0.416	0.661
Malawi	0.712	0.724	0.246	0.690	0.851	0.837	0.680	0.797	0.673	0.618
Malaysia	0.219						0.558	0.577	0.904	0.867
Mali	0.858	0.919	0.440	0.805	0.918	0.809	0.818	0.099	0.509	0.189
Malta	0.200	0.925		0.853	0.877		0.051	0.525	0.103	0.130
Mexico	0.881	0.903	0.785	0.792	0.912	0.809	0.646	0.427	0.869	0.717
Moldova	0.805	0.909	0.654	0.878	0.886	0.915	0.375	0.113	0.613	0.213
Mongolia	0.907	0.789	0.816	0.784	0.924	0.882	0.050	0.494	0.166	0.721
Montenegro	0.608	0.671	0.813	0.689	0.867	0.899	0.166	0.462	0.324	0.746
Morocco	0.623	0.946	0.807	0.757		0.905	0.251	0.002	0.482	0.004
Mozambique	0.697	0.741	0.405	0.765	0.895	0.814	0.863	0.804	0.434	0.592
Namibia	0.700	0.764	0.482	0.843	0.875	0.829	0.709	0.636	0.672	0.807
Netherlands	0.804	0.764	0.906	0.880	0.875	0.885	0.047	0.710	0.091	0.777
New Zealand	0.664	0.854	0.860	0.904	0.857	0.877	0.428	0.843	0.171	0.504
Nicaragua	0.916	0.554	0.667	0.711	0.897	0.928	0.587	0.539	0.773	0.814
Nigeria	0.701	0.708	0.461	0.802	0.886	0.850	0.814	0.449	0.587	0.867
Pakistan	0.875	0.843	0.314	0.733	0.874	0.850	0.527	0.615	0.673	0.829
Panama	0.846	0.817	0.637	0.738	0.923	0.804	0.564	0.414	0.202	0.690
Peru	0.945	0.902	0.845	0.853	0.910	0.851	0.641	0.293	0.032	0.488
Philippines	0.667	0.724	0.316	0.813	0.871	0.834	0.764	0.467	0.654	0.637
Poland	0.685	0.882	0.903	0.861	0.903		0.020	0.106	0.012	0.012
Portugal	0.987	0.932	0.933	0.894	0.941	0.923	0.014	0.052	0.027	0.103
Romania	0.627	0.860	0.785	0.898	0.900	0.926	0.139	0.161	0.271	0.302
Russia	0.701	0.805	0.857	0.797	0.853	0.918	0.299	0.538	0.274	0.188
Saudi Arabia	0.628	0.897	0.889	0.845	0.921	0.835	0.515	0.055	0.304	0.107
Senegal	0.814	0.842	0.543	0.823	0.912	0.850	0.720	0.121	0.464	0.726

Country	Eth-Rel	Rel-Reg	Eth-Reg	Reg-Econ	Rel-Econ	Eth-Econ	Eth-Frag	Eth-Pol	Rel-Frag	Rel-Pol
Serbia (& Montenegro)	0.475	1.000	0.724	0.874	0.899	0.912	0.156	0.344	0.287	0.545
Singapore	0.479	1.000	1.000	1.000	0.844	0.838	0.678	0.799	0.689	0.596
Slovakia	0.754	0.820	0.814	0.837	0.881	0.889	0.134	0.437	0.257	0.674
Slovenia	0.641	0.853		0.859	0.870		0.056	0.426	0.113	0.750
South Africa	0.548	0.812	0.538	0.843	0.848	0.538	0.684	0.953	0.806	0.616
South Korea	1.000	0.860	1.000	0.838	0.909	1.000	0.000	0.758	0.000	0.758
Spain	0.838	0.886	0.487	0.745	0.906	0.737	0.289	0.301	0.500	0.567
Sri Lanka	0.316	0.847	0.848				0.221	0.390	0.300	0.817
Sweden	0.546	0.900		0.886	0.906	0.907	0.047	0.269	0.092	0.462
Switzerland	0.706	0.676	0.000	0.839	0.891	0.870	0.611	0.517	0.888	0.949
Taiwan	0.716	0.842	0.731	0.842	0.908	0.870	0.421	0.572	0.972	0.807
Tanzania	0.861				0.889	0.902	0.274	0.716	0.535	0.752
Thailand	0.502	0.777	0.266	0.726	0.931	0.735	0.704	0.106	0.454	0.764
Tunisia	0.293	0.955	0.970				0.026	0.019	0.051	0.038
Turkey	0.847				0.910	0.935	0.026	0.080	0.051	0.156
Uganda	0.860	0.847	0.348	0.796	0.890	0.865	0.811	0.652	0.571	0.858
Ukraine	0.668	0.688	0.315	0.841	0.914	0.829	0.490	0.533	0.980	0.890
United States	0.725	0.842	0.833	0.898	0.883	0.881	0.437	0.776	0.689	0.683
Uruguay	0.908	0.861	0.824	0.859	0.881	0.874	0.087	0.592	0.167	0.903
Venezuela	0.907	0.837	0.761	0.789	0.928	0.886	0.660	0.488	0.846	0.823
Vietnam	0.768	0.723	0.822	0.827	0.837	0.879	0.078	0.665	0.212	0.813
Zambia	0.661	0.789	0.415	0.788	0.905	0.821	0.844	0.720	0.726	0.234
Zimbabwe	0.911	0.808	0.852	0.832	0.875	0.839	0.372	0.805	0.055	0.614

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Chapter 3: Testing the Theory

3.1 Introduction

In chapter 1, I developed a socio-institutional theory explaining why individual politicians choose to join together in national parties that cater to broad segments of the population. I stressed that this coordination relied on the underlying social structure of a country *in combination with* its electoral rules. Specifically, I identified three features of social structure that affect the possibility of forming broad alliances. In addition to *ethnic fractionalization*, or the number and relative size of ethnic groups, I focused on the geographic dispersion of ethnic groups, which I referred to as *ethno-geographic cross-cuttingness*, and the equality of income among ethnic groups, which I label *ethno-income cross-cuttingness*. I dedicated the preceding chapter to carefully defining and measuring the concept of cross-cuttingness, and describing the data I used to construct cross-country indices along several identity dimensions (cleavages).   In this chapter, I test several hypotheses that emerge from the theory using a dataset of 46 developing democracies. The findings of the quantitative analysis in this chapter confirm that *effective* constituency breadth, i.e. an interactive institutional and sociological conceptualization, is positively related to three of four health and education outcomes, my proxies for public goods provision. Specifically, I find that the marginal effect of *Average Representation Proportion (ARP)* on life expectancy, a battery of other health outcomes, and health and social security spending is positive when ethnic fractionalization is low, but negative when ethnic fractionalization is high. Further, these effects diminish as ethno-income cross-cuttingness (EIC) increases.

This chapter begins with a discussion of the operationalization of the dependent variable—resource allocation breadth. I discuss empirical strategies for measuring public goods provision, or resource allocation breadth, in the absence of precise measures, and offer justification for the use of health outcomes, namely life expectancy, infant mortality and immunization rates, as well as spending measures for health and social security, as reasonable proxies for allocation breadth. Following, I briefly recap the theory and delineate the exact hypotheses to be tested in this chapter. I then describe the estimation strategy for addressing multiplicative hypotheses and discuss the expected results in the form of marginal effects plots, which have become the norm for displaying results from interactive models. I also briefly discuss issues related to estimating a model with time-invariant or slow-moving variables, which characterize the primary explanatory variables, both institutions and social structure. Next, I discuss the operationalization and measurement of the institutional variables and the various control variables. Finally, I present the results of the various tests, concluding with a discussion on future avenues for better testing the theory.

3.2 The Dependent Variable: Allocation Breadth

Two Approaches to Measuring Allocation Breadth

Measuring allocation breadth is a notoriously hard empirical problem. Unfortunately, governments do not readily categorize their budgets on a scale of 0-1 based on the breadth of the population benefiting from programs and projects, nor would it be easy to dissect a country's central budget so as to compile such a nice statistic.[47] There are two common approaches to this dilemma. One approach is to select budget categories with a presumed broad content, taking the amount of spending for that category as a % of GDP (or of total government expenditures) as the dependent variable. Cox and McCubbins indirectly challenge this approach, arguing that governments can "morselize" even so-called "broad" budget categories, allocating them to narrow

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[47] Indeed, there has been only one attempt, to the author's knowledge, thus far, by Levitt and Snyder (1995) who measure allocation breadth in the United States by categorizing the Federal Domestic Assistance Program into average annual outlay per district, and categorizing programs into ones that are narrowly targeted and broadly targeted by dividing the standard deviation by the mean. See their footnote 10 for more information.

constituencies at will. [48]   Thus, even if we find an empirical relationship between constituency breadth and spending, it is not clear what this tells us. The only category for which this might be a good proxy is social security spending, since it involves direct transfers of money (pensions and unemployment insurance) rather than programs and projects, which are much easier to target towards narrow geographic constituencies. In the robustness section, I present results using both social security and health spending. Both provide qualitatively similar results to my main dependent variables (health outcomes) though the result on health spending is not as strongly theoretically justified, despite being used as a proxy for public goods in some past studies (e.g. Kuijs 2000).

A second approach is to use actual outcomes, such as life expectancy or infant mortality, as the dependent variables. Using such outcomes captures something about the quality of public policies and how broadly they are able to affect the entire population. Nevertheless, this approach means that, since I do not explicitly include policy or spending in the model, I can only *assume* spending policy is the intervening mechanism. Hicken and Simmons (2008) argue that the effect of electoral rules on the provision of education operates through spending efficiency, presenting convincing empirical results to support this assertion. Specifically, they posit that when constituencies are narrow, politicians will spend education resources more inefficiently (their example is the over-supply of textbooks in the Philippines). Since this mechanism is not crucial to the test of my theory, however, I opt to leave it for future work. What we can ascertain, however, is that more of the population is benefited by spending in broad-constituency democracies. Indeed, since the outcomes I use are expressed as ratios, every single member of society matters in the final score a country receives. Consistent neglect of a particular region or ethnic group, for example, will mean that rates will not be able to surpass a certain level. Additionally, general inefficiency caused by rent extraction or pork can lead to lower health quality for the entire nation. In the qualitative chapters, I try and shed light on this important mechanism of spending efficiency. Findings from extensive fieldwork undertaken in Thailand and Mauritius support Cox and McCubbins' conjecture that we

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[48] Morselize entails taking a broad policy and making "the means of producing and distributing these goods . . . politically determined, [which] may not be the least costly means of providing these goods to the society" (Cox and McCubbins 2001, p.47-48). For example, a policy of free medications could be broken up into contracts for the actual drugs, packaging, distribution, etc. granted to individuals within one's electoral district.

cannot simply assume a given budget category has (or not) high broad-public-goods content. Thus, success in the health outcomes I use in this chapter (and that organizations such as the UN and WHO use to assess a country's achievements in these areas) entails effective spending and equal and efficient distribution of funds across "broad swaths of the population" (Shugart 1999).

Data for Health Outcomes

I use four health outcomes as proxies for my dependent variable: life expectancy, infant mortality, and immunization rates for measles and diphtheria. For robustness, I also estimated the model using the United Nations Human Development Program *(UNHDP)* health index, but do not report the results since the index is derived solely from life expectancy rates, yielding an almost identical marginal plot in Figure 3.3a. My measure of life expectancy (*lex*) is taken from the United Nations Development Program (UNDP) Time Series Dataset (1970-2000).[49] It is calculated as the number of years an infant is expected to live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life. Infant mortality (*InfMort*) is taken from the World Bank Development Indicators (WBDI) and calculated as the number of infants who die before reaching one year of age, per 1,000 live births in a given year.[50] Since higher values would imply worse health outcomes, I normalize *InfMort* by dividing by the maximum value in the sample and subtracting it from 1. Measles (*ImmMeas*) and diphtheria (*ImmDiph*) immunization rates (as a percent of children aged 12 months and under) are also taken from the WBDI, as is one measure of health spending, as a percentage of GDP, (*HlthSpWB*).[51] A second measure of health spending (*HlthSpPrz*) and my measure for spending on social security and welfare (*Transfers*) by the central government as a share of GDP are taken from Przeworski et al. (2000).

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[49] The Dataset was obtained by request in writing to hdro@undp.org. I thank the Statistics branch of the UNDP for their generous sharing of data.
[50] Data available at http://www.worldbank.org in the "Data & Statistics" section.
[51] For robustness I run the results using logged values and the percent change from the prior year as the dependent variable.

Measuring Electoral Rules: Average Representation Proportion

I have thus far been loosely referring to the institutional variable as two ends of the electoral-system breadth spectrum – large PR districts vs. small majoritarian districts. Since electoral-system breadth refers to the proportion of the population to which electoral rules ostensibly make individual politicians accountable, I try to measure that concept more precisely with what I refer to as the Average Representation Proportion, or ARP. ARP is calculated as the average district magnitude (M) divided by the number of legislative seats (L). ARP, thus, differentiates between countries with identical district magnitude, but a different number of districts, and thus total number of legislators. The idea is that a politician who is one of fifty legislators is more likely to be seen (and see him/herself) as representing the entire nation than a politician who is one of three hundred legislators. Moreover, given that M is the *average* district magnitude and is calculated as the number of legislative seats (L) divided by the number of districts (D), ARP is essentially 1/D. ARP thus captures the constituency breadth as the average district's proportion of representation in the legislature.

ARP ranges from 0 to 1, where 1 represents a politician ostensibly elected by the entire population such as in the Netherlands. The minimum is never reached in practice, and is lowest in the UK where district magnitude is 1 and there are over 600 legislators.[52] One of its primary advantages of ARP is that it already incorporates much of the information contained in district magnitude (M). As discussed previously, we know that the effect of M is very much contingent on the type of electoral system (i.e. majoritarian vs. PR). As the institutional variable is already part of a three-way interaction in the model above, adding another contingent variable to accurately reflect the impact of M would entail a daunting four-way interaction.

3.3 Hypotheses

My socio-institutional theory of public goods provision stems from two separate literatures, which I united with the concept of party nationalization. I have argued that to assess the true effect of either political institutions or social structure without taking the

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[52] Data are from Golder (2005). I thank him for his generous sharing of data, which are available on his website at: http://homepages.nyu.edu/~mrg217/elections.html.

other variable into consideration produces misleading conclusions. One such faulty conclusion that pervades the literature is that majoritarianism necessarily leads to narrow resource allocation. Conditional on certain levels of various dimensions of ethnic diversity, majoritarianism does retard public goods provision. However, under other social structural conditions, small, majoritarian districts are superior to large, PR districts. My theory thus leads to the following testable hypotheses:

> **Majoritarianism Hypothesis:** Majoritarianism leads to broader resource allocation when ethnic fractionalization is high and ethnic groups are moderately-highly geographically dispersed.

> **PR Hypothesis:** PR leads to broader resource allocation when ethnic fractionalization is low regardless of ethno-geographic cross-cuttingness.

Since I am not using a dichotomous measure of electoral-system breadth, it is more precise to combine these two hypotheses as follows:

> **ARP Hypothesis:** When ethnic fractionalization is high, given that ethnic groups are moderately-highly geographically dispersed, the marginal effect of ARP on allocation breadth is negative. In contrast, when ethnic fractionalization is low regardless of ethno-geographic cross-cuttingness, the marginal effect of ARP is positive.

There are certain conditions, however, under which electoral rules have no effect on allocation breadth. Specifically, low ethno-geographic cross-cuttingness and high ethno-income cross-cuttingness both cause institutions to be mute.

> **Ethno-Geographic Concentration Hypothesis:** When multiple ethnic groups are concentrated in their own regions (low EGC), electoral rules have no effect on allocation breadth.

> **Social Salience of Ethnicity Hypothesis:** When ethnicity is not socially salient, i.e. when ethno-income cross-cuttingness is high, electoral rules have no effect on allocation breadth.

In addition to assessing the effect of institutions, which these first four hypotheses do, I also examine the effect of ethnic fractionalization in developing democracies. Existing literature has summarily concluded that having more ethnic groups in society is harmful to public goods provision. Ignoring other features of social structure as well as the electoral rules leads to a misleading conclusion. In this regard also, my theory predicts that higher ethnic fractionalization leads to narrower resource allocation only when ethnicity is sufficiently salient and only under certain electoral rules. Thus, I test the following hypotheses:

Good Fractionalization Hypothesis: Given a moderate-high level of ethno-geographic cross-cuttingness, the marginal effect of ethnic fractionalization on allocation breadth is positive only when ethno-income cross-cuttingness is sufficiently high and/or ARP is sufficiently low. Higher levels of ARP will require higher levels of EIC for ethnic fractionalization to have a positive effect. Likewise, lower levels of ARP are more "tolerant" to lower levels of EIC.

Bad Fractionalization Hypothesis: Given a moderate-high level of ethno-geographic cross-cuttingness, the marginal effect of ethnic fractionalization on allocation breadth is negative only when ethno-income cross-cuttingness is sufficiently low and ARP is sufficiently high. Lower levels of ARP will require lower levels of EIC for ethnic fractionalization to have a negative effect. Likewise, high levels of ARP will have a negative effect regardless of the level of EIC.

To repeat the logic of my theory: high ARP, characterized by large PR districts, provides no incentives for cross-ethnic voting. Indeed, it encourages the electorate to vote along ethnic lines.

Predicted Results

Since I will be plotting the marginal effect of my institutional and social structure variables as the primary means of evaluating my hypotheses, it is helpful to provide a visual illustration of the hypotheses, or predicted results, in the same form. Moreover, a single marginal effects plot will contain information regarding a number of the above hypotheses, so I present the predicted results in a more systematic fashion. Hypotheses 1

& 2 below, then, refer each to different levels of ethno-geographic cross-cuttingness: low and medium-high, respectively.

Hypothesis 1: EGC=Low
a. The marginal effect of ARP is zero, when EF is high.
b. The marginal effect of ARP is positive when EF is low, and diminishes as EIC increases.

To re-cap the logic of my theory: where ethnic groups are highly concentrated in their own regions, electoral rules are irrelevant in terms of affecting the certainty of the largest group's victory in a highly fractionalized society. PR rules will directly translate group sizes into the legislature. However, small majoritarian districts will lead to the same direct translation of group sizes into the legislature because each district is composed of a single ethnic group.[53] Thus, there are no incentives for cross-ethnic voting. The story for low fractionalization is identical regardless of the level of EGC. When one ethnic group is very large, ethnicity is not electorally salient since that group is certain of victory. Non-ethnic forces, then, serve as the basis of political competition, including narrow, district demands induced by a low ARP. Thus, where ethnic fractionalization is low, increasing PR will lead to broader resource allocation.

Figure 3.1 shows the predicted results for Hypotheses 1a-1b, plotting the marginal effect of ARP on allocation breadth across levels of ethno-income cross-cuttingness (the horizontal axis) and ethnic fractionalization (three different plots). The solid lines plot the marginal effect of ARP at each level of ethnic fractionalization (high, moderate and low); the dashed lines either side are confidence intervals—purely contrived for illustrational purposes.

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[53] Even if there are a few mixed districts along regional borders, these will have an insignificant effect on the overall outcome.
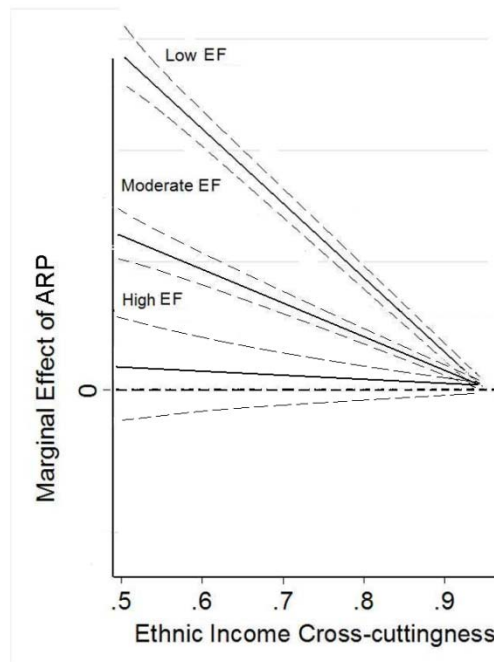
Figure 3.1 Depiction of Hypotheses 1a-b:
The Marginal Effect of ARP on Allocation Breadth when EGC=low

Figure 3.1 depicts the marginal effect of ARP when EGC is low. Notice how the confidence intervals around the line "High EF" are either side of the zero line. This indicates that the marginal effect is indistinguishable from zero, in accordance with Hypothesis 1a. As EF decreases, however, indicated by the two remaining lines at moderate and low levels of ethnic fractionalization, the marginal effect is positive (above the zero line). The downward slope indicates that the effect diminishes as EIC increases, which is the second part of hypothesis 1b.

Hypotheses 2 & 3: EGC=Medium and High

a. Higher ARP leads to broader resource allocation—a positive marginal effect, but only where ethnic fractionalization (EF) is low.[54]

b. Higher ARP leads to narrower resource allocation—a negative marginal effect, where EF is moderate-high.

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[54] Note, that when EIC is low, there are no observations in my sample in the low fractionalization range. This corresponds to Lijphart's claims that these types of societies are rare (See *The Architecture of Democracy,* p.21 footnote 5).

c. Increasing EIC diminishes both the positive marginal effect of ARP where EF is low and the negative marginal effect of ARP where EF is moderate-to-high.
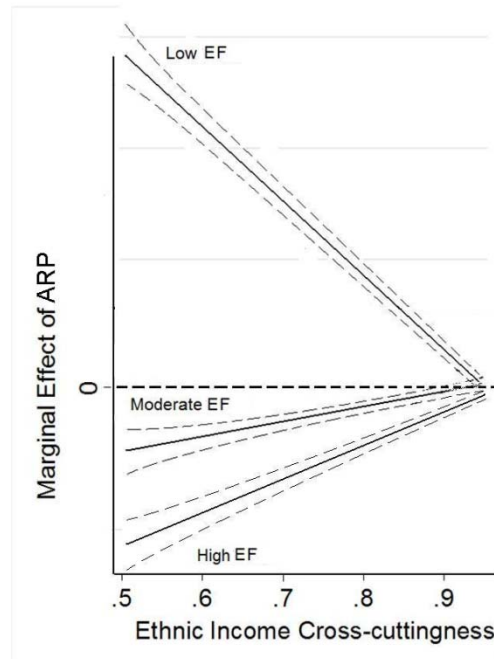
Figure 3.2 Depiction of Hypotheses 2a-c:
The Marginal Effect of ARP on Allocation Breadth when EGC=medium-high

Hypothesis 2b is illustrated by the two lines that lie beneath the zero line, indicating a negative marginal effect when EF. High EF is located beneath moderate EF, signifying that the negative marginal effect is larger as EF increases. Second, the line located above the zero line, implying a positive marginal effect, depicts Hypothesis 2a: when EF is low, increasing ARP will lead to effectively broader constituencies and, thus broader resource allocation. Lastly, note how all three lines, which represent different levels of ethnic fractionalization, all tend toward zero as ethno-income cross-cuttingness increases. This is in accordance with Hypothesis 2c.

Although they have identical outcomes, the theoretical story differs between medium and high levels of ethno-geographic cross-cuttingness. Where ethnic fractionalization is medium, the geographic dispersion of ethnic groups makes it increasingly uncertain whether the largest ethnic group will constitute the largest group in

the legislature. In many of the districts, candidates will have to rely on the votes of other ethnic groups in order to secure a majority. Even if the largest ethnic group constituted a plurality in each district, as long as it was not the majority in a large proportion of districts, there will be sufficient incentives to construct multi-ethnic coalitions at both the district and national level where ARP is low. Where ARP is high, however, ethnic groups have no incentive to seek out the votes of other ethnic groups. And while a multi-ethnic coalition may be necessary under high ARP, each party is still only relying on the votes of its own ethnic group. Low ARP will lead to effectively broader constituencies in either situation.

Finally, where ethnic groups are evenly dispersed throughout the country (High EGC), the socio-institutional dynamics are again different. Low ARP results in the largest ethnic group potentially winning elections in every district. However, when fractionalization is high, minority ethnic groups would be severely underrepresented and the government would be accountable to a small proportion of society. As Horowitz (1985) argues, however, in such a circumstance, the minority ethnic groups will join together against the largest ethnic group. Facing the prospect of losing to this multi-ethnic coalition will, in turn, encourage the largest ethnic group to also cater to other groups. Thus, a low ARP encourages the broadest coalitions where EF is high. As before, where fractionalization is low, ARP will lead to broader resource allocation regardless of the level of EGC.

Table 1 summarizes the three sets of hypotheses and generates similar predictions to Figure 1.4d. Note that when EIC is high, I expect ARP to have a negative effect in all scenarios, except where ethnic fractionalization is high ethnic groups are concentrated in their own regions. This outcome is exactly what current institutional theory predicts, exactly because, I argue, scholars have been motivated by societies where ethnicity is not salient, either socially or electorally. Nevertheless, in all of the previously-discussed scenarios where ARP has a positive effect, the magnitude of the effect diminishes as EIC increases, since high ethno-income cross-cuttingness indicates an ex-ante set of social preferences for broad allocation resource. High ethno-income cross-cuttingness will also reduce the magnitude of the marginal effect of ARP in the previously-discussed scenarios where the effect was negative, for the same logic of ex-ante preferences for broad

allocation resources. In addition, at a certain (high) level of ethno-income cross-cuttingness, the direction of the effect should change to positive. However, this is the area of theory that is the most difficult to test given the linear restriction of my empirical specification. Accordingly, given the complexity of the current theory and model, I reserve this for future work.

| | Low EGC | | Medium EGC | | High EGC | |
	High EF	Low EF	High EF	Low EF	High EF	Low EF
Low EIC	*No effect*	*Positive (+)* Higher ARP leads to broader constituencies	*Negative (-)* Higher ARP leads to narrower constituencies	*Positive (+)* Higher ARP leads to broader constituencies	*Negative (-)* Higher ARP *may* lead to narrower constituencies	*Positive (+)* Higher ARP leads to broader constituencies
High EIC	*No effect*	*Positive (+)* Higher ARP leads to broader constituencies	*Positive (+)* Higher ARP leads to broader constituencies	*Positive (+)* Higher ARP leads to broader constituencies	*Positive (+)* Higher ARP leads to broader constituencies	*Negative (-)* Higher ARP leads to narrower constituencies

Table 3.1 Marginal effect of ARP on constituency (and allocation) breadth

3.4 Empirical Model

Model Specification

The hypotheses introduced above imply that the effect of political institutions on allocation breadth is modified by the social structure of the society within which it operates. Alternatively, I have structured this dynamic in terms of social preferences being filtered through institutions. The implication is identical in terms of our empirical

model: social structure and institutions should be entered multiplicatively. Thus, at the broadest level we get:

$AllocationBreadth = a + \beta_1 Institutions + \beta_2 SocialStructure +$

$\beta_3 Institutions \times SocialStructure + \sum \beta_i \mathbf{X_i} + \varepsilon.$ (5.1)

However, having defined social structure more richly, I begin by adding two interactive characteristics—*ethno-income cross-cuttingness (EIC)* and *ethnic fractionalization (ELF).*—I adjust this model to:

$AllocationBreadth = a + b_1 Institutions + b_2 ELF + b_3 EIC + b_4 Institutions \times ELF \quad +$

$b_5 Institutions \times EIC + b_6 ELF \times EIC + b_7 Institutions \times ELF \times EIC + \sum \beta_i \mathbf{X_i} + \varepsilon.$ (5.2)

where $\mathbf{X_i}$ is a vector of control variables discussed below in section 3.5. I do not incorporate *ethno-geographic cross-cuttingness* into *SocialStructure* in this model. Instead, due to data scarcity, I segment the dataset into medium-high, and low values of EGC. In terms of *Institutions*, my primary focus is on ARP—the Average Representation Proportion (introduced above)—since I believe it provides the cleanest operationalization of the concept of constituency breadth.

To calculate the full influence of *Institutions* and *SocialStructure* in multiplicative models, we must calculate the marginal effect of each variable. To do this, we take the partial derivatives. Thus, for *Institutions*, the marginal effect is:

$$\frac{\partial AllocationBreadth}{\partial Institutions} = \beta_1 + \beta_4 ELF + \beta_5 EIC + \beta_7 ELF \cdot EIC$$ (5.3)

We can similarly calculate the marginal effects for ELF and EIC.

$$\frac{\partial AllocationBreadth}{\partial ELF} = \beta_1 + \beta_4 Institutions + \beta_5 EIC + \beta_7 Institutions \cdot EIC$$ (5.4)

$$\frac{\partial AllocationBreadth}{\partial EIC} = \beta_1 + \beta_4 Institutions + \beta_5 ELF + \beta_7 Institutions \cdot ELF \qquad (5.5)$$

As stated in the previous section, I plot the marginal effect of *Institutions* along values of the social structure variables.

Estimation Strategy

I estimate the above model using a random effects estimator given the Time-Series Cross-Sectional (TSCS) nature of my data. I am unable to estimate a fixed-effects model due to the time-invariant nature of the social-structure variables. As a result, I am unable to control for country effects, and the random effects estimator is biased and inconsistent, although the degree of this bias and inconsistency is unknown (Plümper and Troeger 2007). I am also unable to use a recently-developed estimator[55] due to it producing unbelievably low standard errors (one z-score was over 5000) when, it appears, the proportion of cross-sectional variance is high, as is the nature of all the models I estimate.[56]

3.5 The Dataset

Control Variables

Formulas 5.1 and 5.2 contain a vector of control variables, $\mathbf{X_i}$ that I now discuss. I follow Achen's (2002) advice to minimize the number of independent variables. With such complicated interactive terms consuming degrees of freedom, I thus opt to include just three in addition to my independent variables of focus: wealth, population size, and

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[55] The estimators was developed by Plümper and Troeger (2007), and present a three-stage procedure for the estimation of time-invariant and rarely changing variables in panel data models with unit effects, which they call 'fixed effects vector decomposition' (FEVD) "because the estimator decomposes the unit FE into an unexplained part and a part explained by the time-invariant or the rarely changing variables. The first stage of their proposed estimator estimates a fixed-effects model to obtain the unit effects; the second stage breaks the unit effects into a part explained by the time-invariant and/or rarely changing variables and an error term; and the third stage re-estimates the first stage by pooled OLS with panel-corrected standard errors including the time-invariant variables plus the error term of stage 2, which then accounts for the unexplained part of the unit effects.

[56] I am indebted to Rob Franzese for a discussion on this issue.

democratization. If our goal was to maximize R^2, we might include a number of other variables found in the literature such as region, former British colony, size of rural population, size of country (land area), etc.

First, I control for the wealth of countries. The assumption is that the richer the country, the more resources the state has to redistribute, and thus, *ceteris paribus*, health and education outcomes will be higher (Barlow and Vissandjee 1999; Crenshaw and Ameen 1993; Dollar and Kraay 2000; Filmer and Pritchett 1999; Firebaugh and Beck 1994; Kim and Moody 1992; Moon 1991; Pritchett and Summers 1996; Shen and Williamson 1997; Wennemo 1993). In addition to absolute increases in resources, Wagner's law states that the development of an industrial economy will be accompanied by an increased share of public expenditure in the gross national product. Furthermore, as a country's income increases so do the personal incomes of its citizens. Individuals will be better able to purchase more of and in superior quality, such things as food and water—essentials that significantly influence health outcomes such as life expectancy and infant mortality. In addition, with higher personal incomes, medical emergencies do not take as much toll on family savings. In terms of education, higher family incomes mean that children are more likely to finish more school as parents have excess wealth to be able to invest in their children's future (Feachem et al. 1992, Hobcraft et al. 1984, Kawachi et al 1999, Liu et al. 1992, Russett 1978, Tulasidhar and Sarma 1993, United Nations 1991). Lastly, GDP per capita may affect health and education outcomes via changes in labor force composition (Crenshaw and Ameen 1993; Moon 1991), or urbanization (Murthi et al. 1995; Rogers and Wofford 1989; Subbarao and Raney 1995; United Nations 1991). To measure country wealth, I use the UNDP's gross domestic product equalized for purchasing power parity from their Time-Series dataset. So that my results are not driven by extreme values, I take the logged value of both country wealth lagged by one year since I expect policy and spending decisions require time to take effect.

Second, I control for the size of population. My initial assumption was that the larger the population, the harder it is to achieve health and education outcomes. However, it might be that large populations benefit from economies of scale, in terms of purchasing of equipment, use of buildings, etc. Economies of scale do not extend to every feature of

health or education systems; certain costs are irreducible. For example, a teacher can only efficiently teach a limited number of students; a hospital can only cater to a certain size of population. My final results do not depend on this variable, but it so often used in the literature that I include it to enhance comparability. As my measure, I use the WBDI's Annual Total Population, logged and lagged for the same reason given for country wealth above.

Lastly, I include level of democracy. Since one of my key explanatory variables is a feature of democratic systems, it is possible that the effects of democratic institutions (ARP) depend on how much respect the leaders show for them.[57] As with population size, my results do not change when this control variable is omitted. All controls are lagged by one year. For level of democracy, I rely on the Polity IV dataset, which assigns countries an annual score ranging from -10 (most autocratic) to +10 (most democratic).[58]

Data Sample

The sample consists of 46 developing democracies, although all of them do not appear in every regression.[59]. I define as a developing country, low- and middle-income countries that had a per-capita GDP (by purchasing power parity) of US$13,500 or less in the year 2000.[60] My set of country-year observations are restricted to democracies, defined as having a score greater than zero according to the Polity IV dataset. In total, there are 46 countries in the sample. Table 3.2 lists the countries with the mean values of the main independent and dependent variables.

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[57] While democracy might also be interacted, since the model already includes three interactive variables, I opt to vary cut-off values of my proxy for democracy (Polity IV). The results do not change significantly for various cut-off points.

[58] My results are robust to the use of the Freedom House measure of democratic freedoms.

[59] For robustness, I estimate my model excluding outliers. For life expectancy, the outliers are Lesotho, Botswana, Bangladesh and Haiti. For literacy, the outliers are Niger, Mali, Bangladesh, Haiti, Thailand and Dominican Republic. For infant mortality, the outliers are Niger, Bangladesh and Turkey. The results do not change significantly. I also exclude South Africa, which has a significantly lower EIC score than any other country. For life expectancy, excluding South Africa produces more realistic results, otherwise in all other models the changes are substantively insignificant.

[60] I experiment with different cut-off points, such as $15,000 and $12,000. The results do not significantly change.

	EGC	EIC	EF	ARP	lex	infmort
Albania	0.90	0.92	0.02	0.01	70.93	37.31
Argentina		0.93	0.02	0.03	70.69	30.43
Armenia	0.92	0.92	0.06	0.01	70.13	15.85
Bangladesh	0.82	0.88	0.15	0.00	53.66	104.70
Bolivia	0.84	0.88	0.53	0.09	55.99	102.43
Brazil	0.84	0.85	0.43	0.04	64.81	59.24
Bulgaria	0.74	0.85	0.30	0.03	71.21	18.69
Chile	0.81	0.92	0.16	0.03	71.38	24.38
Colombia	0.43	0.86	0.59	0.04	67.08	39.38
Costa Rica	0.85	0.94	0.14	0.14	73.82	23.51
Dominican Republic	0.73	0.75	0.57	0.03	63.94	65.31
Ecuador	0.73	0.92	0.33	0.04	66.58	61.17
El Salvador	0.89	0.92	0.52	0.06	62.89	66.70
Estonia	0.56	0.89	0.49	0.09	70.05	12.62
Ghana	0.51	0.85	0.62	0.01	54.30	82.24
Guatemala	0.65	0.79	0.52	0.04	60.08	67.97
Guyana	0.68	0.87	0.71	1.00	60.72	66.80
Haiti	0.89	0.89	0.07	0.01	49.87	104.59
Honduras	0.64	0.88	0.57	0.06	62.14	63.19
India	0.26	0.81	0.83	0.00	56.82	95.29
Indonesia	0.45	0.84	0.71	0.04	58.62	77.67
Jamaica	0.84	0.89	0.20	0.02	70.82	31.11
Latvia	0.79	0.91	0.59	0.20	69.73	15.91
Lithuania	0.64	0.90	0.17	0.01	71.02	12.37
Macedonia, TFYR	0.71	0.85	0.42	0.01	72.68	21.34
Malawi	0.25	0.84	0.68	0.01	43.45	155.92
Mali	0.44	0.81	0.82	0.02	43.76	157.74
Mexico	0.79	0.81	0.65	0.00	69.04	46.51
Moldova, Rep. of	0.65	0.91	0.38	1.00	66.99	19.87
Mongolia	0.82	0.88	0.05	0.02	58.95	79.35
Namibia	0.48	0.83	0.71	1.00	56.65	63.30
Nicaragua	0.67	0.93	0.59	0.08	62.24	68.88
Nigeria	0.46	0.85	0.81	0.00	44.80	99.13
Pakistan	0.31	0.85	0.53	0.00	57.73	118.45
Panama	0.64	0.80	0.56	0.03	70.97	30.51
Peru	0.84	0.85	0.64	0.04	62.99	70.95
Philippines	0.32	0.83	0.76	0.00	64.03	46.91
Romania	0.79	0.93	0.14	0.02	69.65	28.43

Russian Federation	0.86	0.92	0.30	0.00	68.03	18.90
Slovakia	0.81	0.89	0.13	0.57	73.14	9.83
South Africa	0.54	0.54	0.68	0.06	56.98	64.09
Turkey		0.93	0.03	0.01	63.12	76.09
Ukraine	0.31	0.83	0.49	0.00	66.69	14.21
Uruguay	0.82	0.87	0.09	1.00	71.78	27.72
Venezuela	0.76	0.89	0.66	0.03	69.61	31.16
Zambia	0.42	0.82	0.84	0.01	46.19	103.96

Table 3.2 List of Developing Countries in Time-Series Database and Mean Statistics*
*Not all countries have observations for the entire 30 years. Either they were not democracies for the missing years, or data is missing for the dependent variables.

3.6 Results

Test of Hypotheses 2a-3c: EGC=medium-high

Using health and education outcomes as proxies for allocation breadth provides us with strong support for Hypotheses 2 – at medium-high levels of EGC. I use the 25% percentile, or EGC=.482, as the cut-off point, including all countries that are at or above this value. Table 3.3 displays the regression results for the two main health outcomes (Infant Mortality, Life Expectancy) and the two spending variables (Social Security and Health spending) with *ARP* as the proxy institutional variable. I start with the general proposition that each of the main independent variables (EIC, SELF and ARP) affect our health and education outcomes. Thus, for EIC, I perform a joint F-test on the coefficients of all terms that include EIC. The null hypothesis, that the model excluding all EIC terms is correctly specified is rejected at the 99% level. In fact, the same is true of all the joint F-tests for EIC, SELF and ARP regardless of the dependent variable. We thus know that our dependent variables, in some way, depend on each of our main independent variables in an interactive manner.

In short, the traditional table of coefficients tells us little about the effects of our main independent variables on health/education outcomes. Indeed, to avoid conflating coefficients with marginal effects, several authors recommend plotting the marginal effect (Franzese and Kam, 2007; Brambor, Clark and Golder, 2006). I thus continue exclusively with the display of marginal plots.

	lex	*InfMort*	*HlthSpWB*
lngdp	0.04	0.00	0.39***
	(0.05)	(0.00)	(0.15)
lnpop	-0.04	-0.00	-0.01
	(0.03)	(0.00)	(0.06)
Democracy	0.01***	-0.00	0.01
	(0.00)	(0.00)	(0.02)
Lagged DV	0.97***	0.90***	0.81
	(0.00)	(0.01)	(0.03)
ARP	42.07***	-0.13	59.12
	(15.79)	(0.49)	(46.03)
EIC	7.47***	0.04	5.96
	(2.90)	(0.08)	(6.84)
SELF	12.89**	0.05	7.41
	(5.11)	(0.14)	(12.28)
ARP×EIC	-47.51***	0.16	-66.82
	(17.87)	(0.55)	(52.45)
ARP×SELF	-113.22***	-0.32	-194.81*
	(36.20)	(1.24)	(115.13)
EIC×SELF	-14.15**	-0.05	-7.43
	(5.68)	(0.16)	(13.63)
ARP×EIC×SELF	128.19***	0.34	222.45*
	(41.23)	(1.41)	(131.91)
Constant	-4.18*	0.05	-4.56***
	(2.54)	(0.07)	(0.00)
N	433	198	211
No. Countries	34	32	31
adj. R-squared	0.99	0.99	0.91
Joint F-test on EIC[§]	*0.00*	*0.00*	*0.00*
Joint F-test on SELF[§]	*0.00*	*0.00*	*0.00*
Joint F-test on ARP[§]	*0.00*	*0.00*	*0.00*

Table 3.3 Regressions of ARP, SELF and EIC on Life Expectancy, Infant Mortality, and Health Spending EGC=medium-high

*p < 0.1, **p < 0.05, ***p < 0.01; Standard errors in parentheses;
[§]Joint F-tests on all single and interactive variables containing either EIC, SELF or ARP, respectively
InfMort is lagged by two years as data to maximize the number of observations.

Marginal Plots

Figure 3.3a shows the marginal effect of ARP on life expectancy when EGC=medium-high. Comparing this graph to Figure 3.3b—the predicted marginal effect—we see that the empirical results confirm my predictions in Hypothesis 2. Since Figure 3.3a contains 5 plots (one at each level of SELF), I make two changes to traditional displays of marginal effects. First, rather than plot the confidence intervals for each effect, I follow Brambor, Clark and Golder (2006) in employing stars to represent statistical significance at the 10% level. In addition, I vary the thickness of the line according to its value of SELF. Thus, the thickest line represents the marginal effect of ARP on life expectancy where SELF==.87, the maximum value in the sample. The thinnest line is where SELF==0.02, the minimum of the sample. The three lines in-between are the values of SELF at the 25th, 50th, and 75th percentile of the sample.
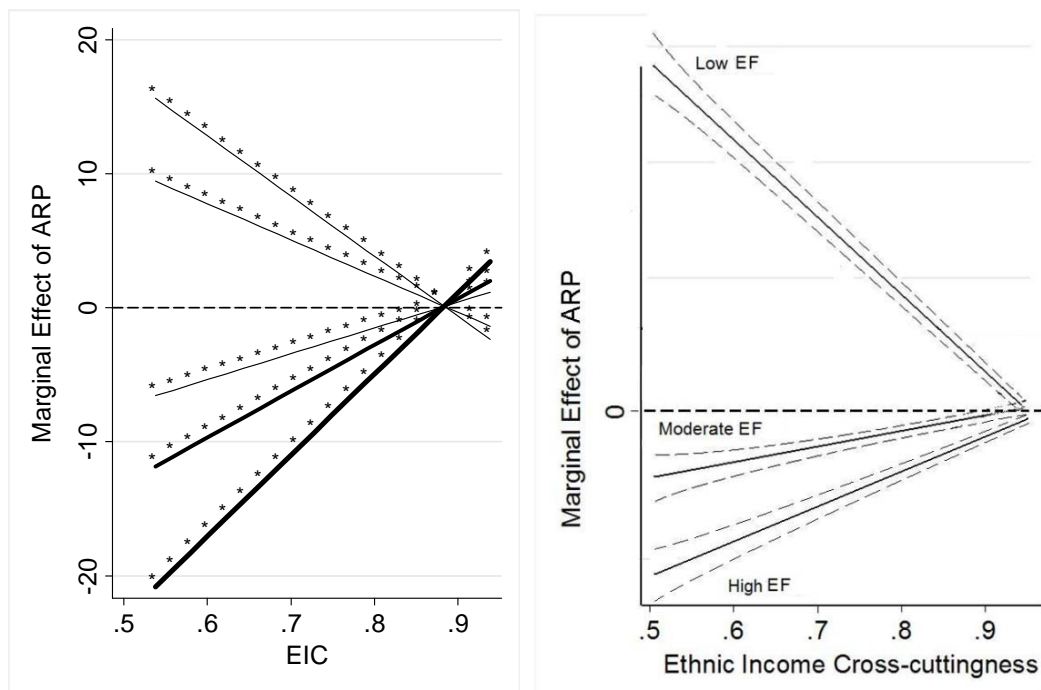
Figures 3.3a & 3.3b. Marginal Effect of ARP on Life Expectancy: Actual Results vs. Hypothesized
Plots lines represent (from thinnest to thickest) SELF=0.02, .16, 0.52, 0.64, 0.84

As predicted by Hypothesis 2a, ARP has a positive marginal effect on life expectancy when SELF is low, i.e. an increase in ARP will raise life expectancy. Indeed, the magnitude of the effect is as high as a seventeen-year increase in life expectancy at the lowest level of SELF and where EIC is low. In other words, changing from small

majoritarian districts to a single national PR district allocates resources so broadly (and efficiently) that a population can expect to live up to ten years longer on average, akin to increasing Bangladesh's life expectancy to Costa Rica's level (see Table 3.2). Moreover, the declined slope implies that as EIC increases the marginal effect of ARP on life expectancy decreases, verifying Hypothesis 2c. Where SELF is moderate-to-high (the thicker lines), approximately between the mean (.66) and the max (.87), Hypothesis 2b correctly predicts that the marginal effect of ARP is negative. The magnitude of the effect is as high as 6.5 years at the highest level of SELF and where EIC is low. In other words, changing from a single national PR district to small majoritarian districts is like increasing Bolivia's average life expectancy to Macedonia's. In accordance with hypotheses 1c, at high levels of EIC (low salience of ethnicity, or ex ante preferences for broad allocation), the institutional effect at all levels of EF tend toward zero. [61] In sum, we see that the direction and magnitude of the marginal effect of ARP on life expectancy depends on the level of both EIC and SELF.

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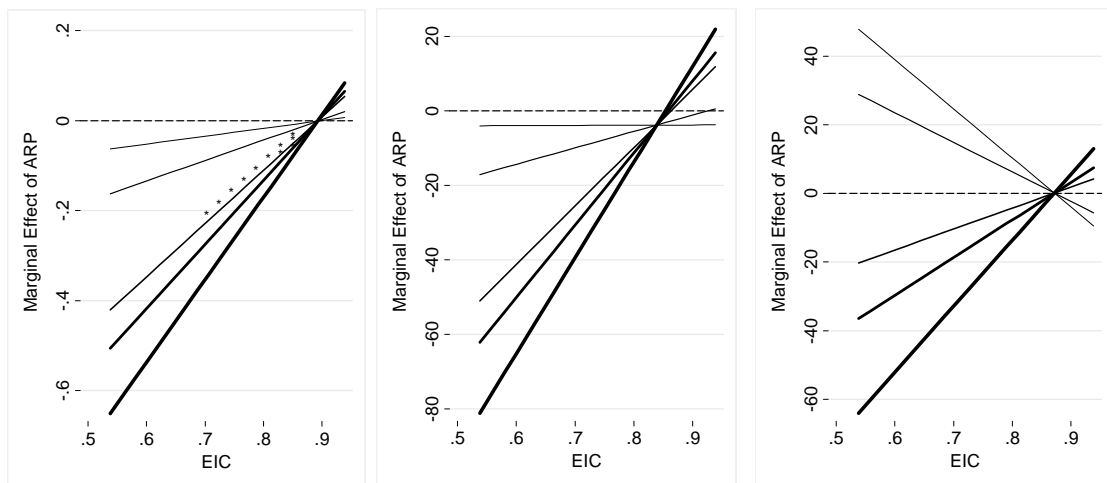
[61] As noted before in the main text, what, at first, seems like an interesting finding at very high levels of EIC (>.9) should not be read too much into since the model is restrictively linear and could possibly tail off at these levels.

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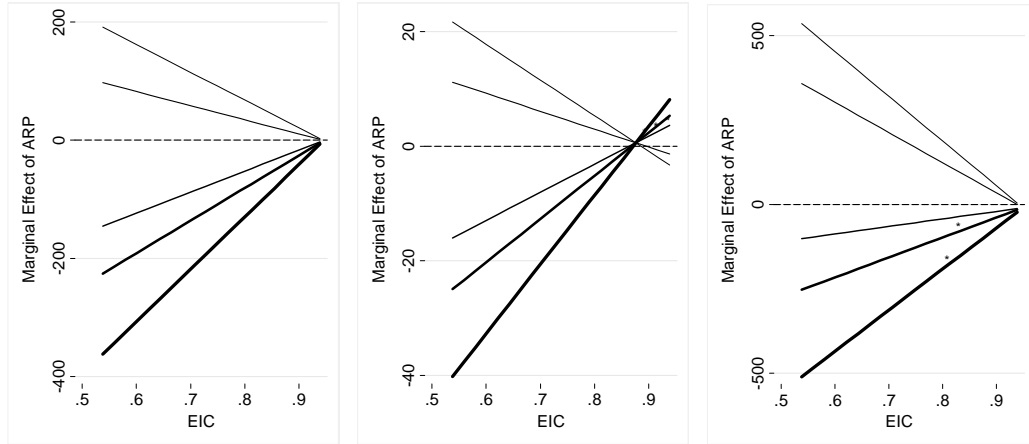
Figures 3.4a-f. Marginal Effect of ARP on *InfMort*, ImmMeas, ImmDiph, Transfers, HlthSpWB and HlthSpPrz*

Plots lines represent (from thinnest to thickest) SELF=0.02, .16, 0.52, 0.64, 0.84

Qualitatively similar results are obtained for infant mortality, and measles and diphtheria immunizations (Figures 3.4a and 3.4b). Indeed, the marginal plot for diphtheria immunizations is almost identical to Figure 3.3a. There is a slight (though not insignificant) departure for *InfMort* and *ImmMeas*: the marginal effect of ARP is not positive at low levels of ethnic fractionalization as expected. However, the marginal effect of ARP for all the spending variables (3.4d-f) is identical to Figure 3.3a. In sum, although none of the plots in Figures 3.4a-f are statistically significant (except a few small areas in a couple of the plots), as indicated by the lack of stars along the plot lines, they are supportive of the strong result in Figure 3.3a.

The Marginal Effect of ARP when EGC=low

Using all country observations at EGC=.482 and below renders only 140 data points in 12 countries for life expectancy and less for the other dependent variables. As such, I am less confident in pronouncing the results a serious test of the hypothesis. The low availability of data can be seen in the wildly different marginal plot obtained with life expectancy as the dependent variable. And while the marginal plot for diphtheria immunizations (Figure 3.5b) is closer to the predicted result, the inconsistency amongst

all the plots provides no reason for me to be even remotely confident that Hypotheses 1a and 1b are confirmed.
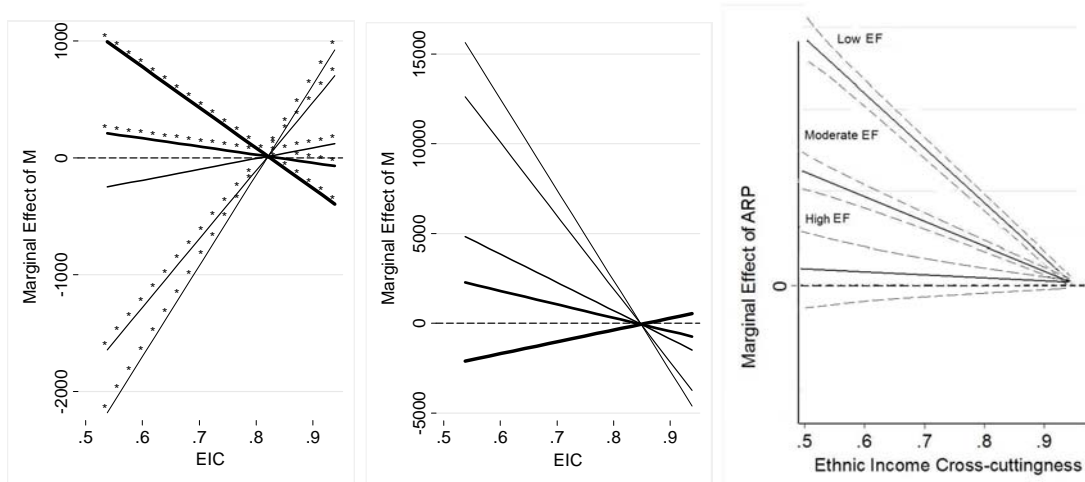
FIGURES 3.5a & 3.5b. Marginal Effect of ARP on *lex* and *ImmDiph* when EGC=low.

Plots lines represent (from thinnest to thickest) SELF=0.02, .16, 0.52, 0.64, 0.84

The Marginal Effect of Ethnic Fractionalization

Contrary to prior studies, I find that ethnic fractionalization only has a harmful effect on public goods provision under certain conditions: ARP is high (at the mean and above) *and* EIC is low (less than the mean). Thus, when electoral institutions are poorly designed so as to not provide incentives for candidates to seek out the support of members of other ethnic groups, ethnic fractionalization is harmful for public goods. In contrast, well-designed institutions can mitigate the effects of high ethnic fractionalization and low ethnic-income cross-cuttingness.

Figure 3.6 depicts the marginal effect of SELF on life expectancy where EGC=medium-high. The different lines now indicate different values of ARP. The thinnest plot line, where ARP is at its minimum (single-member majoritarian districts), indicates that the marginal effect of ethnic fractionalization is positive, i.e. adding more ethnic groups actually increases the provision of public goods. The thickest line is where ARP equals one. We see that at high levels of ethno-income cross-cuttingness, even when ARP is high, the marginal effect of ethnic fractionalization is positive.

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Alternatively, in societies where ethnic groups have comparative levels of wealth, ethnic diversity is actually beneficial to public goods provision.
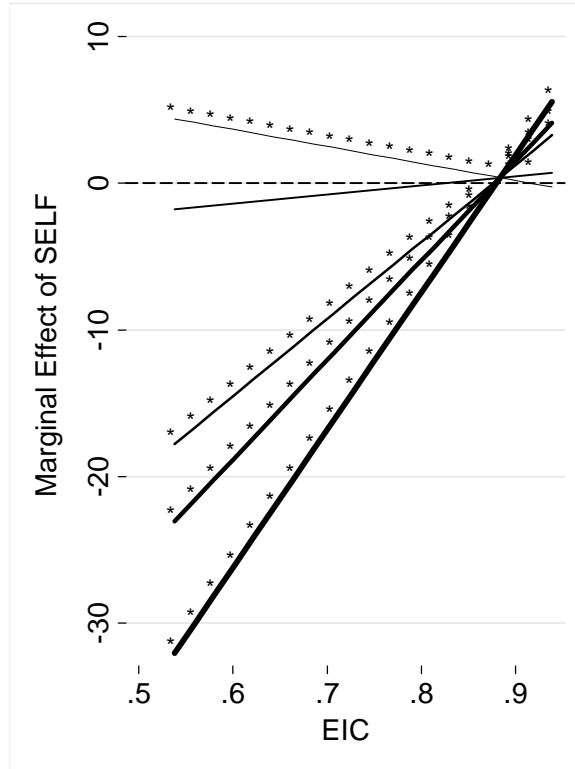
FIGURE 3.6 Marginal Effect of SELF on *lex*

Plots lines represent (from thinnest to thickest) ARP=0.002, .008, 0.03, 0.05, 1

3.7 Conclusion

The empirical results presented in this chapter lend substantial support to the socio-institutional theory of public goods provision advanced in this dissertation. The results underscore the interactive nature of institutions and ethnic structure on constituency breadth—broad constituencies are not simply defined by electoral rules. Indeed, we see that the effect of electoral rules is modified by three characteristics of ethnic structure: ethnic fractionalization, ethno-income cross-cuttingness and ethno-geographic cross-cuttingness. The results of this chapter have important implications for institutional theories in Political Science. Specifically, higher ARP does not necessarily lead to broader resource allocation. Indeed, in countries that are ethnically diverse (high

EF, low EIC), lower ARP actually encourages the creation of broader constituencies because it encourages candidates to seek electoral support from members of other ethnic groups. This result is conditional on ethnic groups *not* being concentrated in their own regions (EGC=low), which I was unfortunately unable to shed empirical light on.[62]

The results also shed light on the effect of ethnic fractionalization on allocation breadth. Ethnic fractionalization, alone, is an inadequate measure of ethnic diversity. Whether ethnic fractionalization harms public good provision or not, and the degree it does so, depends on the level of ethno-income cross-cuttingness. Where cross-cuttingness is high, increasing the number of ethnic groups leads to broader allocation regardless of the institutional environment. Where cross-cuttingness is not high, the effect of ethnic fractionalization further depends on the institutional environment: when ARP is low, increasing the number of ethnic groups broadens resource allocation, but when ARP/district magnitude is high, ethnic fractionalization leads to narrower allocation, even at higher levels of EIC.

Lastly, the results in this chapter represent probably the first cross-country quantitative analysis linking cross-cuttingness to any political phenomena. It is fitting that our understanding of institutions has developed sufficiently that the concept of cross-cuttingness can be tested appropriately, i.e. with the institutional environment in mind. I find that ethno-income cross-cuttingness has a constituency-broadening role, and can thus "pre-empt" the need for institutions in an ethnically fractionalized society. Ethno-income cross-cuttingness also modifies our understanding of the role of ethnic fractionalization. Having many ethnic groups in a society is not harmful if society is highly cross-cutting.

In conclusion, this chapter has offered important insights into the functioning of electoral institutions in different societies. We have seen that different social preferences, or social structures, require different institutions in order to induce compromise for and coordination of the provision of broadly-redistributive quasi public goods. In addition, we have seen that ethnic "diversity" is not necessarily harmful to allocation breadth: even with inherently diverse and fragmented social structures, selecting the right institutions

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[62] A possible reason for the lack of low-EIC countries in my dataset is that such countries do not meet the democratic requirements for inclusion. Indeed, if electoral rules are inappropriately designed for such countries, they are less likely to remain democratic *ex ante*. A qualitative study of such countries' attempts to democratize would be instructive on this point.

can channel these preferences in positive ways. In short, the degree of party nationalization, or the *effective* size of constituencies to which politicians respond, impacts allocation breadth. As emphasized repeatedly throughout this dissertation, institutions alone do not define the size of constituencies. We have seen that broad constituencies may result from a combination of low fractionalization (and cross-cuttingness) with high ARP/district magnitude, or high fractionalization (and low cross-cuttingness) with low ARP/district magnitude. In the qualitative chapters that follow, I analyze two countries that fit these two broad constituency types. First, I look at Thailand, which experienced a dramatic increase in ARP following the 1997 constitutional changes. Whereas in the pre-1997 period, education and health were underprovided, the new constitution heralded an era of unprecedented policy attention from the government, when, among other positive changes, there was a doubling of the proportion of the population covered by state health insurance. Post-1997 Thailand fits the first effectively-broad-constituency scenario—low fractionalization with high ARP/district magnitude. Second, I turn to Mauritius with its highly diverse society—high fractionalization, low cross-cuttingness. Both sociological and institutional theories considered separately would condemn the country to failure in health (and other public goods) provision. However, the low district magnitude in Mauritius channeled ethnic electoral competition in ways that induced politicians to build cross-ethnic coalitions, field multi-ethnic candidate slates, and target health and education broadly to the population. As we shall see, this surprising outcome was dependent on the medium level of ethno-geographic cross-cuttingness.

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Chapter 4: Constituency Breadth in pre-1997 Thailand and Mauritius

4.1 Introduction

In the preceding chapters, I developed and tested a theory of party nationalization in ethnically diverse and ethnically homogenous societies. In the next three chapters, I use the theory to explain a puzzling comparison, in terms of existing literature, concerning the breadth of resource allocation in Thailand and Mauritius. I employ an *embedded, multiple-case* research design whereby I analyze the breadth of constituencies and, in turn, resource allocation in two countries across two different periods of time (Creswell 2007). In chapter 4, I detail the mechanics of coalition building in Mauritius in the period 1976-2008 and Thailand in the period 1979-1997. During these periods, both countries had virtually identical electoral rules: First-Past-the-Post (FPTP) in small multi-member districts (MMD's). The two cases were carefully chosen to be *most similar* on the institutional variable while *most different* on the sociological variable: Mauritius is an ethnically diverse country while Thailand is fairly homogenous. This design allows me to directly investigate the main puzzle of this dissertation – do electoral rules work identically in different social settings? Contrary to the expectations generated by existing institutional and sociological theories, diverse Mauritius with its narrow electoral-system breadth results in broad, national alliances whereas homogenous Thailand fragments into numerous, parochial parties. Chapter 5 then connects the nature of coalitions in each country to the provision of health and education. Finally, chapter 6 takes advantage of the electoral reforms in Thailand in 1997 and the similar, much-discussed, but hereto forth unimplemented, reforms in Mauritius. Specifically, I trace the process by which parties in Thailand broadened their electoral bases, designing new health and education policies to cater to national constituencies following the 1997 reforms. In Mauritius, I

turn to the debates on electoral reform, predicting a return to the ethnic parties of the pre-independence era.

The remainder of this chapter proceeds as follows. First, I briefly compare performance in health and education provision in Thailand and Mauritius. Following, I describe the electoral rules that both countries employ in the period under study. Next, I detail the social structure of Thailand and analyze the nature of political coalitions that formed in the 1979-1997 era. Finally, I perform the same analysis for Mauritius. The balance of this chapter weighs in favor of Mauritius for two reasons. First, since Thailand's social structure is, for the intents and purposes of this dissertation, similar to the societies of Western Europe, its party development neatly fits existing institutional theories. In addition, much has been written on the nature of parties in Thailand in this era. The section on Thailand, then, is in many ways a review of existing accounts, although my account focuses on the crucial socio-institutional interactions that resulted in the particular strategies that occurred. The literature on Mauritius is much more scarce and much less analytical in nature. I thus dedicate more space to explaining the electoral strategies and responding to the numerous explanations that abound in the historical descriptions.

4.2 Thailand and Mauritius: A Puzzling Comparison

If ethnically diverse societies have problems providing national public goods, Mauritius already has one strike against it. However, narrow electoral-system breadth is also associated with poor public goods provision, handing Mauritius its second strike. Why, then, is Mauritius not a basket-case in terms of health and education provision? Moreover, why does Thailand, which suffers from just the latter of those two strikes, perform so much worse in comparison to Mauritius? Not that Thailand is particularly a basket-case itself. As one of the rising Tiger economies of Southeast Asia, this country of over 60 million people performs right about where we would expect given its GDP per capita on the education index, but underperforms on the health index. Indeed, Thailand's

life expectancy is in the bottom quartile of all middle income countries and ranks 7/8 for all Asia-Pacific middle income countries.

		Composite (Predicted-Actual)		Health (Predicted-Actual)		Education (Predicted-Actual)
1	Philippines	0.04	Sri Lanka	0.09	Philippines	0.09
2	Sri Lanka	0.04	China	0.03	Samoa (Western)	0.08
3	Samoa (Western)	0.03	Philippines	0.03	Tonga	0.08
4	Tonga	0.03	Tonga	0.02	Fiji	0.05
5	China	0.02	Malaysia	0.02	China	0.02
6	Fiji	0.00	Samoa (Western)	0.01	Sri Lanka	0.02
7	**Thailand**	**0.00**	**Thailand**	**-0.03**	**Thailand**	**0.01**
8	Malaysia	-0.01	Fiji	-0.03	Malaysia	-0.03

Table 4.1 Asia Pacific Middle Income Countries, Difference between Predicted Health, Education and Composite Index Values based on GDP (logged) and controlling for Region *and* Actual Index Values.

In contrast, Mauritius, a small island of 1.2 million people 500 miles off the coast of Madagascar, is hailed not only as the economic tiger of Africa, but its shining stat in terms of human development. Indeed, among Sub-Sahara African middle income countries, Mauritius ranks second on all three measures. Moreover, Mauritius ranks second overall for health and the composite measure amongst *all* middle income countries, and 16th out of the 65 middle income countries on the education index.

		Composite (Predicted-Actual)		Health (Predicted-Actual)		Education (Predicted-Actual)
1	Cape Verde	0.11	Cape Verde	0.27	Cape Verde	0.06
2	**Mauritius**	**0.11**	**Mauritius**	**0.25**	**Mauritius**	**0.07**
3	Gabon	0.01	Gabon	-0.02	Gabon	0.03
4	Namibia	-0.01	Namibia	-0.14	Namibia	0.10
5	South Africa	-0.03	South Africa	-0.17	South Africa	0.07
6	Botswana	-0.10	Botswana	-0.37	Botswana	0.06
7	Swaziland	-0.11	Swaziland	-0.38	Swaziland	0.05

Table 4.2 Sub-Sahara African Middle Income Countries, Difference between Predicted Health, Education and Composite Index Values based on GDP (logged) and controlling for Region *and* Actual Index Values.

The socio-institutional theory I presented in Chapter 1 offers a solution to this puzzle: electoral rules do not offer the same set of incentives in countries with different social structure. In the accounts that follow, I detail the ethnic fractionalization, ethno-income cross-cuttingness and ethno-geographic cross-cuttingness in Thailand and Mauritius and demonstrate that the combination of these different social structures with a similar set of electoral rules resulted in different incentives, and hence different electoral strategies.

4.3 Electoral Rules in Thailand and Mauritius

Since Thailand and Mauritius share the same basic electoral rules, I begin with a description of them here. Both countries employ plurality systems (or First-Past-the-Post, FPTP) in a rare combination with multi-member districts. FPTP is sometimes referred to as a "winner-takes-all" system, since whichever candidate has the *most* votes (regardless of how low the total) takes the seat. As such, plurality is a less strict version of majoritarianism, the latter of which requires a simple majority, or 50% + 1. Nevertheless, as Duverger first pointed out more than 50 years ago, FPTP systems tend toward competition between two candidates in each single-member district. However, Thailand and Mauritius did not have single-member districts during this time period. Indeed, the multi-member districts employed in both countries meant that they essentially had First-Three-Past-the Post systems, commonly referred to as the block vote. In Mauritius, all but one district has a magnitude of three, i.e. three legislators were elected in each district, whereas in Thailand this ranged more from one to three, but with a mode of three and an average of just under 3.

These small districts meant that the average politician in both Thailand and Mauritius was accountable to a small subsection of the population. Since politicians' success relied only on the proportion of the electorate living within the district boundaries, politicians have no incentive to implement national policies. Indeed, as is typical of FPTP systems, there are strong incentives for politicians to engage in some kind of universal reciprocation in narrowly allocating government resources to local districts

(Weingast, Shepsle, and Johnson 1981). Even if parties have strong internal mechanisms, however, another feature of majoritarian systems also leads to narrow targeting: party leaders will strategically target resources to marginal districts (Milesi-Ferretti, Perotti, and Rostagno 2002).

Other features of the electoral rules meant that there were strong incentives to emphasize personal characteristics at the expense of the party label in order to win a seat. Voters in both countries were able to cast as many votes as there are seats, i.e. three. However, they were not allowed to cast all three votes for the same candidate (cumulation), but could cast votes for candidates from different parties (panachage).[63] Panachage meant that there were incentives for intra-party cohesion at the district level were even weak, let alone diminishing party strength at the national level. Despite these party-weakening features, Mauritian parties exhibited much stronger party cohesion at *both* the district and national level than did Thailand. Indeed, while Thai parties were characterized as fragmented, undisciplined and short-lived, Mauritian parties were comparatively small in number, national in focus, disciplined at the district level and enduring.

4.4 Existing Explanations of Party Nationalization

The literature on the nationalization of party systems has burgeoned over the past decade since Cox's call for greater theoretical attention to cross-district coordination (Cox 1997). Masquerading under several terminologies, such as aggregation (Kollman and Chhibber 2004; Hicken 2009) and linkage (Cox 1997), cross-district coordination has been linked to two types of centralization: vertical and horizontal. Neither of these explanations is able to account for the variation we see between Thailand and Mauritius, however.

In terms of *vertical centralization*, or the concentration of power at the national level of government as opposed to sub-national bodies (Kollman and Chhibber 2004). Thailand and Mauritius are both unitary states with very little decentralization to local

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[63] One small difference is that Thai voters did not have to cast all three of their votes if they so chose.

bodies. The powerful central ministries of both countries control their mainly administrative arms in the various regions. In Mauritius, 100% of both income and corporate taxes and 85% of property taxes go directly to the central government (Support Document 3 2001, p. 150). In terms of expenditures, 100% of Defense, Education, Health, Police, Welfare and Subsidies go directly to the central government (Support Document 3 2001, p.164). Likewise, Thailand's central government controlled, on average, 93% of government revenues in the 1979-1997 era and 94% of government expenditures.[64]

Several aspects of *horizontal centralization*, or the concentration of power within the national government, also affect cross-district coordination (Hicken 2009). Hicken argues that the low payoff to being the largest party in parliament explains the poor cross-district coordination in Thailand. He attributes this low payoff to several factors: first, an upper chamber in the legislature that, although bereft of official powers, exerted enormous pressure on the prime minister, especially up until 1988, and thereby acting as a reserve domain. Second, party factionalism that stripped the Prime Minister of ultimate control, making him more of a "first among equals" (Hicken 2009, p. 96). Lastly, the method of prime ministerial selection made it uncertain that the leader of the largest party in parliament would take power. Mostly, this last feature can be attributed to the era of semi-democracy that Thailand was under from 1979-1988, the prime minister being appointed by the military. While it is true that Thailand had a lower payoff to being the largest party in parliament than Mauritius for the first part of the period under study, most of these mechanisms had disappeared by the 1990's. The Prime Minister was fully elected in 1988 and eliminated the financial ministries that were the reserve domain of military interests, and the Senate was increasingly made up of appointees from the business community.[65] This leaves the explanation for the low payoff to being the largest party in the 1990's down to the party factionalism factor.

In Mauritius, there have never been any reserve domains, nor an upper house or other competing branches of central government. A president was elected in 1992, but

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[64] My own calculations from Thailand Ministry of Finance data.
[65] Hicken (2009, p.119-122) discusses that this process was gradual. The post of Prime Minister was again offered to the same army general (Prem Tinsulanonda) in 1988, but was turned down. Not until 1992 was an elected Prime Minister guaranteed.

this was mainly symbolic in replacing the British Monarch as Head of State and had no formal or informal influence on the Prime Minister's powers (Dubey, 1997). Mauritius has experienced party factionalism, however. Though not to the extent of Thailand, Mauritian political history over the past three decades is replete with examples of powerful factions and party defection, whether switching to existing parties or creating new ones. For example, following the first post-independence elections in 1976, the Boodhoo faction defected and formed the *Parti Socialist Mauricien* (PSM), which lasted only four years before joining with the *Militant Socialiste Mauricien* (MSM) itself a faction that defected from the *Mouvement Militant Mauricien* (MMM). Since this period, the MMSM splintered from the MSM, the RMM from the MMM, and the PMXD from the PMSD, to name but a few. Most of these defections have been small in terms of numbers, but party factionalism is nevertheless a feature of the Mauritian political landscape. In short, hhorizontal centralization seems to be an insufficient explanation for the difference in party nationalization we observe between Thailand and Mauritius.

4.5 Social Structure in Mauritius

Mauritius is a deeply complex society, with numerous possible dimensions of identity (ethnicity, religion, class and caste), and varying degrees of geographic spacing for each potential group. And whereas the electoral rules interacted with Thailand's social structure to produce narrow constituencies, the same rules encouraged broad constituencies in Mauritius.

Ethnicity and Religion

There are five major ethnic[66] groups in Mauritius: the Indian-Mauritians, who constitute 52% of the population; the Urdu-Mauritians[67] (16.5%); the Creoles (26.5%);

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[66] In Chapter 1, I explicitly define ethnicity as distinct from religion.

[67] Indian-Mauritians and Urdu-Mauritians, which are often referred to collectively as Indo-Mauritians, are my own terms. The majority of both groups originate from the Northern-eastern regions of India. Ethnicity based on racial and linguistic characteristics is as complicated as it is in India. However, Muslims overwhelmingly identified their ancestral language as Urdu on the 1972 census. Indeed, given the closeness of spoken Urdu and other North-Eastern Indian languages (Bhojpuri especially) some Urdu-

the Chinese (3%) and the Franco-Mauritians (2%). The major religious groups correspond closely to the ethnic categorizations. Hindus are the largest group (50%) corresponding to the Indian-Mauritian community. However, at Independence, Hindus constituted 52.5% of the population.[68] Likewise, Muslims (16.5%) correspond to the Urdu-Mauritian community. The remaining religions are Christians/Catholics (32%), Buddhists (1%) and Sikhs (<1%).[69] Franco-Mauritians and Creoles make up the vast majority of Christians, but there are some Indian Mauritian converts, mostly of Tamil descent. The Chinese also converted to Christianity in heavy numbers—between 70-80% by the 1960's—although they maintain strong cultural distinctiveness[70] (Eriksen 1998; Simmons 1982). Mauritius thus has a medium-low level of ethno-religious cross-cuttingness. While Christianity cuts across the Creole, Franco-Mauritian, Chinese and Indian-Mauritian (Tamil) communities, Indian-Mauritians and Urdu-Mauritians are almost exclusively Hindu and Muslim, respectively, and none of the other ethnic groups converted to Hinduism or Islam.

Socio-Economic Class

In addition to religion reinforcing ethnicity, there is a fairly strong ethnic dimension to socio-economic class (Eriksen 1998; Chazan-Gillig 2003; Bunwaree 2007, p.195). The Franco-Mauritians sit clearly atop the pecking order. Originally owners of the lucrative sugar plantations which dot the island, these descendents of French settlers took advantage of the economic boom, diversifying their holdings into finance and export holding companies. The Chinese are the second wealthiest ethnic group in Mauritius. Similar to Chinese diasporas in other parts of the world, this group dominated the internal trade in Mauritius in the colonial era. Much like the Franco-Mauritians, the Chinese' original wealth meant that they were poised to take advantage of the country's export-

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Mauritians even claimed Arabic as their ancestral language in the 1982 census in order to differentiate themselves from Indian Mauritians. These figures are my averaging of various sources including Simmons (1982), Dubey (1997), Eriksen (1998) and the 1962, 1972 and 1982 censuses.

[68] This figure based on 1972 census data. It is important to note, since one of my major arguments is that electoral boundaries were crucial in denying Hindus an absolute majority – rather than them not constituting a majority, which they do not today. However, even with a proportion slightly less than 50%, careful drawing of boundaries would have been crucial to ensure Hindus could not easily win a majority of seats.

[69] Exact numbers are uncertain since the last census that recorded ethnicity or religion was 1972.

[70] Social interactions are still strongly centered around the pagoda according to Eriksen (1998)

oriented growth strategy. The Indian-Mauritians are generally perceived to be the next best off in financial terms. Indeed, many individuals from this group have substantial holdings[71]. Their cultural emphasis on education has also led ensuing younger generations to benefit from tertiary education and enter professions such as law and medicine. Many Muslims, like the Chinese, were also heavily involved in trade during the colonial era. The Creoles are generally perceived to be the poorest ethnic group in Mauritius despite their being installed in the lower levels of bureaucracy under the British and them being perceived, upon independence, of being better off than the Indians. Their social exclusion was brought to the public's attention in 1993 following Catholic priest Father Roger Cerveaux's coining of the term *malaise créole* in his address at the annual celebration of the abolition of slavery (Miles 1999). However, there are significant parts of the Indian-Mauritian community, especially those that still work as laborers on the sugar plantations that have equal claim to impoverishment (Eriksen 1998, p.107). Mauritius thus has a medium-low level of ethno-income cross-cuttingness

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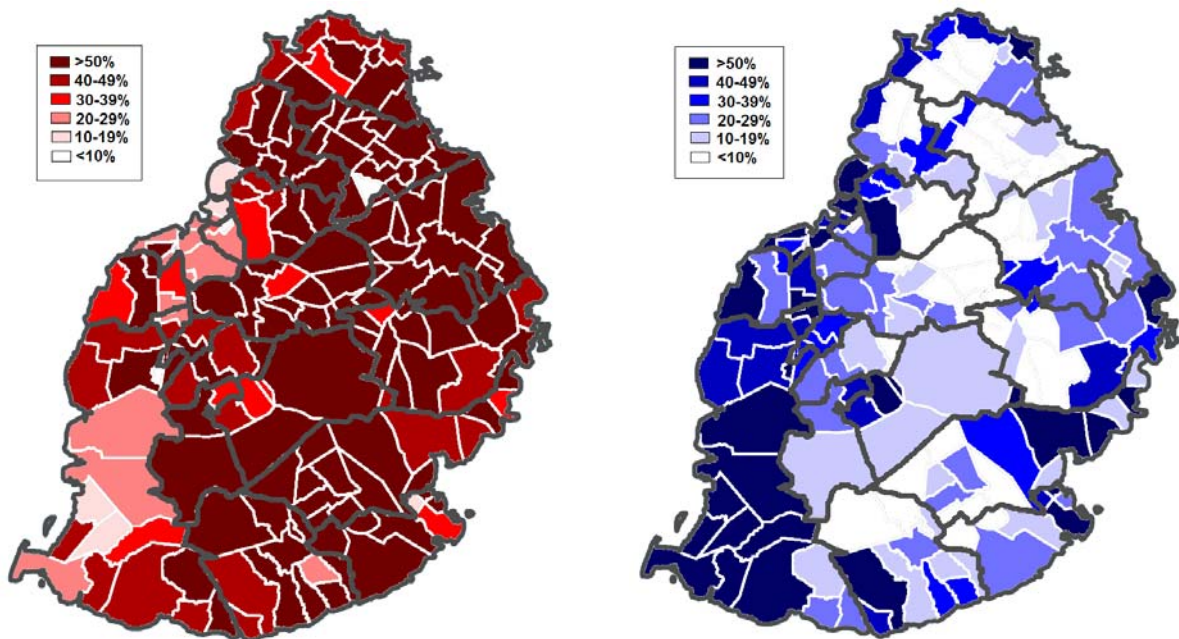
[71] Eriksen (1998, p.106) cites '*Azordi, tu pu malbar'* (Today, everything belongs to the Hindus) as a common expression among Creoles and Muslims.

Figures 4.1 & 4.2 Geographic Dispersion of Hindus (left) and Christians (Creoles and Franco-Mauritians) in Mauritius

Geographic Dispersion

There is a fairly strong correlation between ethnicity and location of residence, both in terms of urbanicity and specific regions of the country. Hindus are the majority in most rural areas of the country, whereas the Creoles, Muslims and Chinese mostly live in urban areas. Given their size, however, it should be noted that Hindus are spread out across the entire island. While the Franco-Mauritians do not tend to be identified in urban-rural terms, they are heavily associated with the lush Plaines-Wilhem region in the Southeast of the Island. Creoles generally live in the Port-Louis megalopolis that extends from Port-Louis in the Center-East to Vacoas in the heart of the island. The Chinese are also highly concentrated in one area of Port-Louis. The Muslims are the most geographically dispersed of all groups making it difficult to draw district boundaries wherein they constitute the majority (Eriksen 1998). Thus, Mauritius has a medium level of ethno-geographic cross-cuttingness. Ultimately, this moderate level of geographic dispersion has benefited Mauritius, making it easier to prevent the Hindus from dominating elections.
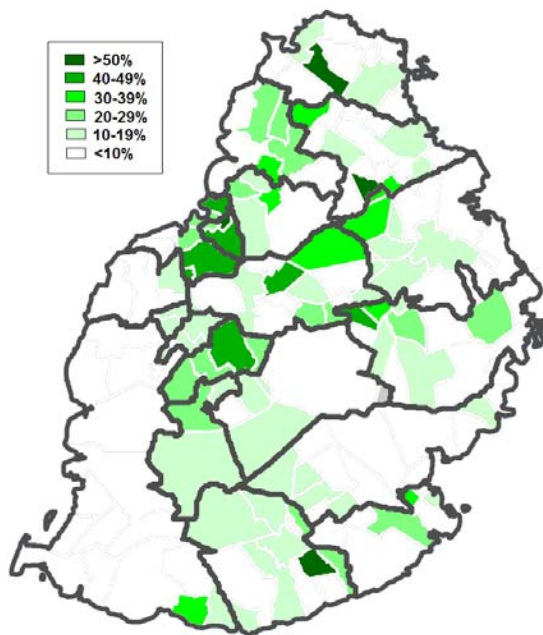
Figure 4.3 Geographic Dispersion of Muslims

4.6 Effective Constituency Breadth in Mauritius

Mauritius is divided into 20 three-member districts on the mainland plus a single two-member district on the island of Rodrigues.[72] There are several possible constituencies to which a politician in Mauritius could see himself accountable to and, thus, cater to. I argue that, unlike Thailand, the strongest incentives for Mauritian politicians are *not* to cater to the electoral district, nor to emphasize personal characteristics at the expense of the party label. Indeed, I argue that the FPTP system in Mauritius provides strongest incentives for politicians to cater to a *national* constituency.

The logic behind party nationalization incentives is two-fold. First, in contrast to Thailand, ethnicity matters in Mauritius. Because ethnic identity is reinforced by religion and socio-economic class, ethnic differences are socially salient. In addition, due to the level of ethnic fractionalization—there is not one dominant group—ethnicity is electorally salient. Thus, the utility function of the electorate and accompanying electoral strategies in Mauritius are simply different from those of the Thai electorate. Specifically, Mauritian voters engage in ethnic head-counting and seek to maximize the share of their ethnic group in parliament. As such, shared ethnic identity provides incentives for politicians elected in separate electoral districts to join together with co-ethnics from other districts. Both the electorate and politicians desire to see their ethnic group fairly represented in parliament. Thus, ethnic identity encourages cross-district coordination, a process that was absent in pre-1997 Thailand. In other words, cross-district partnerships in Mauritius are much stronger than the incidental, temporary parties in Thailand. In addition to encouraging cross-district coordination, ethnicity in Mauritius helps overcome the district-level coordination problem that the electoral rules induce. First, co-ethnics coordinate so as not to field too many candidates in the district. Lack of coordination could mean that even the largest ethnic group is not able to win a single seat in a three-seat district. Both these types of coordination are not possible in Thailand due to the lack of ethnic electoral salience.

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[72] Up to an additional eight legislators are elected in a unique *Best-Loser System (BLS)*, originally created to ensure ethnic equality in the legislature. As I show later on in this chapter, the BLS has become largely symbolic, never featuring into the strategies of political parties, and never determining the winner of any election.

Ethnic salience and intra-ethnic coordination is a necessary, but not sufficient condition for the formation of national constituencies in Mauritius. Incentives for cross-district coordination do not automatically result in national constituencies, just constituencies of some broader nature; in the case of Mauritius this could be ethnic ones. Thus, how have incentives for the broadest type of constituencies emerged in Mauritius? More particularly, why has a single Hindu party not formed and consistently won a majority? The answer to this question has to do with the geographic concentration of ethnic groups and, more specifically, the manner in which district boundaries are drawn around ethnic groups. Despite there being some ethno-geographic patterns in Mauritius, it is moderate enough to allow the creation of multi-ethnic constituencies wherein the ability of a candidate to form a majority depends on the votes of other ethnic groups. This explains why Hindus have not been able to create a single party capable of consistently forming the government. At the very least, such a party would have to rely on at least one other major ethnic group (i.e. not the Chinese or Franco-Mauritians). Thus, instrumental ethnic voting which may begin as groupings of politicians of the same ethnicity into parties, necessarily broadens into national constituencies as individual politicians bring together multi-ethnic support bases. It is important to note that it is the small, majoritarian districts in combination with Mauritius' social structure that encourage this reliance on other ethnic groups.

The medium level of ethno-geographic cross-cuttingness also prevents the Hindus from buying off a single group – say the Chinese – rather than catering to the whole nation. It would certainly be cheaper for the Hindus to narrowly target goods to this community, say with a Chinese cultural center, or including Mandarin in the education system, than sharing resources with all groups. This is not possible, however, given the way the district boundaries are drawn, which is greatly restricted by the level of ethno-geographic cross-cuttingness. There is great variability in each district and any number of combinations of ethnic groups could conceivably win a seat. The result is that candidates must rely on the votes of more than one ethnic group to win seats. As such, parties in Mauritius, though they tend to be symbolically associated with certain ethnic groups, field candidates of multiple ethnicities. Ostensibly Hindu parties field Creole candidates, and vice-versa. Thus, ethnic head-counting at the national level leads to

strategic inter-ethnic vote trading at the district level. In other words, Hindus in one district may vote for a Creole candidate in exchange for Creoles voting for a Hindu candidate in another district. Again, majoritarianism makes such district-level coordination a part of Mauritians' electoral strategy.

Regardless of the geographic concentration of ethnic groups, boundaries could be gerrymandered to the benefit of certain groups. However, while Mauritius has not been free of boundary manipulation, gerrymandering has been confined to the benefitting of parties and alliances rather than of ethnic groups (Ragodoo 1998). To elucidate: since the original socio-institutional environment led to the creation of multi-ethnic parties and alliances, ethnic entrepreneurs in government would risk losing electoral support if seen to manipulate boundaries solely in favor of his/her ethnic group.[73]

The reliance on other ethnic groups operates at the national level as well as at the district level. Even if individual candidates at the district level were able to successfully buy off members of other ethnic groups within their district, at the national level, it is still extremely difficult for the Hindus to constitute >50% of the legislature.[74] The disproportionality of district boundaries in favor of non-Hindu groups means that in order to form a government, a Hindu party would still have to recruit the support of legislators of different ethnicities. There is thus a third layer to the multi-ethnicity of the party system in Mauritius: multi-party coalitions are necessary.

In sum, given the same set of electoral rules as Thailand, a very different set of constituency-forming incentives emerged in Mauritius. At both the district level and national level, majoritarian forces encourage Mauritian society to come together and forge a "common denominator" from its numerous, disparate social groups.[75] This combination of social structural and institutional incentives is widely recognized in Mauritius; attempts by politicians of one ethnic group to cater to those of other groups is often referred to as *Scientific Communalism,* recognizing the strategic response of

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[73] An informant in the MLP (Interview: August 2008) said that even though the party targets policies at a certain ethnic group it cannot publicly state the policy as such. It must be "a government for all Mauritians."

[74] The initial strategic decisions of politicians took place around Independence when Hindus constituted 52.5% of the population. See also footnote 10.

[75] "Common denominator" is the title of the definitive anthropological study of social structure in Mauritius by Eriksen (1998).

politicians to the socio-institutional environment[76].   For majoritarianism to lead to an effectively national constituency, two conditions must be met. First, ethnicity must be sufficiently salient, which I gauge by a lack of ethno-religious and ethno-income cross-cuttingness. Second, boundaries must be drawn around ethnic groups in such a way as to make candidates rely on the votes of other ethnic groups to win seats, and any potential ethnic party to rely on an alliance with other parties to form a government. This boundary-drawing exercise is facilitated by a moderate level of ethno-geographic cross-cuttingness.

Since the literature on Mauritian politics is scarce, in the remainder of this section, I present a detailed description, based on original primary research (newspaper archives and personal interviews), of the formation of political constituencies in Mauritius. Specifically, I describe the ethnic composition of electoral districts in Mauritius, the multi-ethnic nature of Mauritian political parties, and the alliances and outcomes of all elections since 1976.

Multi-ethnic Parties and the Ethnic Composition of Electoral Districts

According to Dubey (1997), Hindus constituted the majority community in just ten of the twenty constituencies on the Mainland at the time of the first post-Independence elections.[77] My own calculations, see Figure 2.5, verify that this has not changed today.[78] This boundary design seemed to be a purposeful part of the electoral system left by the British to counter the "Hindu Peril"[79] and the fear that independence would mark "the end of western civilization and Christian tolerance in Mauritius" (*Le Cerneen,* 12 April 1953).[80] Single-member districts had resulted in some cross-ethnic voting in pre-independence elections. However, Hindus, under the guise of the Mauritian

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[76] Chandra (2004) refers to this as ethnic head-counting.

[77] For the purposes of this discussion, I exclude the ethnic composition of the island of Rodrigues. Even though the island is almost entirely Creole, the inhabitants consider themselves as distinct from Creoles on the Mainland and thus the constituency did not feature into the strategic decisions of the major political parties.

[78] Based on 2000 Census data.

[79] This was a campaign slogan of charismatic Creole leader Gaetan Duval in the lead up to the pre-independence election (Dubey 1997, p. 65).

[80] Quoted in Dubey (1997, p.57). Bowman (1991) mistakenly argues that, if united, Hindus could "clearly win any election." This is only a true statement if the other ethnic groups did not unite against them. As I show, there were strong incentives for Muslims and Creoles to unite.

Labour Party (MLP) still won a disproportionate share of seats during this period, and the British were reluctant to make this a permanent feature of the fledgling nation.[81] Figure 4.4 shows the approximate proportion of Hindus vs. non-Hindus around the time of independence (1968).
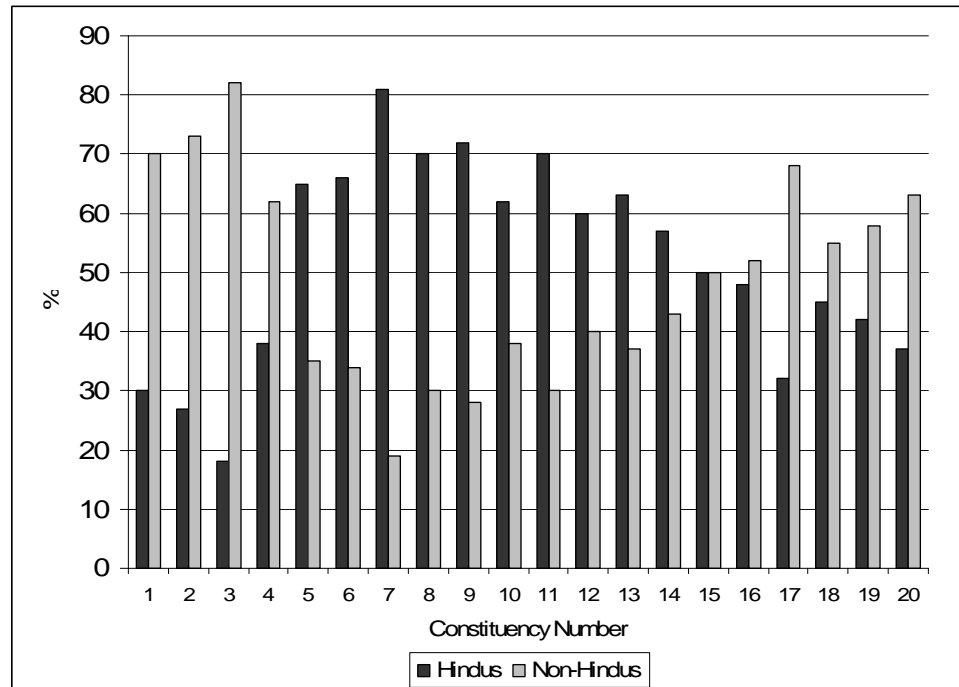
Figure 4.4 Percentage of Hindus and Non-Hindus in Mauritius' twenty constituencies.
Source: Author's own amendment (based on 1972 census data) of Dubey (1997)

What this distribution of ethnic groups meant was that, even if a single, unified Hindu party did emerge, it would have to enter into a coalition with another ethnic party.[82] The Hindu community itself was split as to how to do this exactly.[83] As the

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[81] In 1953, the increasingly Hindu-dominated Labour party won 14/19 seats, or 73.5%. There were riots in many districts, mostly instigated by the Ralliement Mauricien. However, Hindus were discontented by the British government stacking parliament with non-elected members of Franco-Mauritian ethnicity (Mannick 1979). In 1959, Hindu parties (Labour and Independent Forward Bloc [IFB]) won 29/40 seats, or 72.5%; Hindus, regardless of party affiliation, won 25/40 seats, or 62.5%.   1963 was "an intense communal campaign", and Labour won only 19/40 seats, with the IFB making inroads in the rural areas and the Creole party (PM, precursor to PMSD) taking away the Creole vote in urban areas (Bowman 1991). The educated Hindu community saw the Labour party's loss of 4 seats as a threat to Hindu dominance (Mannick 1979). The 1963 elections combined with the question of independence led to riots in 1964 (Bowman 1991; Mannick 1979)
[82] Another factor that increased uncertainty in electoral outcome was the large proportion of the voting population made up of youths, around 50% in the early 1970's (Dubey 1997, p. 105).

prospect of Independence became an increasing reality, politics became simultaneously increasingly communalized. The party of the Creoles, *Parti Mauricien* (PM), accused the Hindus of being "invaders and barbarians to be beaten back", engaged in violent protests and even "undressed [Indian] women wearing *sari*" (Dubey 1997, p. 60). In response, the right-wing All Mauritius Hindu Congress (AMHC) was formed, demanding 52% of jobs be reserved for Hindus and advocating Hindu political supremacy (Simmons 1982, p. 160). The leaders of the AMHC were dissatisfied with the passivity of Seewoosagur Ramgoolam, the leader of the more moderate MLP. Discord, however, was not restricted to the Hindus and Creoles; in April 1965, Hindu youths looted Chinese shops in retaliation for Chinese support of the PM (Simmons 1982, p. 161). A month later, riots between Hindus and Creoles broke out in the Trois Boutiques region forcing the British to send in troops to quell the violence (Simmons 1982, p. 162).

These increasing communal tensions hung over the independence negotiations and led to the drawing of boundaries to prevent outright Hindu dominance. The PM immediately saw its chance to create cross-ethnic partnerships. As an ethnic party it could command no more than 30% of the population's vote. Thus, in a bizarre turnabout, the former advocate of "Black Power", Gaëtan Duval, Creole leader of the PM, coined a new slogan: *Hindu mon frere* (Hindu, my brother) (Simmons 1982, p. 174). His mission was to win over "any Indian group or individual for association or collaboration" (Dubey 1997, p. 65). Moreover, he threatened to punish anybody in the party promoting communalism (*Le Mauricien,* 6th December 1965). Though there had been some cross-ethnic voting in previous elections—an earlier carnation of the MLP had been fairly multi-ethnic—Duval was beginning to understand the socio-institutional incentives of the new electoral system. As leader of the PM, he added *Social-Démocrate* to the end of the party's name (now dubbed PMSD), and made the wiping out of inequality central to its party manifesto. Part of that manifesto stated: "We want things to happen in such a way that racial discrimination, religious divisions, classes, favouritism and nepotism become

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[83] Sutton (2007) argues that political rivalry for the leadership of the Hindu community generated communalized political propaganda. This interpretation of history, however, ignores the reasons for the rivalry within the Hindu community, which surrounded the future control of power of the Hindu community. It also ignores the communal propaganda of Creole leaders, especially Duval.

only nightmares of the past" (Mannick 1979, p. 133)[84]. In response, the MLP, in association with a smaller Hindu party (the Independence Forward Bloc [IFB]) convinced the major Muslim party, *Comité d'Action Muselman* (CAM), to enter into an alliance.[85] The MLP had originally modeled itself on the British Labour party, but had increasingly been dominated by a Hindu leadership and symbolically associated with Hindus.[86] However, neither party could be described as truly national at this point[87] (Mannick 1979, p. 126-7). Although PMSD had made some in-roads into both the Hindu and Muslim communities, it was still firmly seen as the party of the "General Population", a British term referring to non-Oriental peoples (Creoles and Franco-Mauritians). Meanwhile, the MLP was becoming increasing communal as the moderate Ramgoolam was forced into an alliance with the two other main Hindu parties (IFB and AMHC).[88] In the end, the MLP-led coalition won the 1967 elections with 54% of the vote compared to PMSD's 43%.

The victory was seen as a Hindu one. Although they had incorporated CAM, this was only a small proportion of the Muslim community, most of which sided with PMSD. Dissatisfied at their loss, Muslims responded to provocations by CAM leaders that aimed at instilling disaffection with the Creole leadership of the PMSD. Muslim-Creole riots ensued, exposing the facade of "national" parties (Simmons 1982, p. 181-5).

Further evidence of the ethnic particularism still ingrained in the parties is seen in the policies adopted by MLP-IFB-CAM alliance after is won the 1967 elections.[89] The MLP introduced tax concessions for Hindu small sugar planters from the Hindu community (Seegobin and Collen 1977), and provided facilities for cultivate potatoes,

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[84] Bowman (1991) argues that Duval "about-face" from the previous election was targeted at disaffected Hindus, but that nevertheless his goal was to "broaden the base of the PM beyond the General Population" (p. 40-41).
[85] A majority of Muslims still sided with the PM in these elections, which the MLP-IFB-CAM alliance won.
[86] In fact, it was founded by a Creole leader, Dr. Maurice Curé (Dubey 1997, p.52). Simmons (1982) writes, in reference to the MLP and PM, that "communal politics were already too well entrenched" and thus the PM was unable to attract Hindus (p. 143)
[87] In 1967, the founder of the MLP, Dr. Curé, left the party (others say he was expelled) partially due to the belief that it had become Hindu-dominated (Mannick 1979, p.126). Mannick also argues that despite its rhetoric, the PMSD remained "mainly, the party of the General Population" (*ibid.,* p. 127).
[88] Bowman (1991) is firm on this point, asserting that the Labour Party had "emerged by independence as the electoral vehicle of the Indo-Mauritians and in particular of the majority Hindu community." (p. 69)
[89] As is common in new nations, the alliance invited PMSD to join it in government, creating a grand coalition. However, "both designed policies to benefit their respective constituencies" (Dubey 1997, p. 98) and PMSD quickly left the coalition.

tomatoes and onions. The government sponsored a cooperative movement for small planters to provide preferential finance and better prices for sugar cane. CAM supporters (mostly in trade and commerce) were awarded 'developmental certificates', which provided tax holidays, export tax exemption and subsidized electricity and water. The government also implemented policies that harmed the Franco-Mauritian sugar barons and their Creole managerial staff by imposing heavy taxes to finance economic development (Dubey 1997, p. 99).

Then a new party burst onto the scene of Mauritian politics: the *Mouvement Militant Mauricien* (MMM). Led by Paul Bérenger, a Franco-Mauritian, and two Hindus D. Virahsawmy and Joneed Jeerooburkhan, the MMM carved out a truly national constituency aiming to "wipe out twenty years of communalism and rebuild Mauritian unity through a socialist programme" (Dubey 1997, p. 101). It put together a team of candidates from every community. In its first test—a by-election in 1970—MMM demonstrated the success of its new constituency. Running Virahsawmy as candidate, the nascent party dealt a crushing blow to the MLP in its rural stronghold, winning 72% of the vote. The party interpreted Mauritian society in terms of class, engaging in industrial action throughout the 1970's (Bowman 1991, p.72).

Many historians and political observers, rightly point out that the choice to run Virahsawmy, and not Bérenger, demonstrate that MMM played the communalist game from the start (e.g. Dubey 1997). What the MMM leaders understood, however, was that ethnicity was a central element of Mauritian society. No class-based ideology alone could eradicate communal attachments. But MMM was clearly multi-ethnic. Both the candidates it fielded and the voter support it won was painted with *every color of the rainbow*.[90] A fact that supports this nationalist label I apply to the MMM is the degree of cross-ethnic voting that took place in the first general election the party competed in, and every election since for that matter. Creoles voted for Hindus, and vice-versa; Chinese for Muslims, and Franco-Mauritians for Creoles. As mentioned above, cross-ethnic voting had occurred in pre-independence elections, but not to this degree.[91] The electorate toed the ethnic line much more even than they did in 1967. The MMM and its

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[90] Mauritians call themselves the *Rainbow Nation*.
[91] Indeed, Simmons argues that Duval lost the 1967 elections because he gambled on "Creoles of Curépipe [voting] for a Hindu", while not having convinced either community that PM was truly multi-ethnic (p.182).

appeal to a national constituency that encompassed every community was a new phenomenon in Mauritius, a phenomenon brought about by the interplay of Mauritian social structure and the new electoral rules.

District	%Hindu	%Islam	%Christian	% won by Hindu Candidates	% won by Muslim Candidates	% won by Christian Candidates	% Cross-ethnic voting
1	0.25	0.17	0.58	0.33	0.09	0.58	0.08
2	0.25	0.50	0.25	0.15	0.46	0.39	0.14
3	0.08	0.75	0.17	0.00	0.88	0.12	0.13
4	0.46	0.16	0.38	0.49	0.17	0.35	0.03
5	0.56	0.15	0.28	0.94	0.03	0.03	0.37
6	0.62	0.11	0.25	1.00	0.00	0.00	0.36
7	0.78	0.13	0.09	0.98	0.02	0.00	0.20
8	0.66	0.16	0.18	0.69	0.30	0.02	0.16
9	0.74	0.10	0.16	0.99	0.00	0.01	0.24
10	0.61	0.16	0.22	0.70	0.29	0.01	0.21
11	0.69	0.11	0.20	0.99	0.00	0.01	0.29
12	0.59	0.13	0.28	0.69	0.01	0.31	0.12
13	0.59	0.22	0.18	0.71	0.29	0.00	0.18
14	0.53	0.07	0.39	0.68	0.14	0.18	0.21
15	0.51	0.29	0.20	0.68	0.19	0.00	0.29
16	0.47	0.19	0.33	0.67	0.00	0.33	0.19
17	0.41	0.10	0.48	0.20	0.09	0.71	0.22
18	0.54	0.12	0.33	0.44	0.11	0.45	0.11
19	0.30	0.15	0.53	0.32	0.13	0.54	0.02
20	0.35	0.12	0.51	0.22	0.00	0.78	0.25
21	0.01	0.01	0.98	0.01	0.00	0.99	0.01
							0.18

Table 4.3 Results of 1976 election, by district and ethnicity of candidate compared to proportions of ethnic group in each district.

To calculate the degree of cross-ethnic voting, I analyze the vote shares of candidates by ethnicity. Table 4.3 shows the district proportion that each ethnic group composed and compares it to the percentage of votes that candidates of respective ethnic groups won. The column on the far right estimates the proportion of the electorate in each district that voted for candidates of a different ethnicity. This figures ranges from .01 in Rodrigues (#21) to 37% in Pamplemousses and Triolet (#5). The average of all districts across Mauritius is 18%. Conceivably, this number could have been higher, and my calculations represent the minimum amount of cross-ethnic voting that could

have occurred. Indeed, since individuals cast three votes at the polls and most historians agree that most individuals voted strictly for their party's entire slate of candidates, this number is almost certainly higher.[92]

The MMM's phenomenal success in the 1976 elections, led other political parties and coalitions to mimic its ethnic pattern of fielding candidates. Over time, all political parties became adept at the science of communal politics under the new electoral rules. Maintaining detailed lists of community sizes in each constituency, solid patterns of the "correct" ethnic distribution of candidates emerged. Today, these differ very little from the first slate of candidates run by the MMM. Table 4.4 gives a detailed breakdown of ethnicity in each electoral district and the ethnicity of candidates from the two main parties or alliances that competed in the eight elections since 1976. Each cell contains one or more combinations of candidate ethnicity; where there is just a single combination, both major alliances fielded the same combination. A third combination refers to the instances when PMSD ran alone and won all three seats, which occurred only in district #17 (Curepipe), the party's stronghold. Where the two parties fielded a different ethnic composition of candidates, two patterns appear in each cell, in which case the first pattern corresponds to the governing party's candidate list. We can see that, over time, the difference in ethnic patterns diminishes between the two main contenders, as evidenced by variation in only one district in the two most recent elections (#19 in 2000 & #20 in 2005). Notice how the ethnic patterns correspond strongly to the ethnic makeup of the district. Thus, in districts ##5-10 & #11, the Hindu rural heartland, both parties field three Hindu candidates, almost without exception in all eight elections. In district #3, where Muslims constitute over 70% of the population, both parties field three Muslim candidates. In district #2, both parties make a token gesture to the Chinese community, the only area it is concentrated enough to affect voting, consistently fielding one Chinese candidate in every election. The urban districts seem the hardest for parties to settle on a fixed pattern, especially districts #19 & #20. Parties fielded a different pattern in these two districts every election.

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[92] The only way to ascertain the degree of cross-ethnic voting is to rely on survey data, of which there is none to the author's knowledge.

In many of these districts, we can determine easily whether cross-ethnic voting is occurring (Hindus voting for MMM or PMSD, and non-Hindus voting for the MLP and MSM). In constituency #2, Muslims are clearly voting for the Chinese candidate, even though they could elect three Muslims since they compose a majority of the population. Hindus do the same for the Creole candidate in constituency #12. Again, they constitute the majority, but because Creoles compose 1/3 of the population, parties have settled on

				1976		1982		1983	
				Gov't	Opp	Gov't	Opp	Gov't	Opp
				MLP/ CAM, PMSD	MMM	MMM/ PSM	MLP/ PMSD	MSM/ MLP	MMM, PMSD
	%H	%M	%C						
1	0.25	0.17	0.58	CHM	**GGH**	GGH	GGH	-	**GGH**
2	0.25	0.50	0.25	CMM	**CHM**	CHM	CHM	CHM	CHM
3	0.08	0.75	0.17	CMM	**MMM**	MMM	MMM	MMM	MMM
4	0.46	0.16	0.38	GHM	**GHH**	GHH	**GGH**	GHH	**GGH**
5	0.56	0.15	0.28	HHH	HHH	HHH	HHH	HHH	HHH
6	0.62	0.11	0.25	HHH	HHH	HHH	HHH	HHH	HHH
7	0.78	0.13	0.09	HHH	HHH	HHH	HHH	HHH	HHH
8	0.66	0.16	0.18	HHM	HHM	HHM	HHM	HHM	HHM
9	0.74	0.10	0.16	HHH	HHH	HHH	HHH	HHH	HHH
10	0.61	0.16	0.22	HHM	HHM	HHM	**HHH**	HHM	HHM
11	0.69	0.11	0.20	HHH	HHH	HHH	HHH	HHH	HHH
12	0.59	0.13	0.28	GHH	GHH	GHH	GHH	GHH	GHH
13	0.59	0.22	0.18	HHM	HHM	HHM	**HHH**	HHH	**HHM**
14	0.53	0.07	0.39	HHH	**GHM**	GHH	**HHH**	GHH	GHH
15	0.51	0.29	0.20	HHM		HHM	**GHH**	HHM@	**GHM**
16	0.47	0.19	0.33	GHH		GHH	GHH	GHH	GHH
17	0.41	0.10	0.48	GH, GGG*	**GHM**	GGH	**GGG**	-	**GGG,** GGG*
18	0.54	0.12	0.33	GHM	**GHH**	GHH	GHH	GHH	GHH
19	0.30	0.15	0.53	GHH	**GHM**	GHM	**GGH**	-	**GHM**
20	0.35	0.12	0.51	GGH, GGG#	GGH	GGH	**GGG**	-	GGH@
21	0.01	0.01	0.98	GG	GG	GG	GG	GG	GG

	1987		1991		1995		2000		2005	
	Gov't	Opp	Gov't	Opp	Gov't	Opp	Gov't	Opp	Gov't	Opp
	MSM/ MLP	MMM, PMSD	MMM/ MSM	MLP/ PMSD	MMM/ MLP	MSM, PMSD	MMM/ MSM	MLP/ PMSD	MLP/ PMSD	MMM/ MSM
1	-	**GGH**	GGG	**GGH**	GGG	GGG	GGG	GGG	GGG	GGG
2	CHM	CHM	CMM	CMM	CMM	**MMM**	CMM @	CMM @	CMM	CMM
3	MMM	MMM	MMM	MMM	MMM	MMM	MMM @	MMM @	MMM @	MMM @
4	GGH	**GHH**	GGH	GGH	GGH	**GHM**	GGH	GGH	GGH @	GGH @
5	HHH	HHH	HHH @	HHH @	HHH	HHH	HHH @	HHH @	HHH	HHH
6	HHH	HHH	HHH	HHH	HHH	HHH	HHH @	HHH @	HHH	HHH
7	HHH	HHH	HHH	HHH	HHH	HHH	HHH @	HHH @	HHH	HHH
8	HHH	**HHM**	HHH	HHH	HHH	HHH	HHH	HHH	HHH @	HHH @
9	HHH	HHH	HHH	HHH	HHH	HHH	HHH	HHH	HHH	HHH
10	HHM	HHM	HHM	**HHH**	HHM	HHM	HHM	HHM	HHM @	HHM @
11	HHH	HHH	HHH @	HHH @	HHH	HHH	HHH @	HHH @	HHH	HHH
12	GHH	GHH	GHH @	GHH @	GHH	GHH	GHH	GHH	GHH	GHH
13	HHH@	**HHM**	HHM	**HHH**	HHM	HHM	HHM	HHM	HHM	HHM
14	GHH@	GHH	GHH	GHH	GHH	GHH	GHH	GHH	GHH @	GHH @
15	GHM @		GHM	GHM	GHM	**HHM**	GHM	GHM	GHM @	GHM @
16	GHH @		GHH	**GGH**	GHH	GHH	GHH	GHH	GHH @	GHH @
17	-	**GGH**	GGH	GGH	GGH	GGH	GGH	GGH	GGH	GGH
18	GHH	**GGH**	GHH	GHH	GHH	**GGH**	GHH	GHH	GHH	GHH
19	-	**GHM**	GGH	**GHM**	GHM	**GGM**	GHM	**GGM**	GHM	GHM
20	-	**GGH@**	GGH	**CGH**	GGH	GGH	GGH	GGH	GGH	**GHH**
21	GG	GG	GG	**GGH**	GG	GG	GG	GG	GG	GG

C=Chinese, G=General Population, H=Hindu, M=Muslim

A combination CHM means that the three candidates were of Chinese, Hindu and Muslim ethnicity respectively

Bolded combinations indicate that the Opposition (Opp) ran a different ethnic combination than the Government (Gov't)

▍ Split ballot, government coalition wins 2 seats

▍ Split ballot, government coalition wins 1 seats

▍ Split ballot, government coalition wins 0 seats

_ PMSD won all three seats with G candidates, # PMSD won two of three seats, @ PMSD won one of three seats_

Table 4.4 Ethnicity of Candidates in each Electoral District fielded by Governing and Opposition Coalitions, 1976-2005

giving them some representation. Remember, the reasoning behind why they do this: no ethnic community can rule by itself, not even the Hindus, so they have to placate groups that constitute around 1/3 of the population any given district, even those where another community has a clear majority.

In eight of the twenty districts (40%), however, no community has a clear majority and must rely on other ethnic groups in order to ensure victory. Since it is a plurality system, technically, the largest group, regardless of its size, could win all three seats. However, there is then a huge incentive for the other communities to work together, field a multi-ethnic slate and win all three seats at the exclusion of the majority community. Party leaders seek to reduce this uncertainty by fielding the right combination of ethnic groups to ensure victory. All parties seem to have settled on a consensus of what the right combination is in each district. The little variation that does occur depends on the particular party alliances that form prior to each election.

To further illustrate the broad, multi-ethnic reach of parties, let us turn to Figures 4.5 – 4.8, which depict the distribution of ethnic groups among electoral districts.[93] Figure 4.5 shows that Hindus are the clear majority (depicted by the darkest red coloring) in ten districts. In an additional four districts, they constitute around one third of the population. Figure 4.6 shows that the General Population (Creoles and Franco-Mauritians) are the majority group in two districts (three if Rodrigues is included) and comes close to forming a majority in just three additional districts. The General Population (GP) forms around one third of the population in another three districts. GP candidates, thus, had stronger incentives to make broad appeals to other ethnic groups than did Hindus. Muslims also had strong incentives to enter alliances with other ethnic groups; they are the majority in just two districts, constituting about one third of the population

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[93] These figures are based on an averaging of Dubey's (1997) data with my own calculations based on the 2000 Census
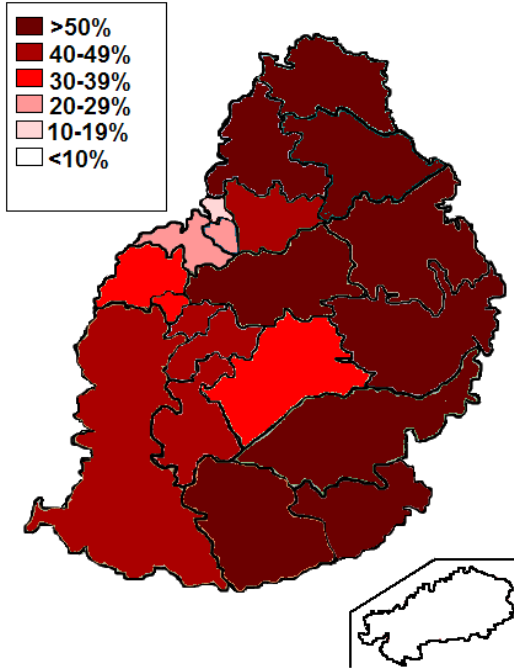
Figure 4.5 % Hindu by District
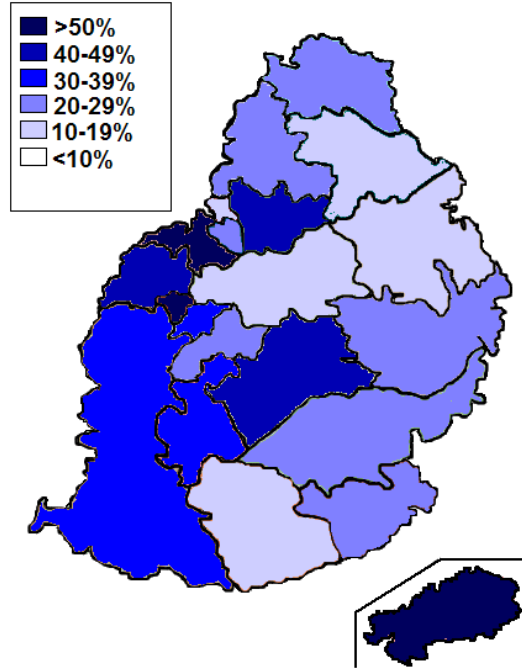
Figure 4.6 % General Population by District
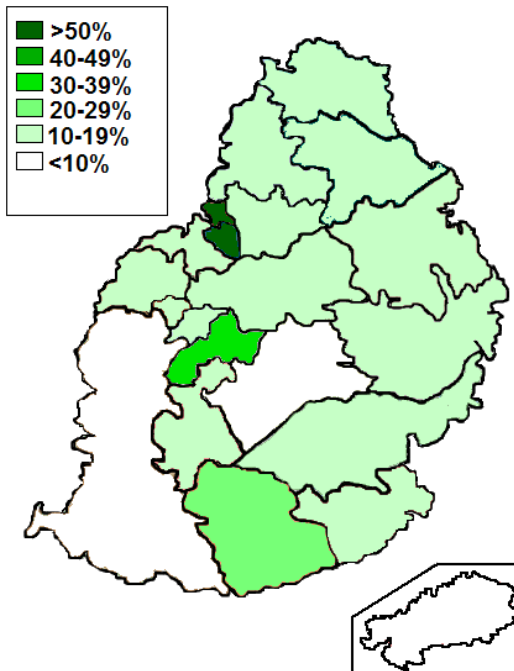
Figure 4.7 % Muslim by District
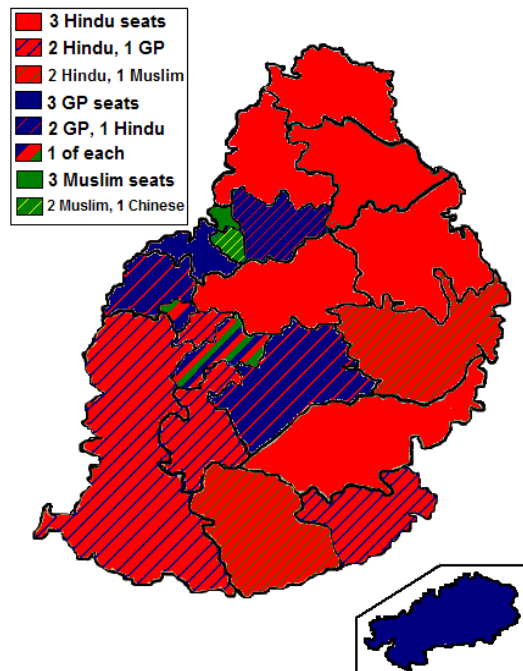
Figure 4.8 Candidate Ethnicity by District

in an additional district. The Chinese are the majority in no district, forming about one third of the population in district number two in Port Louis, which is where they win their single seat. The district boundaries, thus, force all groups to rely on the votes of other ethnic groups.

Comparing Figure 4.8, which shows the most common combination of candidate ethnicity fielded by the major alliances, to Figures 4.5-4.7, we can see that in many districts where there is a clear majority of an ethnic group, political parties field multi-ethnic slates. There are three Hindu-majority districts where either a GP (usually Creole) or Muslim candidate is run in the third seat. In district nineteen, the second of only two majority Creole districts, candidates of three ethnicities are repeatedly fielded indicating that the parties sometimes disregard actual proportions in order to ensure that the overall ethnic distribution of seats is fair.

Party Alliances

The MMM, under the leadership of Bérenger, toned down its Marxist ideology tremendously prior to the 1976 elections and sought to broaden its appeal further.[94] Advocating a racial redistribution of wealth and the democratization of education, the MMM accused the MLP of accentuating ethnic divisions. In response, the MLP, still allied with CAM, began to make efforts to broaden its constituency. Ramgoolam, the current MLP Prime Minister, promised free secondary education for all if he was re-elected, for the first time matching his policies to the party's multi-ethnic slate of candidates.

The result was an extremely close race. The MMM won a slight majority of the popular vote, 39%, compared to MLP-CAM's 38%. PMSD suffered from its increasingly pro-Creole agenda. The PMSD leader, Duval, campaigned on a wage increase and cost of living allowance for workers in the Export Processing Zone (CITE). He attempted to excite his constituency with the prospect of Creole power, pointing to the divisions within the Hindu community. Not only did the PMSD suffer from this narrow

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[94] Following the MMM-led strikes of 1971, the government declared a state of emergency, banned the MMM's newspaper, *Le Militant*, suspended trade unions, and put limits on political party activity. Bérenger gradually realized that the party's appeal was too narrow, and that he needed the support of the bourgeoisie. In disgust, Veerahsawmy's more militant branch broke away and formed the *Movement Militant Mauricien Social Progressive (*MMMSP*)*.

agenda, but the reality was that a huge portion of its Creole base had gone over to the MMM, seeing the MMM's broader agenda as more likely to win power (CITE). MMM's 39% translated into 30 seats, just a whisker short of a majority, compared to the MLP-CAM's 25 seats. The PMSD, which won 16.5% of votes, took its seven votes over to the MLP-CAM alliance, and MMM was denied power.

The MLP had narrowly retained power, but only with the support of the humbled Creole PMSD and Muslim CAM.[95] Ten MLP ministers lost their seats, plus the Deputy Speaker of the Assembly, the Government Chief Whip and three parliamentary secretaries (Mannick 1979, p.149). The MLP were particularly unsuccessful amongst young Hindus and Indian-Mauritians that originate from the Tamil province in India. Despite their alliance with CAM, moreover, most Muslims voted for MMM (Mannick 1979, p.150). Furthermore, only as very small proportion of Creoles voted for the MLP. In response, Ramgoolam appointed James Burty David, a young Creole, as President of the MLP (Mannick 1979, p.157). This harsh lesson encouraged Ramgoolam to broaden the party's appeal, or risk an MMM defeat in the next elections. It had secured only a tiny proportion of the Creole vote, and despite an initial promise from Duval for a MLP-PMSD alliance in the next elections, Ramgoolam understood that his party needed to create a broader appeal independently.

Despite its failure to capture the government, MMM supporters were fired up for the next elections, and the party began to seek for ways to carve away further at the constituencies of both the MLP and the PMSD. The MMM had already secured 2/3 of the 18-21 year old Hindu community (Mannick 1979, p.150), mostly because it was MMM efforts that resulted in the extension of the franchise to this demographic in 1976 (Bowman 1991, p.75).[96] In addition, a majority of former IFB supporters (Hindus), 75% of Tamils, and the majority of Muslims (Mannick 1979, p.150) went over to MMM. The MMM's newspaper, *Le Militant* reported:

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[95] The PMSD leader, Gaëtan Duval, failed to retain his parliamentary seat.
[96] Even though the MLP government, in an attempt to woo the country's youth, passed the law while still in power, prior to the 1976 elections, a decision that ultimately hurt them (Bowman 1991, p.75).

"It is a victory for the unity of Mauritius against communalism. The
MMM's victory is proof of the support it has received from a cross-section
of the Mauritian people" (Mannick 1979, p.151).

Following the 1976 elections, the MLP's leadership was increasingly divided over

how to handle the next elections, which would be take place in 1982. Ramgoolam was

still at the behest of the "old guard", who were being seen as increasingly corrupt. In

1978, the young Harish Boodhoo and his group, the *Contestaires,* openly challenged

Ramgoolam by refusing to vote for three posts in the foreign service. The next year,

Ramgoolam expelled them from the party, calling them the "Grave Diggers of Hindu

unity" (*fossoyeurs de l'unité Hindoue)* (Dubey 1997, 126). Boodhoo formed his own

party, the *Party Socialist Mauricien* (PSM), with whom the shrewd Bérenger, committed

to "a grand fraternity" (Dubey 1997, p. 147), entered into an alliance for the 1982

elections.

The MMM-PSM alliance won the 1982 elections hands down. With 63% of the

popular vote, they nevertheless made a clean sweep of all sixty seats. The MLP only

managed 25% of the vote, while the sorry PMSD had dropped to 8%. The MMM's broad,

national agenda had at last triumphed. As Dubey writes:

"Ethnic, caste, religious and linguistic loyalties, so important in the
previous elections, seemed to have become defunct now in political life"
(Dubey 1997, p. 135).

The alliance with PSM, however, had upset sections of MMM. Hindu MP's led

by Aneeroodh Jugnauth, who was installed as Prime Minister, felt betrayed by Bérenger

offering cabinet posts to MLP defectors that were accused by their own as being

"extreme rightists" (CITE). Within just 9 months of MMM's resounding victory,

Bérenger took twelve of the seventeen ministers into the opposition. New elections were

called and Jugnauth founded his own party: the Mauritian Socialist Movement (MSM).

Boodhoo dissolved PSM and joined MSM, seeing it as the future of Hindu power. MSM

entered an alliance with MLP and PMSD, scraping together a 3.7% vote margin over the

MMM, who ran alone. MMM scored a massive 47% of the vote, but received only 22 of

the 62 seats (35%). This grand coalition of Hindu parties and PMSD[97], dubbed the Alliance, benefited from a weakened MMM whose broad appeal had been thrown into question by the departure of the Jugnauth group. The Alliance differed from previous MLP-led "Hindu" governments in that Jugnauth brought over more support of the minority groups. Moreover, the Hindu-dominant government still relied on PMSD support, making it multi-ethnic in nature.

All four elections since the two Alliance victories in 1983 and 1987 have been between a single Hindu party, MLP or MSM, and a Creole party, mostly the General Population-dominated (based on its support base) MMM. Table 4.4 also shows that various types of pre-electoral alliances have formed in Mauritius, even the 'Alliance of Arch Enemies' (MMM & MLP) in 1995. In the most recent elections, the MLP allied with the much shrunken PMSD and, for the first time, managed to beat out the seemingly indomitable 'Alliance of Militants' (MMM & MSM). Thus, for the most part, despite the multi-ethnic nature of parties (in terms of candidates and voter support), a second level of inter-ethnic cooperation is required in Mauritius, that of the multi-ethnic alliance. The four main parties are still associated with certain ethnic communities in the minds of at least a significant part of the electorate. Specifically, the MLP and MSM are seen as Hindu parties, the PMSD as a Creole party, and the MMM as the Creole-dominated party of minorities.

Ethnicity in the Cabinet

Ethnic balance in the distribution of cabinet seats is also an important element of multi-ethnic cooperation in Mauritius. There are no rules establishing that ethnic proportions need to be maintained, and representation of all groups is the norm. The distribution of cabinet seats reveals that the multi-ethnic candidatures we witness are not empty overtures. Even during the two Hindu alliance governments, around 30% of cabinet seats went to non-Hindus; and although 70% seems to over-represent the Hindu community who compose 52% of the population, Hindus regularly get over 60% of cabinet seats regardless of the coalition. Table 4.5 shows the ethnic composition of

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[97] PMSD ran separately, but did not run in the same districts as MSM/MLP. Both encouraged their followers to vote for the other coalition partners.

cabinets since 1976. The lowest percentage of cabinet seats held by Hindus was in 1982; at 55.56%, this was still 3.5% more than the community's share of the overall population. Moreover, although Hindus tend to get less seats whenever MMM is in power, the MMM/MSM alliance in 1991 still assigned 64% of seats to Hindu MP's.

Year	1976	1982	1983	1987	1991	1995	2000	2005
Government Coalition	MLP/CAM, PMSD	MMM/ PSM	MSM/ MLP, PMSD	MSM/ MLP, PMSD	MMM/ MSM	MLP/M MM	MMM/ MSM	MLP/ PMSD
Opposition	MMM	MLP, PMSD	MMM	MMM	MLP, PMSD	MSM, PMSD	MLP, PMSD	MMM/ MSM
Total Hindu	14	10	13	13	16	13	16	16
Creole	4	3	4	4	4	4	4	3
Franco-Mauritian	1	1	1	1	2	1	1	0
Muslim	0	4	1	0	2	4	3	2
Chinese	1	0	0	0	1	1	1	1
Total	**20**	**18**	**19**	**18**	**25**	**23**	**25**	**22**
% Hindu	*70.00%*	*55.56%*	*68.42%*	*72.22%*	*64.00%*	*56.52%*	*64.00%*	*72.73%*

Table 4.5 The Ethnic Composition of Mauritian Cabinets (1976-2005)
Source: Mauritius Electoral Commission; Ragodoo (1998)

Summary: Peeling Back the Layers of National Constituencies in Mauritius

In sum, party strategies in Mauritius are clearly to cater to broad, national constituencies. A prominent leader of the MSM explained it as follows. In order to win an election in Mauritius, parties must follow certain rules:

1. **Espouse a broad, national ideology**

Parties must be void of ethnic appellations and rhetoric. Unity and broad, multi-ethnic Mauritian-ness must be espoused. For example, MLP's 2000 campaign slogan was "Let us Move Together for a Better Country." Parties must also present broad, national policies that are never seen to target a specific ethnic group.

2. **Field a slate of multi-ethnic candidates**

Candidate lists must conform to the ethnic composition of each district, as well as

consider certain national social structure features, such as the geographic concentration of Chinese and geographic dispersion of Muslims.

3.   Enter a multi-ethnic alliance

Despite spouting multi-ethnic rhetoric, the four major parties in Mauritius are associated with an ethnic group. Forming a multi-ethnic alliance thus seems to be a common, but not necessary rule, since an MLP-MSM alliance won two elections in 1983 and 1987. Any and all possible alliances among the largest parties have been tried since 1976.

4.   Form a multi-ethnic cabinet

Parties' candidate list must not just be window dressing. Leaders from all ethnic groups must be incorporated into the party and awarded meaningful cabinet posts. However, Hindus are favored in the distribution of seats, most likely to compensate for the mal-apportionment inherent in the district boundaries.

5.   The Prime Minister must be Hindu

This requirement may be thawing as the MMM/MSM alliance split their term in 2000-2005 between Jugnauth (Hindu) and Bérenger (Franco-Mauritian).

Recent developments in the 2005 elections further support the development of Mauritian parties into non-ethnic bodies. For the first time since 1976, an alliance between MLP and PMSD won the elections. This win, however, was not achieved through dominance of the Hindu electorate. Rather, the increasing support of Muslims for the MLP evidences the increasingly broad appeal of the MLP.[98] A rough estimate is that by 2000, the MLP were attracting 1/3 of the Muslim vote (up to 1995, 80% had voted with MMM), while in 2005 they managed to attract 1/2 of the Muslim vote.[99] The MLP's broader individual appeal, in coalition with the smaller, Creole PMSD is what achieved the previously unthinkable feat of beating the Alliance of Militants (MMM/MSM).

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[98] Personal interview with MLP leader, August 2008.
[99] Personal interview with MSM leader, July 2008.

4.7 Alternate Explanations to Broad, National Constituencies in Mauritius: The Best Loser System

The Best Loser System (BLS) is a somewhat unique feature of the Mauritian party system, originally designed to guarantee representation of minorities in Mauritius. Indeed, the BLS was largely instituted as a compromise to communal rolls, which the Muslims, being the most geographically dispersed, pressed for in the pre-Independence constitutional discussions (Simmons 1979; Dubey 1997). Up to an additional eight legislators are elected, the first four to correct community disproportionality, and the second four to restore initial party balance. Community proportions are based on the 1972 census and include four categories: Hindus, Muslims, Chinese, and the General Population, which includes Franco-Mauritians and Creoles. The seats go to the four candidates with the highest vote percentage in their district and are assigned to the most under-represented community,[100] re-calculated after each extra seat is assigned. If necessary, up to four more seats can be assigned in the second round aimed at restoring party balance while taking community into consideration. The number of seats allotted to the second largest party in the first round is awarded to the largest party, providing it has candidates of the appropriate community. If all seats are still not allotted, preference goes to the most successful party that has not yet received any of the BLS seats; then, to the second most successful party not yet receiving a seat, and so on and so forth.

A possible alternate explanation, then, is that the BLS gives seat-maximizing parties the incentive to field candidates of different ethnicities in order to capture the additional seats. No previous author on Mauritius, however, has made this argument, and in the descriptions of party strategies there is never a mention of parties fielding candidates in the hope of winning a BLS seat. Indeed, in the 1995 elections when the MLP-MMM alliance swept every single seat in parliament, the opposing MSM-PMSD alliance was not able to win a seat even under the BLS. The BLS, moreover, can never overturn the balance of party seats in the legislature due to the four restorative seats.

Srebnik (1999, 2000) argues that the BLS promotes consociationalism because ethnic groups are guaranteed some share of power. His use of Lijphart's term, however,

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[100] The exact formula is as follows: $Q = (Community\ Size) / (\#\ Seats\ Obtained + 1)$. The community with the highest quotient (Q) is assigned the seat.

alludes to post-electoral grand coalitions typical in the Western European countries that Lijphart studies. There is no mention by Srebnik that consociationalism comes in the form of multi-ethnic, national parties. Indeed, most accounts of the BLS system lament that it encourages communalism in Mauritian politics that would otherwise disappear (Nave 1998; Blood 1957; Mathur 1991). Blood (1957, p. 359), who was governor of Mauritius from 1949 to 1953, writes concerning the BLS: "Heaven forbid that it should become permanent: that would be a confession of failure, an acknowledgement of a racially divided state which cannot find a national unifying principle."

An example of how parties have used the BLS to promote communalism was reported by the Economist Intelligence Unit following the 1995 elections: "One of the newer political parties, the Islamist Hizbullah Party, has exploited the voting system by appealing to a very narrow section of the population and has managed to secure a "best loser" seat" (Annual Report: Mauritius 1995). While I am unconvinced that communalism would disappear, abolishing the BLS may provide parties more freedom to sometimes violate ethnic group proportions if candidate quality so merits it, and thus, strengthen party nationalization.

4.7 Social Structure in Thailand

In contrast to Mauritius, ethnicity has very low societal and electoral salience in Thailand. The theory predicts that in such societies, the main obstacles to the development of broad, national parties are narrow, district-demands induced by small, majoritarian districts. Before analyzing the party system and the nature of *effective* constituencies in Thailand, I provide a brief description of Thailand's social structure.

Ethnicity and Religion

Thailand is commonly regarded as ethnically homogenous. Indeed, apart from small Malay, Cambodian, Burmese, Vietnamese and Hill Tribe populations along the border, which collectively compose no more than 6% of the population, Thailand appears, for many intents and purposes, ethnically homogenous. The Chinese and Sino-Thais

(Thai speakers of Chinese descent) make up 8% of the population, but are highly assimilated into Thai language, culture and even the Thai variant of Buddhism (Keyes 1997). There are regional linguistic groups that closely resemble ethnic groups, and perhaps have the potential for a future increase in salience, but this divide's salience has been mitigated by Thailand's strong nationalist movement over the past century (Reynolds 1991). Renowned anthropologist Charles Keyes argues that they have all but become regional identities (*ibid* 1997). Nevertheless, it is important to note that Thai political entrepreneurs have attempted to resurrect this cleavage at times[101], and there is evidence of the growth in the regional nature of parties in Thailand over time prior to the 1997 constitution.

The religious cleavage in Thailand is also very homogenous, with 95% of the country ascribing to Buddhism. Islam is the second largest religion, but while nearly all Malays identify with Islam there are also significant numbers of Thai Muslims, especially in the Southern region. Indeed, region reinforces religion to an extent, with the majority of Muslims living in the South. However, the majority of Southerners are still Buddhist and the cross-cutting of ethnicity and religion has mitigated the potential religious divide. Thai Muslims are depicted in Figure 2.1 by a lower-case "m". Living side-by-side Thai Buddhists, several authors nevertheless describe a Southern culture that transcends religion (Askew 2006; Reynolds 1991, 2002). This regional identity, however, is more diluted in the three southern-most provinces that are home to the Muslims of Malay descent. Nevertheless, notable proportions of Thai Buddhists (18-28%) and a few Thai Muslims (2-4%) also inhabit these provinces, and the recent insurgency that has plagued these three provinces is more a clash between a small group of Malay Muslims and the government apparatus than an ethno-religious conflict with Thai Buddhists.

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[101] The Democrat party has long been strongly associated with the Southern region. See Askew (2006) and Suwat (1996). In the mid 1990's, Chavalit Yongchaiyudh attempted to make the New Aspiration Party the party of the Northeast (Pasuk and Baker 2002).
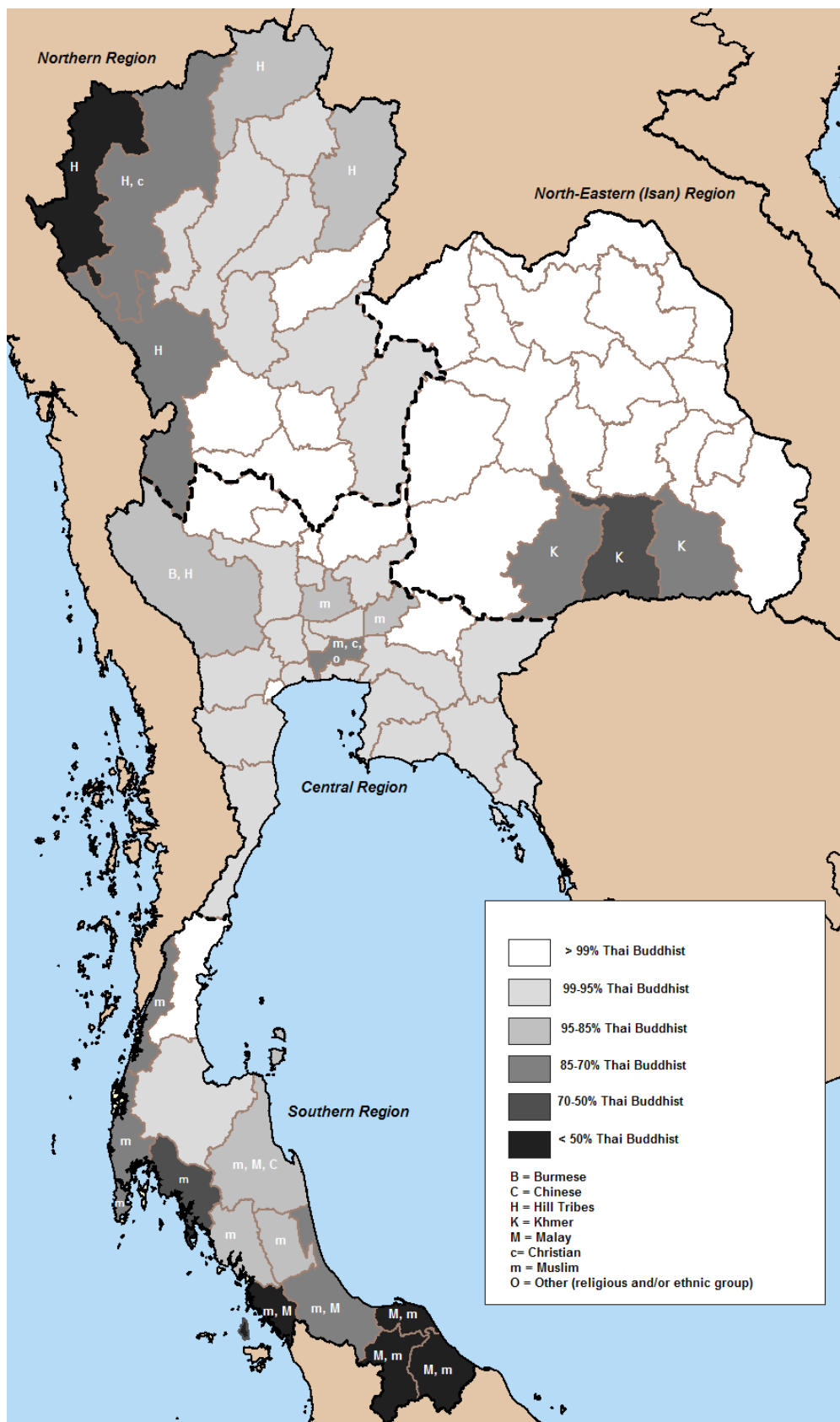
Figure 4.9 Map of Ethnic Groups in Thailand

Socio-economic class and Geographic Concentration of Ethnic Groups

Thailand also has weak ethnic and religious components to wealth distribution, even if one views regional ethnic identities as fully developed ethnic groups. Indeed, class tends to cross-cut both religion and ethnicity, i.e. there are significant proportions of upper, middle and lower classes among all the main ethnic and religious groups. If ethno-regional groups were included, the Isaan of the Northeast would have a good claim as the poorest group, but because Thailand is still heavily rural, there are large proportions of all ethno-regional groups (*khon meuang* of the Northeast, the Central Thai, the Southern Thai) that remain poor, and the Malays are equally as poor in the aggregate (Selway 2007). In short, ethnicity is simply not as salient in Thailand as in Mauritius.

4.8 The Effective Constituency and Party Nationalization in Thailand

In the period 1979-1997, the Thai parliament (*saphaphuthaenratsadhorn*) was composed of 300-400 seats (the number gradually increased over time in sync with Thailand's population) in districts that ranged in magnitude from 1-3. These small districts meant that politicians concentrated on garnering the vote of local populations. Moreover, in districts with magnitude of 2 or 3, the success of one candidate was entirely independent from (technically at least) his/her co-partisan(s); thus, individual candidates had strong incentives to cultivate a personal vote, with methods ranging from personality and constituency service, to votebuying, intimidation and other extra-legal activities . Thus, there was nothing in the electoral rules that encouraged the cultivation of broad constituencies beyond one's district, let alone to the entire nation. This was the perfect environment for strong local patrons, characteristic of developing countries, who had no incentives to sustain strong parties, only to loot the state coffers for as much as they could while in office.[102] As some of these politicians began to invest in long-term political careers, forming parties became of increasing worth to them in order to capture cabinet

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[102] Arguably, patron-client relations in Thailand prevented the establishment of strong parties. Hicken (2002) writes how the weak incentive to capture the premiership in Thailand led to a lack of cross-district coordination. Ockey (1994) and others have well documented how Thai MPs formed parties with the goal of capturing a cabinet seat simply to control the resources of that ministry to the benefit of their constituency

seats and the control of a ministry's purse strings. However, these coalitions changed from election to election and even regional and sub-regional parties failed to develop permanently.

We saw in the case of Mauritius, how ethnic headcounting united politicians and electorates across various districts. However, ethnicity is not electorally salient in Thailand since Thai Buddhists compose 85% of the population, and the second largest ethnic group, the Chinese, are highly assimilated into the Thai culture. Thus, most districts in Thailand during this era were ethnically and religiously homogenous. A few districts near the borders of Burma and Cambodia may have larger percentages of minority ethnic groups, but compared to the 350+/- seats available, they are insignificant. Moreover, ethnic Thais and Chinese still compete as the economic and political elite in these regions especially since citizenship of non-Thais has been an ambiguous issue (Huguet and Punpuing 2005; Winichakul 1994, 2000; Unger 1998). The deep South of Thailand is not too different in this regard, although ethnic Malays are a larger part of the elite and regularly win seats (McCargo 2009). The electoral competition amongst elites was not ethnic in nature, however.

There is no good data available on the ethnic compositions of actual electoral districts, but rough assessments are useful. Assuming most of these districts were three-seat, a minority group would have to constitute roughly 1/3 of the population to stand a chance of winning a seat. According to the 2000 Census, provinces with minority populations that large only number 7 (or less than 10% of all provinces). An additional five provinces have minority percentages in the mid 20s and an extra seven (19 in total) have minority percentages over 10%. Of course, actual distribution within electoral districts may mean that groups with as little as 10% in the overall province may constitute 1/3 of a given electoral district.

For example, in the Northeast, Si Sa Ket is 26.2%, Surin 47.2%, and Buri Ram 27.6% Khmer. Between 9-10 MPs were elected in these provinces, meaning 3 districts electing 3 members or 2 electing 3 and 2 electing 2. It is conceivable, then that if the Khmer were concentrated in one of these districts they might capture a seat, even all three (or both). However, the Khmer tend to be economically and politically marginalized and mobilization on ethnic terms has not taken place. The same is true for the Hill Tribes in

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the North, who constitute, at their highest, 63% in Mae Hong Son province. The Hill Tribes are even less likely to contend for political power than the Khmer, however, not only due to their low economic status, but also due to their diversity—Hill Tribe being simply a collective categorization of numerous Hill-dwelling tribes. There is perhaps the potential for this in the future, but generally the electoral saliency of ethnicity and religion has been non-existent.

In the South, however, it is not uncommon for Thai Muslims in the Southern region and Malay Muslims in the three Southern-most provinces (Yala, Narathiwat, and Pattani) to capture a seat. Again, it should be emphasized that electoral competition still tends not to be between religious or ethnic groups; 18-28% of these three provinces are Thai Buddhists with an additional 2-4% Thai Muslims, and ethnic Thais often win a seat in the three most southern provinces. Even in the majority-Malay provinces where ethnic parties have the largest potential of success, total seats constitute only about 2% of all seats in the House, hardly making an impact on policymaking. As such, candidates tend to seek out and win seats as candidates within larger, mainstream parties.

In general, then, nearly all Thais go to the polls with no strong ethnic or religious political pressures or incentives. While some parties and political entrepreneurs have tried to make region more salient, this has only taken off in the South. However, when Southern Thais go to the polls they are still choosing among ethnic Thais from the South. Thus, the Democrat Party's ties to the South are not based on any kind of inter-regional conflict per se, and the Democrat Party's desire to win seats all over the country (especially in Bangkok) has stopped it from ever declaring at the national level that they are the party of the South.

With this lack of ethnic or religious conflict in the past, and indeed a general trend of assimilation into the Thai culture by immigrants, politics in this period was confined mostly to the local level (Pasuk and Baker 2002; Ockey 1994). Influential public officials, wealthy businessmen, chiefs and even godfathers (*jao por*) battled it out at the local level (McVey 2000). The successful candidates had to have a combination of largesse in both a financial and social sense. This largesse was often won or increased by connecting oneself to larger political networks – provincial governors, extremely wealthy businessmen. As these networks increased, the faction might become large enough to

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challenge for a cabinet seat. Factions joining factions would then aim for the more financially lucrative portfolios, with the Interior Ministry being the most sought-after (Ockey 1994). The next step up—to be the largest party in parliament and capture the position of Prime Minister—did not have strong appeal to these factions. As Hicken (2008) argues, the Prime Minister was more of a "first among equals".

These political networks and factions were constantly changing as shrewd Thai politicians constantly re-evaluated their opportunities with rival factions and parties. Parties rose and fell in power as they shrunk or grew in size. MPs would frequently defect to new parties. Parties would be dissolved as a new combination of factions would challenge for a cabinet seats, seats, or the Prime Ministership. Party formation, then, was very bottom-up in the sense that there were no representatives of nation-wide social groups manipulating party labels or organizations. Accordingly, Thai parties were notoriously void of ideology (Ockey 1994; Nelson 1998; Hicken 2001; Arghiros 2001).

1976	1982	1983	1987	1991	1995	2000	2005	Average
0.48	0.00	0.10	0.24	0.14	0.00	0.29	0.33	0.20

Table 4.6 Percentage of District Returns Split between Parties in Mauritius, 1976-2005
Source: Mauritius Electoral Commission, Author's own calculations

1986	1988	1992a	1992b	1995	1996	Average
0.57	0.77	0.62	0.65	0.65	0.52	0.63

Table 4.7 Percentage of District Returns Split between Parties in Thailand, 1986-1996
Source: Hicken (2008)

At the local level, competition was fierce amongst local notables. Vote buying was rampant and violence was all too common (Anderson 1990). With three seats (on average) in a district up for grabs, candidates campaigned on their personal merits. There was no party allegiance, and local notables from different parties sometimes campaigned unofficially on the same slate (Arghiros 2001). There was little incentive to help another candidate running under the same label, and factions aimed at capturing a cabinet seat

were often thrown together post-election (Ockey 1994; Pasuk and Baker 2002). Pre-electoral coalitions were almost futile as political fortunes could change so rapidly. Thus, although Thai voters could vote for three candidates from the same party if they so chose, they had very little incentive to do so. Between 1986-1997, 63% of districts, on average, split seats between more than one party (see Table 4.7). In comparison, between 1976-2005, only 20% of districts returned split ballots in Mauritius (see Table 4.6). Furthermore, Hicken (2007) shows that voters had more incentive to split their vote due to the gains to be had from vote buying (i.e. consistently voting for the same party would make an individual ineligible for payments from another party).

		Average Ratio between 1 and 2	Average Ratio between 1 and 3	Average Ratio between 2 and 3
Democrat Party	1992	4.1 : 1	6.1 : 1	1.8 : 1
	1995	7.9 : 1	8.6 : 1	1.5 : 1
	1996	6.0 : 1	8.9 : 1	2.5 : 1
Chart Thai	1992	14.2 : 1	25.1 : 1	4.8 : 1
Chart Thai	1995	15.6 : 1	18.9 : 1	4.7 : 1
NAP	1996	8.6 : 1	11.1 : 1	4.0 : 1

Table 4.8 Vote Differentials in Thailand, 1992-6
Source: Hicken (2008)

A more precise indicator of the degree a candidate's vote depended on that of his co-partisan is the vote differential between candidates of the same party. In Thailand, restricting our analysis to only the largest parties in each election, the first-placed candidate on a party's slate received up to fifteen times more votes than the second-placed candidate and up to twenty-five times more than the third-placed candidate (see Table 4.8). Even for the most disciplined party, the Democrat Party, the first-placed candidate still received four times more votes than the second-placed candidate and six times more than the third-placed candidate. In contrast, Table 4.9 shows that for the least disciplined party in Mauritius, PMSD, the first-placed candidate average no more than 1.5 times more votes than the second-placed candidate and 1.9 times more than the third-placed candidate. For most parties and alliances, all three candidates received a similar

share. Indeed, over the eight elections between 1976-2005, the average vote differential between all any two candidates of the same party was just 1.15: 1.

		Average Ratio Between 1 and 2	Average Ratio Between 1 and 3	Average Ratio Between 2 and 3
MLP	1976[a]	1.08 : 1	1.15 : 1	1.08 : 1
	1982[b]	1.13 : 1	1.20 : 1	1.20 : 1
MMM	1976	1.05 : 1	1.09 : 1	1.03 : 1
	1983	1.03 : 1	1.05 : 1	1.05 : 1
	1987	1.03 : 1	1.06 : 1	1.06 : 1
PMSD	1976	1.13 : 1	1.26 : 1	1.10 : 1
	1982	1.24 : 1	1.51 : 1	1.51 : 1
	1983[c]	1.02 : 1	1.05 : 1	1.05 : 1
	1987[c]	1.03 : 1	1.07 : 1	1.07 : 1
	1995[d]	1.44 : 1	1.89 : 1	1.89 : 1
MSM	1995[e]	1.21 : 1	1.48 : 1	1.48 : 1
MLP/MSM	1983	1.01 : 1	1.03 : 1	1.03 : 1
	1987	1.03 : 1	1.06 : 1	1.06 : 1
MMM/MSM	1982	1.03 : 1	1.06 : 1	1.06 : 1
	1991	1.04 : 1	1.08 : 1	1.08 : 1
	2000	1.11 : 1	1.21 : 1	1.21 : 1
	2005	1.08 : 1	1.14 : 1	1.14 : 1
MLP/PMSD	1991	1.08 : 1	1.14 : 1	1.14 : 1
	2000[f]	1.15 : 1	1.31 : 1	1.31 : 1
	2005[f]	1.08 : 1	1.15 : 1	1.15 : 1
MLP/MMM	1995	1.07 : 1	1.13 : 1	1.13 : 1

Table 4.9 Vote Differentials in Mauritius, 1976-2005
Source: Mauritius Election Commission, Author's own calculations
[a] MLP ran as the Independence Party in alliance with the small Comité d'Action Musulman (CAM)
[b] MLP ran as L'Alliance Nationale along with some small parties
[c] PMSD and MLP did not run candidates in the same district, and were essentially a pre-electoral alliance, hence the small vote differentials in these two elections
[d] PMSD ran as Parti Gaëtan Duval in these elections
[e] MSM ran with a small, breakaway faction of the MMM, known as RMM
[f] PMSD split into two factions in these elections. The major faction, known as PMXD ran with MLP

In sum, the combination of small-magnitude, majoritarian districts with low electoral salience of ethnicity in the 1979-1997 period in Thailand provided weak incentives for the creation of broad-based constituencies and the development of national parties.

Class, Region and Party in Thailand

Class was the only other national-level cleavage of salience in Thailand at the start of this period, but conservative forces in Thailand had completely eliminated the Left by the early 1980s. Indeed, if it were not for this extreme reaction to the open politics of the 1970s, a traditional Left-Right class continuum may have emerged in Thailand (Pasuk and Baker 2002). Thus, class could have been a strong source of cross-district coordination. Sadly, natural limitations prevent an experiment of this nature! We will see, however, in the next chapter, that with the new constitution in 1997, class did become a strong source of cross-district coordination.

At the factional level and sometimes at the party level (in the case of the South), region did become a source of cross-district coordination (Askew 2006; Suwat 1996). More than being a case of regional identity, however, were the kinship and business ties that had spread across a certain geographical space (Ockey 1994). Outside of the South, the Chart Thai party tended to be composed of MPs from the Central region (Nelson 1998); the New Aspiration Party tended to be composed of MPs from the Northeast (Pasuk and Baker 2002). However, there were many MPs from other regions (especially Bangkok) within these parties also. New Aspiration contained plenty of MPs from the Central region. The Democrats, likewise, had MPs from all regions. It cannot be said, then, that Thai parties were based on regional identity during this period (Ockey 1994; Pasuk and Baker 2000; Hicken 2009). As with class, after the 1997 constitutional changes, national-level cleavages became more important, and there is evidence of stronger regional voting patterns in the 2001 and 2005 elections.

4.9 Conclusion

I began this section asking what explains the difference in health and education outcomes we observe in Thailand and Mauritius. I spent this chapter demonstrating how the same set of electoral rules operating in two societies with very different social structures led to very different levels of party nationalization. In the chapter that follows, I show how the breadth of constituencies to which parties cater is directly related to the allocation breadth of health and education goods in the same countries. In Thailand, politicians cater to small proportions of the population within single electoral districts with little interest in even the success of co-partisans within the same district, let alone the party more generally. Parties are mostly temporary labels thrown together at election times to represent a group of politicians interested at most in capturing a cabinet seat. Party switching is common and party loyalty is neither valued nor punished as many parties last no longer than a single election. Needless to say, parties are un-programmatic in nature, and national health and education outcomes were never the focus of campaigning.

	Thailand	Mauritius
Ethno-religious cross-cuttingness	High	Low
Ethno-geographic cross-cuttingness	Moderate	Moderate
Ethno-income cross-cuttingness	High	Moderate

Table 4.10 Comparing Social Structure in Thailand and Mauritius

In contrast, politicians in Mauritius have strong incentives to cater to the nation more broadly. Although personal credit is still important, politicians from the same party consistently work together to win all three votes within a district's. Moreover, politicians actively promote the party label, and benefit directly from it as the majority of voters

support the entire slate of candidates from their party of choice. And despite the low party loyalty by voters, and to an extent by politicians, parties are much stronger and enduring in Mauritius than in Thailand, the four major parties having been around since the first post-independence election in 1976. Thus, given the same set of electoral rules as Thailand, a very different set of constituency-forming incentives emerged in Mauritius. At both the district level and national level, small districts and majoritarian forces encourage Mauritian politicians to forge national constituencies from a hodgepodge of social groups. For majoritarianism to lead to an effectively national constituency, two conditions must be met. First, ethnicity must be sufficiently salient, which I gauge by ethno-religious and ethno-income cross-cuttingness. Second, boundaries must be drawn around ethnic groups in such a way as to A/. make candidates rely on the votes of other ethnic groups to win seats, and B/. make any potential ethnic party rely on an alliance with other parties to form a government. This boundary-drawing exercise is facilitated by Mauritius' moderate level of ethno-geographic cross-cuttingness. In Thailand, ethnicity is neither salient electorally, as indicated by its low level of ethnic fractionalization, nor even more generally in society, as evidenced by a high level of ethno-religious and ethno-income cross-cuttingness (See Table 2.6).

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Chapter 5: Constituency Breadth and Allocation Breadth in Mauritius and pre-1997 Thailand

"Even when an economy is poor, major health improvements can be achieved through using the available resources in socially productive ways"

Amartya Sen

"The solution to the many medical problems [is] not to be found in research laboratories but in parliaments . . . not . . . at the operating table, but at the cabinet table"

Janet Hatcher Roberts[103]

5.1 Introduction

In the previous chapter, I traced the development of constituency breadth in Mauritius and Thailand as a product of the socio-institutional landscape. Specifically, I showed how small, majoritarian districts in Mauritius induced cross-ethnic voting, multi-ethnic alliances, and other conventions of inter-ethnic compromise. In contrast, the same small, majoritarian districts in Thailand resulted in very localized, fleeting political coalitions. In this chapter, I show how constituency breadth, in turn, impacted the breadth of resource allocation in Thailand and Mauritius. The narrow constituencies in Thailand led to the narrow targeting of health and education resources to individual electoral districts. In comparison to Mauritius, the Thai health and education systems were inefficient, pork-ridden and prone to corruption on a grand scale. The broad, national constituencies in Mauritius, in contrast, resulted in free and universal systems, maximizing access to these health and education opportunities. Although the Mauritius system was not free of inefficiencies, pork, or corruption, these problems were minimal compared to Thailand.

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[103] Canadian health systems specialist addressing audience of Thai public health experts and officials at the Health Systems Reform seminar, Bangkok, Thailand, February 2nd, 1996.

To evaluate the breadth of health policy, I first establish a standard for evaluation. I rely on what Cox and McCubbins refer to as the *public-regardedness* of policy, which term entails policy that is "[re]distributive in intent . . . aim[s] to provide public goods, improve[s] allocative efficiency and . . . promote[s] the general welfare" (Cox and McCubbins 2001, p.28). Thus, I examine equality of access across several broad, social cleavages, namely ethnic, geographic and socio-economic to capture redistributive intent and general welfare. The standard, which of course not even advanced industrial countries reach, is complete equality of access to health care amongst all these cross-sections of society. Access consists of several elements: availability of insurance, distribution of healthcare facilities and personnel, and out-of-pocket (private) expenses. Moreover, the quality of care should be similar across the same sub-strata of society. Accordingly, qualifications of medical personnel, standards of drugs and medicines, and access to necessary medical equipment should be similar.

In addition to access, I evaluate the efficiency of resource use in the overall system. Not only do I examine spending patterns, but also try to assess cost-effective policies that aim to prevent health problems at the individual level. As such, I define broad allocation as dedicating a higher proportion of the health budget to preventative care, health promotion, and actual treatment of diseases. Spending on infrastructure should take up an appropriate percentage of the budget, the danger almost always being overspending rather than insufficient commitment of funds. Attention should be given to doctor shortages, with broader allocation leading to an increase in the number of doctors and other medical personnel per capita, and an effective policy for a long-term solution in place. Finally, corruption should occur less, and be tackled more effectively when it does occur, thus maximizing public funds.

In contrast, a narrow allocation of resources includes *fiscal pork*, such as the favoring of projects, such as hospitals, health clinics, or medical schools, in the constituencies of one's party/faction or allies; *morselized public goods,* which entails taking a broad policy and making "the means of producing and distributing these goods . . . politically determined, [which] may not be the least costly means of providing these goods to the society", for example a policy of free medications could be broken up

into contracts for the actual drugs, packaging, distribution, etc. granted to individuals within one's electoral district (Cox and McCubbins 2001, p.47-48); *rents* "referring to any of a wide array of subsidies, special tax provisions, regulatory exceptions, and so forth extracted from government" (ibid., p.48); to outright *corruption*. In short, narrow allocation of resources is distributive in intent, aims to provide private goods, at the cost of allocative efficiency and the general welfare.

5.2 The Provision of Health in Thailand, 1979-1997

Efficiency of Health Spending

I begin my account in 1979, when elected politicians came on to the policy scene for the first time in Thailand, bar a couple of spurts in the early 1970's.[104] Although many scholars view this period as semi-democratic, political parties had full control over the social welfare ministries, including the Ministry of Public Health (MoPH). Each ministry was overseen by an individual political party or faction, and an informal rule developed making it strictly *faux pas* to interfere with the affairs of a coalition partner's ministry, even for the Prime Minister. Hicken (2004) calls this the "pork-policy compromise".[105] Such ministerial independence enabled the full dynamics of constituency breadth to take sway in the health ministry throughout the 1980's.

Politicians in charge of the MoPH became extremely adept at fiscal pork, breaking up the budget into increasingly smaller projects that could be targeted at the local constituencies of politicians. Construction building composed the core of Thai particularism, fulfilling three of Franzese's (2002) four "ables": target*able*, manipul*able*,

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[104] The Prime Minister, up until 1988, was not elected, and, moreover, was head of the Thai armed forces. Nevertheless, several scholars have described the necessity of the Prime Minister to build support in the legislature. Indeed, the first Prime Minister met a swift dismissal after aggravating the main political parties with dissatisfactory ministerial appointments. The second Prime Minister, General Prem Tinsulanondha, was supremely skilled at coalition building in the fractured legislature, which was especially necessary for him to retain his position, since one or another faction of the army was constantly trying to displace him.

[105] See also Pasuk and Baker (2002). The Pork-Policy Compromise was a bargain struck by the military-appointed Prem and the democratically-elected political parties concerning ministerial allocation. Prem and his technocrats maintained control over the line ministries (Finance, Defense) leaving the sectoral ministries (Education, Health, Interior, etc.) for the elected politicians with very little interference.

pal*able* and attribut*able*. First, hospitals were highly targetable. Not only could politicians target their provinces with the grandiose provincial hospitals that were popping up in the 1980's, but with the small hospital program, they could now target specific districts, which could be used to shore up support in a candidate's weak areas. At an even more local level (*tambon*), politicians created health centers (*satarni anamai)* – small, local establishments often staffed only by health volunteers and/or nurses (Choekwiwatn 2002). Health centers and district hospitals increased politicians' ability to target the health ministry's budget, even though they were highly under-utilized (Krongkaew 1982). Construction contracts were also highly manipulable, allowing politicians to award contracts to political allies (*hua khanaen,* local chiefs or men of influence). And while the projects might take years to complete (low palpability), they were highly attributable to candidates. Politicians endeavored to tie their name to such projects to increase attributability. No one was more adept at this than the leader of the Chart Thai party, Banharn Silpa-archa. After pouring almost 700 million baht into upgrading the Yommarat hospital in Suphanburi, he made sure to name one of the patient wards after himself (Nishizaki 2006).

Region/Year	Bangkok	Central	North	South	Northeast	Total
1979	14,585	17,481	9,917	8,515	10,776	61,274
1981	17,661	20,246	12,503	8,521	13,437	72,368
1983	18,486	21,954	12,751	10,258	14,989	78,438
1985	19,376	22,018	12,650	10,334	15,294	80,438
1987	24,376	24,628	14,252	11,153	15,887	87,554
1989	20,337	24,156	15,520	11,394	16,575	87,982
1991	21,704	25,519	16,181	11,888	18,560	93,852
1993	24,351	27,658	17,502	12,936	18,719	101,166
1995	25,236	34,248	20,943	14,449	23,541	118,417
1997	27,327	37,386	25,874	16,016	25,802	132,405
%Δ	87%	114%	161%	88%	139%	116%

Table 5.1 Number of Beds by Region, 1979-1997
Source: Health in Thailand 1995-6

Table 5.1 shows the rapid increase in the number of beds throughout this period. Notably, the number of beds in rural hospitals more than doubled. The first half of the

period (1979-1989) still sees a bias toward Bangkok, which is explainable by the Primeministership, Finance Ministry and Budget Bureau still being occupied by the Bangkok-biased military. However, in the second half of the period, after which the PM was fully elected, this imbalance is adjusted for.

Tables 5.2 and 5.3 show that the nature of health-facilities construction in Thailand took a heavy local orientation in the form of small-bed hospitals and health centers. Almost 1,000 10-bed hospitals were built in this era, the 1987 figure almost triple the 1979. Likewise, the number of 30-bed hospitals almost doubled. The rate of hospital-building, in sum, over this short 8-year period was phenomenal. However, savvy Thai politicians did not stop at 10-bed hospitals in their quest for more targeted distribution of health resources. Table 5.3 shows that the number of health centers increased heavily over this period, especially outside the Central region. Numbers of health centers in the North, South and Northeast all virtually doubled. While I am sure the building of small hospitals can be justified by appeals to politicians' unquestionable concern with equity, it is no coincidence that such a phenomenon could have been easily predicted based on my theory. Mongkol na Songkhla, the permanent secretary for health in 2001, stated frankly: "Buildings were built unnecessarily in hospitals in almost every province. This is because the expansion of hospitals was based on the desire of members of parliament and ministers, and not public demand" (The Nation, 2nd May 2001). To get an idea of the oversupply of hospitals, one estimate put the excess number of beds in Bangkok at over 8,000. Indeed, Dr. Boon Vanasin suggested that the 8,000 surplus was enough for the next ten years (The Nation, 17th July 2001).

Size of Public Hospital	1979	1981	1983	1985	1987	1989	1991	1993	1995	1996	1997
10-bed	211	215	263	325	376	377	375	344	317	368	219
30-bed	72	83	97	109	131	131	140	224	260	302	335
60-bed	8	15	28	40	43	46	51	65	87	97	103
90-bed				6	7	7	10	12	17	21	37
120-bed								5	7	7	9
Total	291	313	388	480	557	561	576	650	688	795	703

Table 5.2 Number of Hospitals in Thailand by size, 1979-1987
Source: Thailand Health Profile 2003-4

Region/Year	1979	1987	1996	1997
Central	1,219	1,635	2377	2471
North	914	1,616	1965	2151
South	688	1,252	1400	1488
Northeast	1,277	2,489	3100	3367
Total	4,088	6,992	8842	9477

Table 5.3 Number of Health Centers by Region, 1979-1987
Source: Health in Thailand 1995-6

Thai politicians in the pre-1997 era were so adept at narrow resource allocation that they even managed to morselize the "Free Medical Services for the Poor" (FMSP) program. The reason politicians shied away from broad, redistributive programs in the first place was that it is hard for them to take the credit (low attributability). However, the FMSP program had been initiated in the 1970's and its implementation was highly anticipated. Thus, when the program was launched in March 1980, it took just a month to exhaust the funds, with the rapid distribution of seven million free medical cards (Bangkok Post, 27th and 29th April 1981). And it was this method of distribution – tangible, physical health cards – that allowed elected politicians to claim credit for this wildly popular program. While politicians were not officially responsible for distributing the cards, members of their political clientele were. Local project officials, usually chiefs and *kamnans*, were responsible for screening and distribution, but had a tendency to "issue the cards to their "well-to-do" relatives and friends" (Bangkok Post, 17th September 1984)[106] Via these political networks, based heavily on vertical lines of patronage, Thai MPs were able to take credit for the program.

Indeed, few genuinely poor had taken advantage of the free services by 1984, while thousands of "not-so-poor" had gotten their hands on the health cards. The director general of the Local Administration Department was often forced to order local provincial authorities to withdraw cards from such families (Bangkok Post. 27th February, 1982).[107] Several evaluations estimated that up to 45% of card holders exceeded the

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[106] See Arghiros (2001) and Nelson (1998) for detailed accounts describing how chiefs and *kamnans* constitute MP's political clientele.
[107] See also Supachutikul (1996).

means test limits, while up to 72% of the poor did not acquire the cards (Suksawat 1989; Tumkosit 1996).
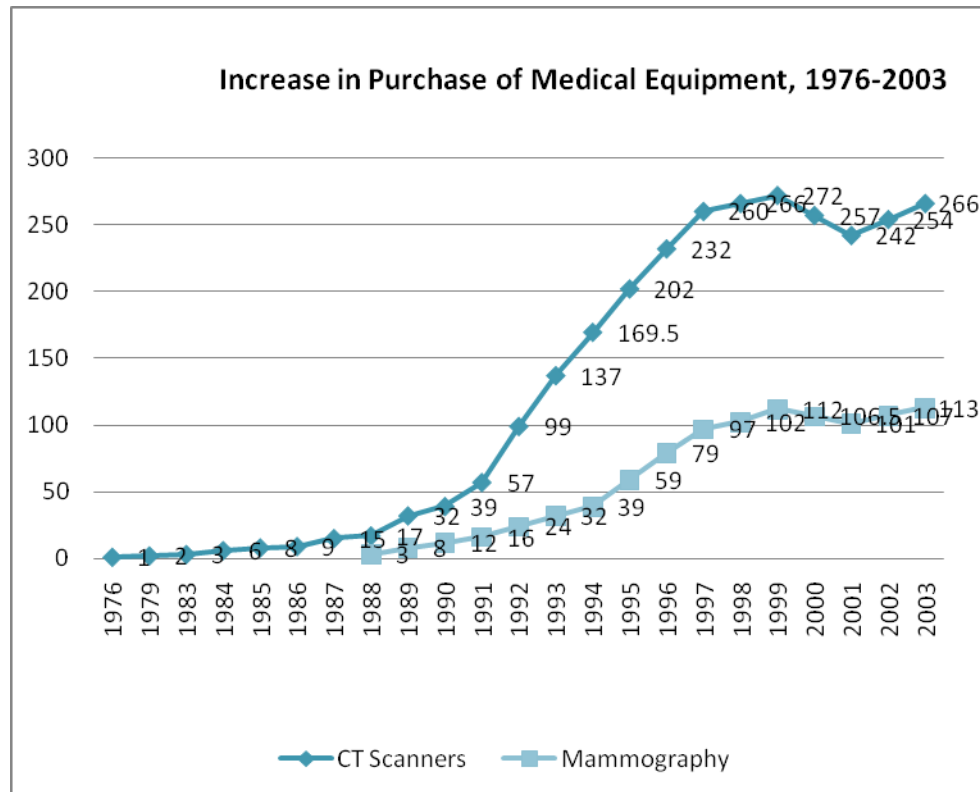
Figure 5.1 Increase in Purchase of Medical Equipment, 1976-2003
Source: Jindawatthana (2002-3)

Expensive medical equipment also became a political tool, which similar to construction, was highly targetable, manipulable and attributable. It also had the added incentive of being palpable, since the goods could be delivered immediately, whereas construction took a few years to complete. For example, Bangkok ranked third in the world for the number of computerized temographic (CT) scanners per million after Japan (29.2) and US (14.7), with 10 scanners per million. A 1995 study revealed that Thailand had 3.5 computerized scanners per million population, compared to 2.3 in the UK - the birthplace of this technology. In Bangkok alone there are 15.7 scanners for every million people (The Nation. 17th August, 1997). Figure 3.1 shows the tremendous growth in the

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purchase of CT scanners and mammography machines in this period. From just 15 in 1988, the number of CT scanners grew to 260 just ten years later. Mammography machines also increased from just 3 in 1988 to 97 in 1998. Such extravagant purchasing was made possible by a health budget that not only doubled in size (in terms of % of the national budget), but also by a doubling of the investment portion of the health budget.

Corruption

Another form of particularism came in a less savory, outright illegal fashion. In Thailand all departments and ministries have a reputation for how lucrative they are in terms of corruption (Bowornwathana 2001). In the top tier, or A-grade departments, falls the Food and Drug Administration (FDA)—part of the MoPH, which is responsible for licensing drugs and various medical equipment. One official referred to the FDA and the Communicable Diseases Control Department (CDC), which has an annual budget of well over one billion baht as "attractive places for those looking for personal gains" (Bangkok Post. 12th September 1993). The ousted head of the FDA who made this statement claimed that the then-Minister of Public Health (Boonphan Kaewattana) had requested financial support from him.

It is thus no surprise that the most infamous corruption case in the MoPH involved the FDA. In 1998, then Minister of Public Health, Rakkiat Sukthana, ordered nearly all state-run hospitals in the upper Northeast to buy overpriced medical supplies (up to 30 times their value), even though community hospitals were overflowing with reserves. Some hospitals were forced to stock up on overpriced drugs enough for use for as long as 19 years, even though many of them would expire in three years (NCCC Probe 1998). Corruption took many other forms in Thailand during this period. From the construction of a 200-million-baht hospital building for which 360 million baht was paid, to the impractical purchase of 348 Volvo vans for use as ambulances by remote community hospitals. Very few corruption cases were actually discovered in this period, however, let alone followed up on, and of the few that make it to the investigation stage

even fewer are successful in prosecuting top officials.[108] As such, the 1998 Medical Supplies scandal involving Minister Rakkiat was unprecedented; no other corruption case has been this successful (or unsuccessful depending on where you stand!).

Fiscal Pork: How lucrative was the MoPH?

In 1988, the position of Prime Minister ceased to be appointed, and with Prem gone, the informal pork-policy compromise disappeared. Elected prime ministers now had control over the Ministry of Finance and the Budget Bureau. As such, pork demands could be targeted with much greater ease and accuracy than before to the constituencies of the governing coalition. Those ministries that provided the most lucrative opportunities for pork were awarded with larger budgets accordingly. Table 5.4 shows how Defense's share dropped by almost 3% of the National Budget following Prem's absence. Indeed, defense's share continued to drop throughout the 1990's while the budgets of the sectoral ministries, such as Education and Health, increased. Within a decade, defense commanded just 17% of the national budget, having commanded proportions in the low-mid 20's since at least the 1960's. The Health Ministry, specifically, saw an increase of 1% of the budget almost immediately – its highest ever proportion to that point. By the end of this period, Health's share of the budget had increased to almost 8% mainly because politicians found it easier to manipulate pork and engage in corruption.[109]

	1987	1990	1993	1996	1997
Security	23.7	20.8	20.4	17.6	17
Education	18.1	17.9	19.6	20.4	22.4
Health	4.4	5.4	6.5	7.6	7.8

Table 5.4 Budget Proportions by Allocation Type, 1987-1997
Source: Thailand Bureau of the Budget

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[108] Personal interviews with MoPH officials found that corruption was rampant in this period, generally recognized, mostly accepted, but rarely probed or publicized except when disputes arose between internal factions of the ministry.
[109] Based on anonymous interview with MoPH officials.

The "porkiness" of the Public Health budget can further be seen in the percentages devoted to salaries, operating costs, and investment, the latter of which basically entailed construction. Table 5 shows how the investment portion of the MOPH budget increased from 11.3% in 1987 to 38.7% by 1997 – the highest proportion of the budget *ever* dedicated to investment.[110] The effects of this extortionate investment can be seen in the increase in the number of beds (Table 5.1) and health centers (Table 5.3). A total of 2485 health centers were built in the ten-year period ending in 1997, a little less than in the previous period. However, the number of beds added in this same period (1988-1997) is almost double the number of beds added in the previous period (1979-1988)!

	Salaries	Operating	Investment
1979	38.1	39.3	22.6
1980	41.9	36.6	21.5
1981	46.2	32.7	21.1
1982	42.2	35.6	22.1
1983	44.8	36.5	18.7
1984	45	38	17
1985	45.3	38.3	16.3
1986	49	37.8	13.3
1987	52.6	36.1	11.3
1988	52.2	36.2	11.7
1989	50.6	35.3	14.2
1990	47.9	40.0	18.2
1991	47	32.5	20.5
1992	43.2	34.4	22.4
1993	44.2	33.2	23.6
1994	40.1	32.4	27.5
1995	37.1	31.5	31.4
1996	37.4	29.3	33.5
1997	33.5	27.8	38.7

Table 5.5 MOPH Budget, by allocation category
Source: Thailand Health Profile, 2003-4

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[110] Note that the cost of supplies is included under the "Operating" category, so the "Investment" column quite accurately reflects the amount spent on construction.

Equality of Access

We have seen that Thai politicians went to great efforts to construct health service facilities in their individual electoral districts. One benefit of this building frenzy is that physical access was potentially increased all over the country. However, there were still major obstacles to equitable access across geographic regions and socio-economic groups. Lack of insurance prevented many poor families from receiving healthcare. Although the FMSP was designed for the ultra poor, a large proportion of the population who did not meet the means tests for participation in this program remained uninsured. As Table 5.6 shows, in 1991, 66.5% of the population had no health insurance. This number dropped somewhat by 1996, but still exceeded half of the population (54.5%).[111]

Year	1991	1996
Voluntary Health Card	1.4	15.3
Civil Servants and State Enterprise Employees	15.3	10.2
Social Security and Worker's Compensation Fund		5.6
Pop w/o insurance	66.5	54.5
Universal Coverage		
Medical Welfare for Poor	12.7	12.6
Private	3.1	0.8
Other	0.9	1

Table 5.6 Percentage of People with Health Security
Source: Reports on Health and Welfare Surveys, 1991, 1996, NSO

Individuals with no health insurance either went without, or relied on out-of-pocket expenses. Table 5.7 shows these out-of-pocket health expenses as a percentage of total income by income decile. Individuals in the first (lowest) income decile spent, on average, 7.1% of their household income on health expenses. The second lowest income decile spent an average of 4.7% on health expenses. This percent decreases as we move up income deciles, such that the richest decile in Thailand spent an average of 1.2% of their household income on health expenditures. The discrepancy score in the far right

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[111] This drop due to the introduction of the social security health insurance program and an expansion of the voluntary health card program.

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column shows that the discrepancy between the poorest and richest deciles in Thailand fell in the 1990's, but the poor still paid five times as much (in percentage terms) as the rich. This comparison does not even begin to take into consideration what types of services these individuals purchased. However, it is likely that the poor were spending money on basic curative services, such as doctor's visits and pharmaceuticals, as opposed to preventative or luxury services that the rich were more likely to invest in. The poor, therefore, had disproportionate access to healthcare facilities.

	1	2	3	4	5	6	7	8	9	10	Discrepancy
1992	8.2	4.8	3.7	3.7	2.9	2.6	2.5	2.00	1.6	1.3	6.4
1994	7.6	4.8	4.5	3.6	3.3	3.0	2.5	2.3	2.0	1.3	6
1996	5.5	4.6	3.3	3.2	2.9	2.5	2.4	2.00	1.6	1.1	5

Table 5.7 Percentage of Households' Health Expenditures, by Income Decile, 1992-6
("Discrepancy" is between groups 1 and 10)
Source: Tangcharoensathien (2004)

Quality of service is also an important component of equality of access. Although I was unable to obtain precise figures on spending by hospital, or even by region in Thailand, the issue of doctor distribution illustrates the regional inequality of access in Thailand. Bangkok, the capital and home to 9% of the population, is the main beneficiary of this geographic bias: in the early 1990's, approximately 75% of all doctors, both public and private, were situated there (Roemer 1993). Within the public sector, the inequality in doctor distribution is still pronounced. Although the ratio has decreased since the inception of democracy, Bangkok still has over four times as many doctors as the next best region (Central) and ten times as many doctors as the worst region (Northeast), see the "BKK:NE" row in Table 5.8. Indicative of this Bangkok bias is the amusing account of Than To district in the Southern Region: In 1989, a brand-new hospital was unveiled, much to the pride of the district's MP's to be sure. Unfortunately, the Ministry neglected to send any doctors there! (Bangkok Post. 28th October, 1989). During the same period, the discrepancy in the number of beds per population between Bangkok and the Northeast was only 1:4.1, showing that while physical buildings

brought Thai politicians' electoral benefits, improvement in the distribution of doctors did not.

Year	1979	1981	1983	1985	1987	1989	1991	1993	1995
Bangkok	1,210	1,360	1,404	1,512	1,418	1,063	958	900	999
Central	11,652	9,654	7,179	7,010	6,663	6,306	5,805	5,224	4,042
South	15,641	13,148	10,061	7,922	7,705	5,920	6,079	5,737	5,510
North	13,112	12,364	10,879	13,269	8,297	5,331	6,317	6,243	5,824
Northeast	25,716	23,492	19,675	15,709	12,694	11,762	10,970	10,848	10,805
BKK:NE	1:21	1:17	1:14	1:10	1:9	1:11	1:11	1:12	1:11

Table 5.8 Population per doctor, 1979-1995
Source: Current Status of Health Development, Health in Thailand 1992-3, Thailand Health profile 2003-4

Health Outcomes

The 1993 WHO Health Services Report verified the meager advances made in over a decade of elected politicians' influence on health policy. Thailand's outlay on health care in 1982 was 3.56 per cent of gross domestic product (GDP). By 1992 it had risen to 6.38 per cent, and was projected to reach 8.10 per cent of GDP by the year 2000. Compared to its neighbors, Thailand was spending an extortionate amount. In 1993, the proportion of GDP spent on health in Indonesia and the Philippines was 2 per cent, in Malaysia it was 3 per cent, while Sri Lanka outlaid 3.7 per cent. Likewise, per capita expenditures in 1993 were US$73 per person in Thailand compared to $12 in Indonesia, $14 in the Philippines, $18 in Sri Lanka and $67 in Malaysia. Despite the higher health spending, the "return" on the "investment" was lower than that of neighboring countries. Thai infant mortality stood at 38 per 1000 live-births, while the rates in Sri Lanka were 18 and Malaysia 15. Thais also had a shorter life span, an estimated 68 years, compared to 70.5 for Malaysians and 71.3 years for Sri Lankans.

This report is usefully compared to comments by the WHO chief in 1984 lauding Thailand's health projects and heralding the country for being on the verge of *Health For All by 2000*. Indeed, in that same year another WHO official said that Thailand had the

best primary health care program of all WHO aid recipients—so much so, that Thailand was the only country that was permitted to make its own decisions on what to do with WHO funding and was granted $12million in WHO commitments over the succeeding six years (Bangkok Post, July 9th and November 2nd 1984). Had the WHO known what changes Thailand's newly appointed politicians would bring in the allocation of health resources in Thailand it would have thought twice about granting Thai policymakers complete autonomy over their funding!

5.3 The Provision of Health in Mauritius, 1976-2008

The quote by Amartya Sen at the beginning of this chapter is nowhere better demonstrated than in Mauritius. Mauritius has consistently led the continent of Africa in health outcomes, and is the paragon for other African countries at regional health conferences (Mauritius Times, April 7th-13th 2000). Having made the "epidemiological transition" (morbidity and mortality profile closely resemble those of more developed nations), Mauritius boasts of being a "Third World country . . . [with] services comparable to the best in the world" (Mauritius Times, May 26th – June 1st 1995 & January 15th -21st 1993). Indeed, the United Nations has ranked them in the "high human development "category in its annual development report for the past three years (UNDP 2006).

Equality of Access

With a GDP per capita of $3875 in 1968, Mauritius inherited a low-middle income economy from the British. This wealth, however, was heavily concentrated in the hands of the Franco-Mauritian sugar barons. Access to the health sector reflected this inequality. In 1953, a report to advise the government on Health Insurance by the Mauritius Legislative Council found that "almost all doctors live either in Port Louis or in Upper or Lower Plaines Wilhems," inhabited mostly by the General Population (Franco-Mauritians and Creoles). In terms of government service, there was a Medical Department set up by the British, but its functions were extremely limited. Most of the

population was privy to a "lamentable condition" of healthcare (Rankine 1944). By Independence, conditions had improved only minimally as the economy oscillated in the 1960's. Chandrakanta (2000) writes that the system inherited from the colonial period was of poor quality.

 After the 1967 elections, the MLP gradually increased expenditure on social welfare. In response to the national policy platform of the MMM and following MLP's narrow victory , Prime Minister Ramgoolum allocated the huge sum of Rs 368 million to education, health and other social expenditures (Chandrakanta 2000). This represented over 12% of total government expenditures, staying above 10% until the next elections, which the MLP nevertheless lost. Table 5.9 shows the total increases of education and health spending as a percentage of the central government budget from 1978-2007. We can see that the proportion of the budget dedicated to health has stayed fairly constant, at around 8-9% of total expenditures. In contrast, Thailand spent just 4-5% in the 1980's and 6-7% in the 1990's (see Table 5.4). Although we are less concerned with the actual amount spent on health as we are the efficiency of those expenditures, Mauritius' high fiscal commitment to health was indicative of its politicians' broad allocation policy.

	1978/79	1984/85	1988/89	1994/95	1998/99	2004/05	2006/07
Defense	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Education	0.17	0.14	0.15	0.17	0.16	0.16	0.15
Health	0.12	0.08	0.09	0.08	0.08	0.09	0.09

Table 5.9 Budget Proportions by Allocation Type, 1987-1997
Source: Mauritius Ministry of Finance and Economic Empowerment

On the eve of the 1976 elections, the MLP promised that, if elected, it would extend free education to the secondary level. It also committed to extend the paltry, though free, health services provided by the British (Khedoo 1998). A primary health care policy was initiated in 1978, and services began to be delivered on a regional basis with the set up of Community Health Centers (CHC's) and Area Health Center's (AHC's). The AHC/CHC network was set up around a hospital in each of the five regions set up by the Ministry of Health and Quality of Life (MHQL) aimed at combating the unequal distribution of health infrastructure. The goal was to ensure access to health facilities for all Mauritians

within three miles of their residence.[112] Ministers Ghurburrun and Gorburdhun built furiously throughout the early 1980's, constructing over 47 CHC's that resulted in "health at everyone's doorstep" (Mauritius Times, December 4th-10th 1987). In addition, doctors and other health personnel began to be more evenly spread across the island. Within a decade, rural Hindu areas were accessing similar services as the Port Louis megalopolis and Plaines Wilhem region.
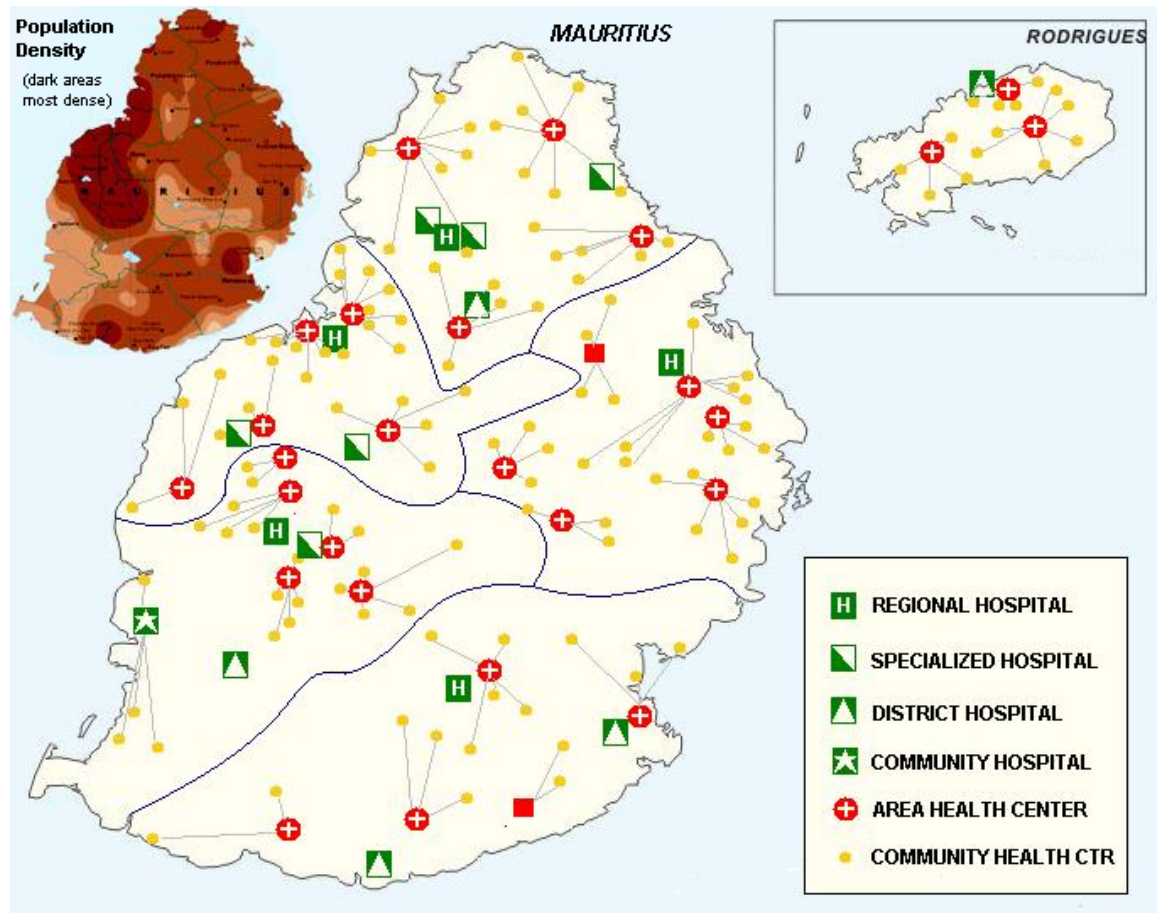
Figure 5.2 Distribution of Health Infrastructure in Mauritius, 2005
Sources: Mauritian Ministry of Health; Best Country Reports[113]

Health access is also highly equal amongst socio-economic groups in Mauritius. Table 5.10 shows that out-of-pocket expenditures (as a percentage of household income)

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[112] Interview with Ajoy Nandogchan of the World Health Organization in Port Louis, Mauritius, July 2008.
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on health services are fairly equal amongst quintile income groups. The poorest quintile spend half as much out-of pocket as the same quintile did in Thailand in 1996 (compare to Table 5.7).

	1st	2nd	3rd	4th	5th
Income spent on health	117	134	212	335	553
% of income	2.6	1.9	2.4	2.9	2.9

Table 5.10 Monthly household consumption expenditure on health and quintile group of household income, 2001/02
Source: Mauritius Household Budget Survey Annual Report

In addition to similar out-of-pocket expenses on health, the five quintile groups rate the quality of health services similarly. Table 5.11 shows that over 90% of Mauritians rate personnel skills, medical equipment and quality/availability of drugs as adequate or better. In addition, perceived discrimination upon receiving services is not correlated with socio-economic status. Table 5.12 further shows that coverage for a variety of healthcare needs is not correlated with socio-economic status. Although coverage for oral health problems is clearly better for the richer quintiles, the same is not true for treatment received for injuries (road or other), where poorer individuals were more likely to say that they received treatment either on site or at health facility within 1 hour of the accident. Finally, there seems to be no correlation between income and treatment of cataracts.

	% of patients rating characteristics of health care provider as adequate			% perceiving discrimination
	Skills	*Equipment*	*Drugs*	
Q1	97	97.2	93.5	5.9
Q2	93	94.1	90.9	12.3
Q3	96.4	95.1	92.2	7.7
Q4	95.5	96.4	92.2	7.4
Q5	93.4	94.7	93.7	11.6

Table 5.11 Patient assessed characteristics of inpatient health care services
Source: World Health Survey 2003

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Need and coverage: oral health conditions, injuries and cataracts

Quintile Group	Oral Health Problems		Injury from road accidents		Other injury		Cataracts	
	% Need	% Coverage	% Need	% Coverage	% Need	% Coverage	% Need	% Coverage
Q1	22.4	54.6	1.6	72.6	8.7	57.4	22.4	62
Q2	23.6	53.5	1.5	58.6	7.3	47.8	21.7	51.9
Q3	24	60.6	1.1	69.3	4.7	47.7	17.8	62.8
Q4	23.2	72	1.7	29.5	4.9	39.7	12.5	75.5
Q5	24.2	73.4	1.9	27.5	5.2	40	20.8	63.3

**Table 5.12 Patient assessed characteristics of need vs. coverage for
various health problems and injuries**
Source: World Health Survey 2003

Efficiency of Health Spending

Unlike Thailand, Mauritius' commitment to infrastructure spending was not built on particularistic demands, but based on an efficient, economically-sensible plan controlled by technocrats at the health ministry. Other services were likewise coordinated. Specialist wings were attached to given hospitals in order to prevent the unnecessary doubling-up of equipment and personnel. Patients were referred to these units only after seeing a doctor from their local hospital first. Likewise, CT scanners and other specialist technology, as well as blood testing facilities were shared among the regional hospitals.[114]

As with Thailand, I analyze the percent of the Mauritius Ministry of Health's annual budget dedicated to construction. Figure 5.13 divides the MHQL budget into recurrent and capital expenditures, the latter of which is mostly comprised of construction and is thus a good indicator of how porky the budget allocation is. We see that, bar a few years at the beginning of Mauritius' democratic experience, the capital proportion of the budget rarely exceeds 10%. The average for the thirty-year period (1976-2006) is 11%. Comparing this to Thailand's average of 21% over the 1979-1997 period gives a good indication of the more limited scope of pork in Mauritius.

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[114] Interview with Parmanand Balach, Administrator of Cardiac Wing of SSR Hospital

	Recurrent (Salaries & Operating)	Capital (Investment)
1976/77	0.85	0.15
1978/79	0.70	0.30
1980/81	0.79	0.21
1984/85	0.96	0.04
1986/87	0.96	0.04
1988/89	0.90	0.10
1990/91	0.88	0.12
1992/93	0.84	0.16
1994/95	0.94	0.06
1996/97	0.93	0.07
1998/99	0.95	0.05
2000/01	0.96	0.04
2002/03	0.89	0.11
2004/05	0.91	0.09
2006/07	0.96	0.04
	0.89	**0.11**

Table 5.13 Annual Budget of MHQL
Source: MHQL Annual Report

Numerous interviews with doctors, MHQL officials and politicians revealed that the extent of fiscal pork in Mauritius was limited to such things as the extension of visitation hours in a politician's electoral district, or the favorable stocking of pharmacies. A major reason for such limited pork (and corruption) was the establishment of an independent central procurement board to review expensive purchases, a body that never emerged in Thailand.[115] In addition, the Unified Revenue Board and Pharmacy Board ensured central purchasing of medical equipment and drugs, thus reducing purchase-related scandals frequent in Thailand.[116] In a 1987 story in the Mauritius Times on ministerial overspending, the health and education ministries were notably absent.

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[115] Interview with Dr. Ramesh Munbodh, Ministry of Health Liaison Officer, World Health Organization, July 2008.
[116] The Pharmacy Board, however, is often accused of favoring multi-national pharmaceutical companies from the United States and Europe. While the Pharmacy Board points to the poor quality of certain generic drugs from countries such as Pakistan (Mauritius Times, April 12th -18th 1991, there have been calls to reduce costs by purchasing generic drugs, which tend to be of higher quality, from India (Mauritius Times, August 11th – 17th 1995).

Indeed, most accusations of fiscal inefficiency in Mauritius focused on the undersupply of equipment and drugs and the quality of facilities.[117]

Political parties relied on the success of the health ministry much for electoral success and health ministers carved out a reputation for their managerial capabilities, and for seeking out the counsel of their administrators and technocrats in the MHQL (Mauritius Times, July 1st – 7th 1989). For example, Jocelyn Seenyen (appointed Health Minister in 1982) began the practice of descending unannounced to check on hospitals. His discovery that doctors were overprescribing the pain medication Panadol[118] led to the coining of the term *Docteurs Panadol* to refer to inefficiencies in the MHQL. Kadress Pillay (appointed in 1995) was hailed for his re-organization of the ministry.[119] His successor, Kishore Deerpalsingh, took on the powerful doctor lobby in an effort to stamp out the problem of parallel private practices by MHQL doctors (Mauritius Times, October 9th–15th, 1998). This is not to say that all Mauritius' ministers have been examples of managerial dynamism, but in the same period of time in Thailand, only one minister is renowned for such innovation and energy.[120]

Corruption

Mauritius has long enjoyed high international recognition for being relatively corrupt-free, despite some infamous cases in the 1990's that slightly damaged its reputation. Corruption revelations are rare, and official prosecutions even more rare. And although this scarcity could easily be the result of adept political cover-up and/or

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[117] Mauritius Times: September 16th–22nd 1983. *Medical Services What the poor ailing masses expect from newly appointed health minister?*; September 25th–October 1st 1987. *Development should be fashioned to the needs of the people*; November 13th 1987. *Why the dispensary building is in such an awful state?*; 22nd–28th November 1991. *Attention: M. of Health: 50% of hospital equipment not usable or out of order*; May 1st–7th 1992. *Wanted: A rare bird to bring about a semblance of order in Min of Health*; October 7th–13th 1994. *The Ministry of Health: What a Shame!*; January 9th–15th 1998. *Get rid of those "brebis galeuses" (black sheep) from our hospitals.* An exception was the report of the MHQL purchasing an excess of psychotropic drugs (Mauritius Times April 5th -11th, 1991).

[118] Commonly referred to by its brand-name *Tylenol* in the United States and *Paracetamol* in the United Kingdom.

[119] Among his list of achievements are the renovation of buildings and wards; the setting up of a bio-medical engineering unit; the repair of x-ray machines; the reorganization of the casualty at Jeetoo hospital; the establishment of a Medical Ombudsman for medical negligence; the creation of the Institute of Health Sciences for on-going training; and the transfer of authority for certification to the Medical Council (Mauritius Times, October 18th-24th 1996).

[120] I refer to Arthit Ourairat. See Selway (2007).

elite collusion, compared to Thailand, the evidence is that Mauritius' problems were miniscule. Alleged corruption was mostly in a form that plagues all democracies: the unwelcome relationship between business and politics. Awarding of contracts to politically-favored enterprises was the most frequent charge. In return, profits were skimmed using bloated pricing schemes, and/or businesses provided funding to political parties (Mauritius Times, May 28th – June 3rd 1999). There were accusations that wholesale importers were charging a margin of 1000% of the imported value of certain drugs (Mauritius Times, February 7th-13th 1997). Transfers within the MHQL were also allegedly influenced as corruption networks aimed to maximize their profits (Mauritius Times, 22nd –28th September 1995). Some accused elected politicians of being in cahoots with bureaucratic agents, colluding to form corruption networks, which only flare up when spoils not shared evenly (Mauritius Times, June 4th–10th May 1999). However, the uncovering of the "Medical Mafia" by Minister Deerpalsingh in 1998 was not met with such rebuttals of political in-fighting (Mauritius Times October 9th–15th 1998). Indeed, Deerpalsingh accused doctors and bureaucrats of being involved in this scandal, which involved not only a monopoly of health sector purchases, but "an orchestrated sabotage especially of expensive equipment" (Mauritius Times, August 6th –12th 1999).

Health Outcomes

Mauritius outperforms Thailand on just about every health outcome, in both absolute terms and percentage increase terms. In terms of % of GDP spent on health, the two countries have been fairly similar. We can see, however, that Mauritius has spent its finances more efficiently. Both countries compare in terms of births attended by skilled health personnel and immunization rates. One policy area we can see that Mauritius does much better than Thailand is the number of physicians per capita: Mauritius' rate is three times that of Thailand's. As a result, Mauritius has a higher life expectancy and infant and maternal mortality rates. The percent increase in the period 1970 and 2004 is also superior in Mauritius on all three outcomes. On two other selected measures, HIV and tuberculosis prevalence, Mauritius also outperforms Thailand. As emphasized at the beginning of this dissertation, Thailand's health performance is by no means terrible. However, given the poor ethnic and institutional environments in which Mauritius

operated over the past three decades, that it should outperform ethnically-homogenous Thailand is extraordinary.

Health Indicators	Mauritius	Thailand
Public expenditure on health (% of GDP), 2003-04	2.2	2
Physicians (per 100,000 people), 1990-2004	106	37
Births attended by skilled health personnel (%), 1996-2004	98	99
One-year-olds fully immunized against tuberculosis (%), 2004	99	99
One-year-olds fully immunized against measles (%), 2004	98	96
Life expectancy index	0.79	0.75
Life expectancy at birth (years) (HDI), 2004	72.4	70.3
Life expectancy at birth, female (years), 2004	75.8	74
Life expectancy at birth, male (years), 2004	69	66.7
Life expectancy at birth (years), 1970-75	62.9	61
Life expectancy at birth (years), 2000-05	72.1	69.7
Life Expectancy, % increase 1970-75 vs. 2000-05	**15%**	**14%**
Under-five mortality rate (per 1,000 live births), 2004	15	21
Infant mortality rate (per 1,000 live births), 1970	64	74
Infant mortality rate (per 1,000 live births), 2004	14	18
Infant Mortality Rate (per 1,000 live births), % decrease 1970-2004	**78%**	**76%**
Under-five mortality rate (per 1,000 live births), 1970	86	102
Under-five mortality rate (per 1,000 live births), 2004	15	21
Maternal mortality ratio adjusted (per 100,000 live births), 2000	24	44
Maternal mortality ratio adjusted (per 100,000 live births), % decrease 1970-2000	**83%**	**80%**
Infants with low birthweight (%), 1996-2004	13	9
HIV prevalence (% ages 15-49), 2005	0.6 [0.3 – 1.8]	1.4 [0.7 – 2.1]
Tuberculosis cases - prevalence (per 100,000 people), 2004	135	208

Table 5.14 Health Indicators in Thailand and Mauritius, 1970-2004
Source: World Health Organization

5.4 Conclusion

We have seen a big difference in the allocation breadth of health resources between Thailand and Mauritius. Thai MP's had few incentives to spend the health

budget efficiently. In contrast, they used health funds to construct buildings in their electoral boundaries in order to maximize the local vote. Thai politicians also gave little heed to corruption, and there is strong evidence to suggest that many of them were involved. As such, although the proliferate construction provided a dispersed network of hospitals and health centers, access to health services was not equal: over half of the population had no insurance, there was an uneven distribution of health personnel and the poor had an unfair share of out-of-pocket expenses. No Thai political party campaigned on a platform of national public goods, at least not one with any substance. In fact, Thai parties in the pre-1997 era had similar, empty policy platforms (Pasuk and Baker 2000). Instead, politicians made sure to closely connect their name to specific projects in their constituency.

In contrast, Mauritian political parties made health policy central to their platforms. For example, in 1984 the People's Party of Mauritius (PPM) campaigned on, among other issues, the introduction of private beds in public hospitals. This level of specificity eluded Thai platforms. In 1991, the same party campaigned on making healthcare truly free and increasing the efficiency of the system by focusing more on preventative care. In addition, the PPM wanted all hospitals to be general hospitals catering for organic, contagious and psychosomatic diseases. In terms of the major political parties, their stand on welfare policies could make or break them. The weakened MSM-led coalition in 1995 made welfare policies the focus of their economic agenda, accusing the MLP-MMM alliance of wanting to dismantle the welfare state. Upon (Mauritius Times, October 13th–16th 1995). Even though the MSM lost those elections, it continued to hound the government on this issue, forcing Prime Minister Navin Ramgoolam to repeatedly deny the claims (Mauritius Times, 17th–22nd May 1996). This was reminiscent of the MLP's drubbing from the Opposition in the 1970's when it tried to charge 1 rupee per visit, which most people refused to pay. Ironically, the MLP raised this same historic incident when the MMM/MSM government was considering a means test for pensions (i.e. to benefit only the needy) in 2002 (Mauritius Times, August 30th– September 5th 2002) and a Trust Fund for Specialized Care, which would exclude "those who have the means to pay" (Mauritius Times May 31st–June 6th 2002).

In short, the national health system is so crucial to political success in Mauritius

that politicians must tread with care. Not only must parties be seen to *not* harm the existing free and universal system, but they must be seen to vigorously improve the system. This has resulted in the position of health minister as being an important post to the government, and most of the health ministers in Mauritius have been dynamic and innovative. This same spirit was seen only once in the pre-1997 era in Thailand, but following the constitutional changes of 1997, the effective constituency breadth and accompanying breadth of resource allocation underwent a dramatic change. It is to this phenomenon that I turn to in the final chapter.

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Chapter 6: Institutional change in Thailand Mauritius

6.1 Introduction

This final chapter completes the second part of the *embedded, multiple-case* research design employed in this dissertation. Specifically, I analyze the change in constituency breadth in Thailand following the 1997 constitutional changes and speculate concerning the proposed changes in Mauritius' electoral rules, the most popular of which would result in electoral rules similar to Thailand's in the post-1997 era. Given the wholly different social structures of the two countries under study, my theory generates different predictions about the types of constituencies that will form in response to similar changes in the institutional environment. In brief, given the level of ethnic diversity in Mauritius, I hypothesize that introducing a dose of PR into the electoral system (as proposed) will encourage the strengthening of ethnic parties, effectively narrowing the size of constituencies and causing the decomposition of the tenuous multi-ethnic parties and alliances. In contrast, in ethnically homogenous, highly cross-cutting Thailand, the introduction of a PR upper-tier composing 20% of the legislature led to a major increase in the size of constituencies.

The majority of this final chapter is dedicated to an analysis of the *actual* changes that took place in Thailand. However, I begin with an account of the *proposed* changes in electoral rules in Mauritius. My predictions for the change in constituency breadth rely on the following sources: public forums, parliamentary minutes, expert opinions from lawyers, independent committee reports and interviews with politicians (both first-hand and as reported in Mauritian newspapers). I thus attempt to paint a picture of the calculations that politicians and voters are engaging in as they consider these constitutional changes. My findings reveal why these proposals have never come

close to being passed in the legislature despite long being under consideration in Mauritius: Hindu politicians, who could easily construct a Hindu majority under PR rules, are reluctant to press for the changes because of their current reliance on a multi-ethnic constituency for their individual seats and on a multi-ethnic coalition to remain in government.

I then turn to the Thai account. The injection of PR into the electoral system in Thailand, combined with other reforms, served to broaden the constituencies of party leaders and give them strong incentives to increase party discipline and unite with smaller parties so as to increase their national appeal. I thus show that, immediately following the introduction of the 1997 constitution, as politicians and parties became more nationally-oriented, Thai parties began to broaden their allocation of health resources. This culminated in the introduction of an ambitious universal health insurance plan in 2001, referred to commonly as the *30-baht scheme*. The 30-baht scheme placed Thailand in the ranks of the extremely few middle-income countries to attempt such a generous social program. Under the scheme, all Thai citizens were entitled to visit a participating medical professional for just 30 baht (about 75 cents). Up to 40% of the country that had never had access to healthcare before were immediately eligible for coverage by the scheme. And, despite concerns over financing and other logistics, the 30-baht scheme rolled out to the huge success of the governing party – Thai Rak Thai. Some scholars credit the political acumen of Thai Rak Thai's leader, Thaksin Shinawatra, for the implementation of this and other "populist" policies (2002; McCargo and Ukrit 2005); some have suggested that the 30-baht scheme represented a new social contract in reaction to the failure of economic liberalism seen in the financial crisis of 1997 (Hewison 2004, 2005); and yet others see the 30-baht scheme as a continuation of social security policies brought about by the consolidation of democracy in Thailand (Haggard forthcoming 2008; Schramm Forthcoming). Yet, while these personal, socio-economic and political regime factors are undoubtedly relevant, this chapters emphasizes the centrality of the incentives provided by the *socio-institutional environment* in enabling this policy's implementation. Comparing the allocation of health resources in the post-1997 period to the 1979-1997 period, I identify which groups in Thai society stood to

benefit from decisions in financing, access, and investment, and how those groups related to policy decisions Thai politicians made.

6.2 Predicted Change in Constituency Breadth in Mauritius

At least as early as 1995, political parties began to make serious calls for an amendment to the country's electoral rules. The MLP-MMM alliance in the 1995 elections resulted in the opposition MSM-RMM alliance receiving no seats despite securing almost 20% of the national vote. Referred to as the 60-0 phenomenon, this was the second occurrence in the country's short history. On the first occasion, in 1982, the MLP had found itself on the wrong side of the 60-0 phenomenon, and despite benefitting in the 1995 elections it immediately became the victim of gross party disproportionality in the ensuing elections in 2000 (the MMM-MSM alliance secured a 54-6 victory). In response to increasing demands for electoral reform by both the MSM and MLP, the following year the government set up the *Commission on Constitutional and Electoral Reform*, commonly referred to as the Sachs Commission. The Sachs Commission analyzed five models of electoral rules with the goal to "make proposals regarding representation in Parliament on a proportional basis within the existing electoral system" while considering the "prohibition of communal or religious political parties" (Sachs, Tandon, and Alnee 2002, p.3).[121] Two of the models were dismissed readily by the commission (based on the terms of reference given to it by the Mauritius government) and treated somewhat cursory within the report. I thus analyze the remaining three, comparing the insights offered by the Sachs Commission to the predictions generated by my theory.

Model 1: Limited Opposition-targeted PR

The first model is aimed solely at ensuring there is adequate representation of the opposition in parliament, guaranteeing them at least 25% of the seats. The FPTP system would keep intact the current 3-member districts, but allow parties to present a list (prior to elections). Party vote totals are simply derived from the district-level voting, however.

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[121] Darga (2004) was useful in the analysis of the Commission's 80-page report.

In the 2000 elections, the PTR/PMXD alliance would have received an extra 13 seats to give it a total of 21 in an Assembly of 83, assuming the BLS is simultaneously abolished (Sachs, Tandon, and Alnee 2002, p.17). The 25% threshold is in direct response to the constitutional requirement of requiring a 75% super majority to amend the constitution. Opponents argue that it is a clear improvement over the current system in that it eliminates the 60-0 phenomenon while ensuring the right to form the government by the party or alliance that has the majority of votes. Opponents bemoan the artificial limit of proportional correction.

The Sachs Commission Report makes no attempt to analyze how this system would affect the party strategies, however. In fact, they admit that they are not able to "predict with certainty how party or voter behavior would be affected whichever model is adopted" (Sachs, Tandon, and Alnee 2002, p.25). I structure my predictions around the central premise that voters seek to maximize the share of their ethnic group in the legislature and engage in ethnic headcounting to make strategic decisions regarding their vote. I focus on the following question: Do Hindus, the largest group in Mauritius, have any incentive to break their current pattern of cross-ethnic voting and switch to voting strictly for Hindu candidates and parties? For Model 1, the answer is a clear no. Given the medium level of ethno-geographic cross-cuttingness and the manner in which electoral boundaries are drawn around ethnic groups, and as explained in Chapter 4, if Hindus voted only for Hindu parties/candidates they would not be able to form the government with certainty. In turn, the minority ethnic groups would vote together, forming a two-party system (split 50-50 on average) and no party would benefit from the extra seats available under this model, since they only "top-up" parties to 25%. This system, therefore, keeps intact the strong incentives of cross-ethnic voting inherent in the current system.

Model 2: Compensatory PR

The second model considered by the Sachs |Commission is similar to the German compensatory PR system. It grants "complete correspondence between the will of the people as expressed on a national basis and the extent of representation in the House" (Sachs, Tandon, and Alnee 2002, p.18). In other words, if a party gets less seats than its

proportion of votes suggests it should, the PR system makes up the remainder. In essence, the system is perfectly proportional. Thus, in the 2000 elections, the MLP/PMXD alliance would have received 37% of 140 seats – adding 50 people to the mere 8 they won at the district level. The Sachs Commission outlined two disadvantages to this model. First, the "radical" altering of FPTP would hamper the voting public's familiarity with the new system; and second, the increased size of parliament would put "pressure on accommodation and the budget." There is no elaboration on the word "accommodation" within the report. Given the logical flow of the paragraph in question, however, it does not appear to refer to ethnic accommodation, but seems to be referring to policymaking efficiency. Regardless of the word's vagueness, there is no analysis in the report of the effect of such a system on the strategies of parties and voters.

In effect, this second model ensures complete proportionality based on the total percentage of votes. It completely eradicates the 60-0 phenomenon, such that a party that wins no seats at the district level is entitled to numerous seats in the final analysis. However, the system also completely eliminates the incentives to vote for candidates of other ethnic groups at the district level. Assuming that the salience of ethnicity is still strong in Mauritius—I discuss this more below—candidates could simply cater to their own ethnic group at the district level. As a result, ethnic parties would likely emerge, and candidates of the same ethnicity would win all three seats in each district with mere pluralities (i.e. not 50% + 1) in many cases. In the pre-independence constitutional discussions, the Muslims and Franco-Mauritians were adamantly opposed to a system of complete proportionality, fearing "the start of the dreaded era of Hindu domination, and eventual annexation of Mauritius to India as well" (Mauritius Times, November 30th– December 6th 2001). Mauritius' first Prime Minister, Sir Seewoosagur Ramgoolam, said of the proposed PR system:

> "We were opposed to such 'Proportional Representation' because it would accentuate communal divisions and undermine formation of a strong united Mauritian nation, based on give and take, mutual understanding and tolerance. It would instead torment communal separatism and lead to the creation of a number of small parties" (Ramgoolam 1982).

The constitutional founders of Mauritius understood the dangers of complete PR in a nation where ethnicity, religion and class reinforce each other.

There are two reasons why the same logic may not apply to the electoral rules proposed in Model 2. First, the system still encourages ties to the local electoral district with the FPTP system. As shown above, however, there are zero incentives to actually win a district-level seat, since only the total number of votes matters in the final balance of the legislature. In addition, in an ethnically-charged nation, such geographic ties are undermined by voters' desire to maximize group representation. In response, one might argue that after over 30 years of multi-ethnic politics and the development of 3-4 stable major parties, voters no longer engage in such ethnically-based calculations. However successful the current electoral system has been in encouraging cross-ethnic cooperation, the ethnic situation in Mauritius remains tenuous. In addition to the moderate-low level of ethno-income cross-cuttingness and low level of ethno-religious cross-cuttingness, which I use to capture the saliency of ethnicity in this dissertation, the 1999 ethnic riots in Mauritius sparked a revival of overt ethnic grievances. The violence followed the death of reggae singer Kaya, a Creole, at the hands of the Hindu-dominated police. In response, three days of Hindu-Creole violence ensued. Over four people died, while numerous were injured and looting was rampant causing the President, at one point, to threaten to impose a state of emergency. The aftermath of the riots generated the phrase "*malaise Créole*", referring to the low economic and social status of the Creole population in Mauritius, which has been a central theme of social and political discourse ever since.[122]

A second recent event emphasizes the tenuous nature of ethnic relations in Mauritius. Following the 2000 elections, Jugnauth gave up the premiership to Paul Bérenger, a Franco-Mauritian and first non-Hindu Prime Minister. Some observers posit that this sharing of the premiership caused Hindus to go over to the MLP in disgust, ultimately leading to the MLP's (in alliance with PMXD) first ever victory against an MSM-MMM alliance. These two events underscore the sensitivity of the ethnic question in Mauritius, and explains the reluctance of politicians to change the electoral laws. Ethnicity is still highly salient in Mauritius. Eriksen's (1998) definitive description of Mauritian society emphasizes that Mauritians are reminded of their ethnicity and related

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[122] Based on personal interview with MLP leader.

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social status on a daily basis; he also argues that the stability of Mauritian national identity could be easily jeopardized if the government is not successful in making multiculturalism rake root. Accordingly, the Economist Intelligence Unit reported that Mauritian politicians "are keen to ensure that the ethnic arithmetic concurs with the redefinition of the electoral system so that their prospects at the ballot box are not diminished," but that ultimately "the sensitivity of the question of electoral reform should not be underestimated, and it remains to be seen whether the current harmonious relationship will be sustained once the implications of the changes for both parties' electoral prospects are clear" (EIU, 2000 2nd Quarter Report).

Model 3: PR Upper Tier

The third model considered in the Sachs Commission report is that of a PR upper tier composing 33% of the legislature, or an additional 30 seats to the current 62 FPTP seats. The report argues that this model will "load the House heavily on the side of the constituency form of representation" (Sachs, Tandon, and Alnee 2002, p.17). In the previous model, I contended that complete proportionality would lead to a break-down of the multi-ethnic party system in Mauritius. But are 30 PR seats enough to lead the Hindus to be certain of forming the government? As per the analysis of the number and relative size of ethnic groups, their geographic distribution and ethno-income cross-cuttingness, were the electorate to vote ethnically, a Hindu and non-Hindu party would likely emerge with 50% of seats on average. Thus, at the PR stage, the Hindu party would receive 52% of the seats, or an additional 16, while the non-Hindu party would receive the remaining 14.[123] And while two seats may not inspire the type of Hindu certainty that would propel immediate change in the current party system, it certainly guarantees a Hindu victory. Raising the size of the upper tier further, however, increases a Hindu party's assurance of victory and thus the likelihood of party system change. Given the already high level of ethnic voting in Mauritius—most Hindus vote for the MLP or MSM, most minorities votes for MMM or PMSD—such a system would be dry tinder waiting for a spark. Such a spark could be a repeat of the 1999 riots, following

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[123] 52% of 30 seats is 15.6 seats, so the Hindus are only guaranteed 16 seats if voter turnout that reflects their population size.

which the Opposition was accused of trying to capitalize on the violence by reproaching the government for the appointment of a nurse at the Rose Belle hospital (Mauritius Times, May 21st–27th, 1999). Thus, it is not hard to picture a rapid switch to an ethnic-party system in Mauritius. Indeed, numerous countries have experienced immediate changes to their party systems following the introduction of new electoral laws (Shugart and Wattenberg 2003).

As such, it is understandable why a *Mauritius Times* article called the PR system "Rotten and Abominable", arguing that it would harm the discipline of parties (November 30th-December 6th 2001). Model 3 was the final recommendation of the Sachs Commission, but reform has continued to languish. The MMM-MSM alliance came to a weak consensus on adding an additional 10-12 seats to the current 70, somehow incorporating an adapted best loser system. Rama Sithanen accused the reforms of completely ignoring the Sachs Commission's recommendations to both add 30 PR seats and abolish the BLS (L'Express, March 17th 2005). Accordingly, the MLP campaigned on electoral reform, but it too overlooked the issue once in office. The most recent official statement from the MLP government was a promise to resume consultation on the electoral reform process in May 2008 (Government Information Service 2008). There are two major reasons for this hesitation: first, the inability of current multi-ethnic government alliances to reach a consensus on the form of the new electoral rules; and second, the reliance of individual politicians on multi-ethnic constituencies that would frustrate the legislation even if there were elite consensus. In short, the current socio-institutional environment is preventing the constitutional change.

6.3 Broadening of Constituencies in Thailand in the post-1997 Democratic Era

In contrast to Mauritius, injecting a dose of PR into the Thai political system led to an increase in the effective breadth of constituencies. As hypothesized in the first chapter, this broadening of constituencies is conditional on the underlying social structure being ethnically homogenous, i.e. few ethnic groups. Accordingly, in homogenous Thailand (85% ethnic Thai, 11% Chinese highly assimilated into the Thai culture), the constitutional changes of 1997 significantly increased constituency breadth. The

electoral rule changes were as follows: first, the mostly multi-member districts were replaced by 400 single-member districts; and second, an additional tier elected in a single national constituency, constituting 20% of the legislature, was added. Thailand's average ARP score shot up to .20 meaning that each politician was effectively accountable to 20% of the population. In such a homogenous country, parties were able to reformulate themselves as representing national interests. Not all did, and the ones who understood the new socio-institutional best were the most successful.[124]

The upper tier meant that the individuals on the party list, which tended to be party elites, had strong incentives to make appeals to the entire nation, and thus broadly allocate resources, thus greatly increasing the value of the party label. For the first time, the electorate could cast a vote for a political party to represent them at the national level in addition to voting for their local representative. With 20% of the votes up for grabs on this new tier, parties had strong incentives to create an attractive national platform that distinguished them from other parties. Rampant party switching went on in the interim between the promulgation of the constitution in 1997 and the first elections in 2001, especially in the year leading up to the elections. Candidates, moreover, were not following their usual pattern of party switching based on patron and kinship ties. Indeed, many candidates were moving to the party with the best formulated policies and national platform – Thai Rak Thai (TRT). Most others switched to Democrat party, the ruling party generally seen as being the most policy-oriented prior to TRT. However, its reputation amongst the electorate for its policy commitment certainly benefitted the party in the upper tier. Winning just 24% of the 400 constituency seats, the Democrats won 27% of the upper tier votes (and 31% of the seats). In contrast, the winning party, Thai Rak Thai, won only 41% of upper tier votes compared to its 50% percentage of lower tier seats showing that Thais were ambivalent about the party's national policy credentials. With the success of the 30-baht scheme, however, not only did more candidates switch to Thai Rak Thai, but their policy credibility surged. In 2005, they won 62% of upper-tier votes, while the Democrats, struggling to find a competitive national platform, dropped 4% to just 23% of the upper-tier vote.

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[124] Baker (2002) writes how the New Aspiration and Thai Nation parties mimicked TRT in trying to broaden their appeal by creating slogans aimed at the rural population, which constitutes 60-70% of the Thai population.

Furthermore, candidates were seen prominently displaying their party's name for the first time. Even in local and provincial elections, candidates' election banners displayed their affiliate party. Certainly, party leaders had little formal power to enforce the displaying of a party's emblem by individual candidates, but they had strong incentives to encourage them to do so. It was even alleged that the winning party, Thai Rak Thai, paid individual candidates to represent the party label. Seasoned politicians, however, initially saw the new tier as an easy way to capture two seats. As commanders of factions, they would negotiate themselves onto the party list leaving a protégé in their local constituency, often a son, daughter or close relative. One might argue that the upper-tier politicians would then retain their local focus. However, once on the list, these faction leaders and senior politicians became wholly dependent on the success of the party on the national tier. They thus stood arm-in-arm with the other segment of the party leadership who were strictly concerned with policy.[125] This burgeoning party leadership had compelling incentives to run strong candidates in as many districts as possible to stand as good advertisements for the party. Those lower down on the list were perhaps the most fervent in this process. Party leadership even exercised ballot control in some places, sometimes choosing candidates with weaker local appeal that were more committed to the party.[126] Ballot control also came through the entrepreneurial Thai application of the party list explained above, with political old hands running (and funding) protégés in their old districts.

As our socio-institutional theory predicted, then, we see that the effective breadth of constituencies increased significantly following the 1997 Constitution. First, the change in district breadth caused especially by the new upper tier, made it difficult for local patron-client networks to compete for 20% of the seats in the Thai parliament. Strong pre-election parties now had to be forged, rather than the typical post-election

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[125] This is true of TRT and the Democrat party at least. Policy commitment in other parties was less visible, perhaps explaining their miserable failure at the polls. However, even without policy, upper-tier candidates in the smaller parties had arguably the strongest incentives to encourage their candidates to advertise the party's name: failure to reach the 5% threshold in the upper-tier meant that their party would receive no votes, and the leadership would be out of politics altogether. 14% of upper-tier seats in the 2001 elections were up for grabs due to small parties not making the mark.

[126] Based on personal interview with candidates of the Democrat party. The Democrats had previously practiced this to some extent, especially in Bangkok. Thai Rak Thai did so outside of Bangkok – in Chiang Mai for example.

scramble among small parties into temporary parties. With broad districts, macro social structure came to dictate political competition. Specifically, in Thailand's homogenous society, parties unified around broadly distributive policies rather than ethnic, regional, or class politics. TRT's unification of big urban business, small business entrepreneurs (rural and urban) and the rural masses proved to be the most effective social alliance. The Democrats, the other big party making broad appeals, were hurt by their association with the Southern region – an association that the party had developed for the past couple of decades, and that had served them well under the old institutional rules (Jantrasuk 1996).[127]

Accordingly, we began to see an array of broadly-targeted public goods in Thailand after 1997. The most salient policy arena came to be health insurance, with the political party first elected under the new rules implementing a universal scheme referred to as the 30-baht scheme.[128] Indeed, social welfare policies in Thailand became the primary vehicle for parties to reach the entire nation in the most cost effective way. The familiar pattern of locally-targeted pork literally vanished in the health ministry. I now turn to a detailed description of the politics of health care policy, dividing my account into the pre- and post-1997 eras.

6.4 Healthcare Policy in the Post-1997 Era

Thai Rak Thai – Rural or National Party?

Thaksin successfully navigated the murky waters of the first elections under the 1997 constitution. His vision was that he understood the new socio-institutional environment, and built a nationally-targeted policy platform aimed at creating a strong, national party.[129] Combining support from urban business interests with his "new-

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[127] The Democrat's association with the financial crisis may also have been a factor.

[128] This name came from 30-baht co-payment required for a doctor's visit, popularized by the campaign slogan – *sahm-sip baht raksar tuk rohk,* or "30 baht cures all diseases". .

[129] Indeed his party, Thai Rak Thai, which translated is *Thais Love Thais*, is suggestively nationalist. Baker describes Thaksin as nationalist in terms of the national nature of his "populist" policies. In addition, he states: "This Pluto-populist alliance of rich and poor was glued together by nationalism." See Baker (2002, p.131).

thinking" academics and technocrats, TRT's election campaign also focused on a series of policies aimed at benefitting the vast rural poor, including the flagship 30-baht scheme. It is unclear how the party would have fared if not for this rural support, which resulted in TRT achieving something unprecedented in Thai politics: winning an absolute majority in the legislature (after a few, small post-election adjustments). The content of the TRT platform is crucial in understanding who the party saw its constituency as prior to the elections, and who it catered to after the elections.

As several scholars have noted, no macro social cleavage has ever dominated political divisions in Thailand (Pasuk and Baker 2002; Hicken 2008). Due to its high level of cross-cuttingness among numerous cleavages, TRT initially catered to as much of the nation as possible. *Universal* healthcare and hospitals, doctors, products, scholarships, and dream schools for *every* district. Many have labeled TRT's policies as populist, aimed at the uneducated poor; but TRT's policies were populist more in the sense that they attempted to cater to everybody. As most segments of society saw their lot improve, TRT was duly awarded.[130] As a result, TRT won everywhere in the 2005 elections, including Bangkok, where the majority of middle- and upper-classes reside.

Electoral Importance of the 30-baht scheme

Universal care (UC) had been part of TRT's party manifesto since the 26th, March 2000 along with a slew of other "populist" campaign promises (Pitayarangsarit 2004, p.4). However, it was not until October 24th, 2000 that the party launched the slogan "30 baht to cure any disease." The question that intrigues me is why so late? If, as many claim, TRT won only because of its ability to co-opt incumbent MPs into the party with financial enticements, it had already managed to convince at least 110 by July, 2000; thus, why would TRT need to make such a large election promise so late on in the game? Moreover, numerous polls suggested that TRT had edged ahead of the Democrats by that point. Was such a huge campaign promise that many deemed as having shaky feasibility worth it?

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[130] The implication of this theory is that, had Thailand a different social structure, we would have seen different policy outcomes, and different party bases. In Mauritius, for example, the national social structure completely changed the way politics and distribution of resources played out despite having a similar political structure to pre-1997 Thailand. Mauritius is also increasing getting closer to changing to a either a complete PR system, or at least an upper tier similar to Thailand. I would predict different outcomes there.

Two points are noteworthy here. First, TRT had begun researching the implementation of Universal Coverage as early as mid-1999. The party research was not just a simple exercise in information gathering either. TRT counseled with health reformists to study how to "effectively utilize the existing healthcare resources", gain "cooperation from both the public and private sectors", and determine the appropriate amount for a user contribution (Pitayarangsarit 2004, p.16). Second, the party's victory was never guaranteed, despite promising public opinion surveys. Even in December (the polls were January 2001), the NCCC case emerged to throw the party's victory in doubt. A survey conducted by the Rajabhat Institute in late December saw TRT's seat total fall from an estimated 222 (from the Institute's previous survey) to 190. Indeed, the Democrats stayed on their heels the entire race, and estimates of how other parties (New Aspiration, Chart Patanna, Chart Thai, Seritham, Rassadorn) would fare meant that TRT could have easily found itself in the opposition come January.[131] Thus, TRT clearly saw Universal Health Care as an essential tool to gain garner more votes both on the party list and in local districts.[132]

Brief Description of the Program

Universal coverage had been suggested as early as the 1970s, when student reformers and socialist-leaning political parties enjoyed political influence. The idea was immediately deemed impossible given Thailand's economic position, but proponents of the idea never stopped developing alternatives. The Free Medical Welfare program for the Poor was the first step in its advancement, as was the subsequent Voluntary Health

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[131] Baker (2002) describes how the Senate elections in 2000 demonstrated that patron-client relations were still alive, making the outcome of the January 2001 elections even less predictable. As a note, these elections differed greatly from the parliamentary elections in that Thai senators were strictly forbidden to have party affiliations and the Senate had very little power.

[132] The campaign paid dividends, however. Contrary to those latest polls, TRT won 200 constituency seats (50%) and 48 national tier seats (40.6% of the votes). However, the party did much worse on the national tier vote than in the constituencies. In contrast, the Democrats won slightly more of the national tier seats (31 with 26.6% of the votes) than constituency seats (97 or 24.3%). In short, just under 10% of Thais voted for a TRT candidate and then chose another party on the national tier. This indicates that TRT had problems passing itself off as a nationally viable party. Was this due to the corruption case, or the fact that it was a young party?

Card Scheme[133] for the "not-so-poor". The former was constantly plagued by under-funding, inability to determine eligibility, political interference and corruption. The latter suffered from all the same issues also, but additionally had the problem of adverse selection—the voluntary nature of the card meant that mostly high-risk individuals participated in the scheme, making it financially unmanageable. Both programs, moreover, suffered from quality issues and complaints about insufficient coverage of medicines.

The 30-baht scheme had its direct predecessor in a 70-baht pilot program in Ayutthaya and six other provinces run by Dr. Sanguan Nittayarampong in the early 1990s. More recently, the Ban Phraew hospital in Ratchaburi province had ran a 40-baht scheme extremely effectively. After announcing its platform in 1999, TRT began researching into more practical and precise policy options in several areas of social welfare, including health and education. Dr. Sanguan, who had been waiting for such an interested political party to come around for years, jumped at the chance to sell his vision of universal health to TRT. In fact, Dr. Sanguan presented his ideas to several political parties. He says of his meeting with TRT, however:

> "it was particularly gratifying to have the opportunity to present detailed information to a political party that was so inclined to support it. I did not anticipate that this party would win the up-coming election and eventually form a one-party government" (Nittayarampong 2005, p.86).

It took a few months for subsequent research and policy implementation to be completed, but Dr. Sanguan gives the credit for marketing the program squarely to TRT. It was their health research team, headed by Dr. Surapong Suebwonglee that came up with the co-pay amount and the slogan.[134]

However, health insurance was not the only health policy TRT took on. The party's vision entailed a complete overhaul of the health system—hospital accreditation, methods of financing hospitals, preventative care, and at the end of its regime even doctor shortages.

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[133] For 500-baht, participants could purchase the health card, which would entitle their family to a certain number of visits per year with no co-pay. The government would match the 500-baht, paying service providers 1000-baht (about $30 in today's dollars) per person.
[134] Dr. Sanguan gives personal credit to Dr. Surapong for the slogan. See Nittayarampong (2005) p.93.

A Standard for Evaluation

To evaluate the breadth of TRT healthcare policy, then, we must look at more than just access to care. Thus, it is useful to have an ideal in mind of what a more nationally-oriented healthcare policy should look like in Thailand. First, the healthcare system should have greater equality both geographically and in terms of social class. The per capita benefit among all groups of people should be equal, with exceptions made only for cost-of-living adjustments. Healthcare facilities and personnel should be more evenly distributed throughout the country. Moreover, the quality of care should be similar in terms of qualifications of medical personnel, standards of drugs and medicines, and access to necessary medical equipment. The decades-long doctor shortage problem should improve, with an increase in the number of doctors and other medical personnel and an effective policy for a long-term solution in place. Spending on infrastructure should take up a much lower percentage of the budget. More money should be allocated to preventative care, health promotion, and actual treatment of diseases. Finally, corruption should occur less and tackled more effectively when it does occur, thus maximizing public funds. In some of these areas of evaluation just mentioned, the conclusions of TRT health policy are clear, but in others the results are less certain. With just five years in place, final outcomes are perhaps impossible to assess, but intentions can perhaps at least be perceived.

In short, I find that TRT health policy was broadly distributive in nature, and not just name. The 30-baht scheme was successful in distributing healthcare more evenly among the population. While certain policies failed, TRT back-tracked on others, and others brought unintended negative consequences, I find that the general intentions of TRT were to disperse health resources as broadly as possible, while ensuring no group of society would experience a decrease in benefits. In all the areas mentioned above, TRT had either implemented a comprehensive plan, or had devised legislation to tackle the area by 2006. The aim was to benefit the entire nation as broadly as possible. Even in the only area where TRT policy performed significantly worse than in previous eras (doctor shortages), by the end of TRT's reign, the party had devised a ten-year program to tackle the problem.

Access to healthcare: Who Benefited?

Clearly, if we just take the number of people covered by health insurance, the 30-baht scheme represented a much broader allocation of health resources. Different sources vary on how many Thais lacked health insurance prior to the introduction of the 30-baht scheme. In 1991, official reports put the figure as high as 66.5% of the population. In the year before the financial crisis, 54.5% of the population had no insurance. This figure came down dramatically by 2001 (before the 30-baht scheme was introduced) to 29% of the population, or 18 million persons. Other sources estimate that up to 25 million, or 45% of the population, had no health insurance.[135] This 25 million was composed mostly of those that had incomes too high to make them eligible for the free medical services program (under the previous insurance system) but who could not afford to purchase the 500-baht voluntary insurance cards. The not-so poor rural population, then, were the ultimate beneficiaries of universal access. In total, the 30-baht scheme covered 47 million people, subsuming the approximately 20 million eligible for state medical welfare and the seven million 500-baht health card participants in addition to the 20 million or so without any health security.[136] These last two groups were covered by different schemes: the Civil Servants Medical Benefits (CSMB) and the Social Security Scheme (SSS).

Year	1991	1996	2001	2003	2004
Voluntary Health Card	1.4	15.3	20.8		
Civil Servants and State Enterprise Employees	15.3	10.2	8.5	8.9	9.4
Social Security and Worker's Compensation Fund		5.6	7.2	9.6	10.7
Pop w/o insurance	66.5	54.5	29	5.1	5.7
Universal Coverage			0.9	74.7	73.5
Medical Welfare for Poor	12.7	12.6	31.5		
Private	3.1	0.8	1.3	1.7	0.8
Other	0.9	1	0.8		

Table 6.1 Percentage of People with Health Security
Source: Reports on Health and Welfare Surveys, 1991, 1996, 2001, NSO; Tancharoensathien et al. (2004)

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[135] The Nation (18th April, 2002) estimates the figure could have been as high as 25 million in 2001.
[136] The remaining 15 million of the Thai population included the seven million civil service workers and their families plus approximately 8 million social security workers and their families. The Nation. 17th March, 2001; 20th January, 2004.

The aim of the 30-baht scheme was to provide equal access to all segments of society. However, inevitably, some benefited more than others. First, the 15 million people covered by the CSMB and the SSS did not gain from the 30-baht scheme. Indeed, Thaksin's original plan was to merge both programs into the 30-baht scheme. Opposition from civil servants quickly reminded TRT, however, that in its goal to broadly distribute health resources to the Thai population, making 15 million people worse off, (half of them significantly worse off) would not be a wise political strategy. Rather than complete equality in distribution of health goods, then, the TRT goal was to universally improve health benefits.

The CSMB was notorious for its exorbitant benefits. Prior to the 30-baht scheme, CSMB benefits were over ten times greater than those in the Medical Welfare Scheme. Following 2001, CSMB benefits were "only" just under three times greater than 30-baht participants – 3,600 baht per person compared to 1,308 baht per person respectively. Indeed, the cost of healthcare for civil servants and their relatives actually rose quite steeply from Bt18 billion in 2001 to Bt25 billion in 2003. To care for 40 million more people under the 30-baht scheme, the government spent just Bt5 billion more![137] In 2004, the CSMB was expanded to cover parents of state employees, increasing the budget to an estimated Bt27 billion per year.[138] In sheer percent of budget, then, civil servants (mostly middle-class urbanites) benefitted most under the new health policy.

Indeed, a study conducted by the Faculty of Medicine at Naresuan University found that people with higher incomes continued to have access to better healthcare. Other studies found that the Bt30 system actually widened the gap between rich and poor, although Table 6.3 suggests that this has come at their own expense through private health insurance (Pannarunothai 2004).

Other signs of satisfying the upper class included the introduction of extra co-pays for VIP treatment. The VIP scheme was heavily criticized for funding the rich seeking non-basic, high-cost treatment in areas such as heart or brain surgery.[139] In general, though, the 30-baht scheme itself was seen as anti-upper class. A study by Dr Supasit

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[137] Comptroller Department, Thai Ministry of Finance. The way this comparison is phrased comes from The Nation. 17th February, 2004. "Officials draining scheme."
[138] The Nation. 22nd March, 2004.
[139] The Nation. 31st August, 2002.

Pannarunothai (2003) showed that only 19 per cent of beneficiaries had an income higher than Bt15,000. In fact, TRT constantly had to defend itself against claims that it was trying to exclude the rich from the scheme. [140]

In general, the rural poor benefitted the most in terms of coverage, decrease in household expenditures on health goods and services. Table 6., moreover, shows that this lack of insurance fell mostly in urban areas. In 2003, 9% of urban dwellers were uninsured compared to just 3% in rural areas.

	Municipal (Urban) (32.8% of Pop)	Non-Municipal (Rural) (67.2% of Pop)	Total
Civil Servant Medical Benefit Scheme	14.6	6.2	9.0
Social Security Medical Scheme	17.7	5.6	9.6
Universal Coverage	55.6	84.1	74.7
Private Insurance	2.9	1.0	1.7
No insurance	9.1	3.1	5.6
Total	100%	100%	100%

Table 6.2 % of Population by Insurance Scheme and Area of Residence, 2003.
Source: 2003 Health and Welfare Survey. National Statistical office

Table 6.3 shows the percentage of private savings experienced by each income decile, 1 being the poorest and 10 being the richest group. All but the richest third of households saw a decrease in private health expenditures following the implementation of the 30-baht scheme. The poorest group's private health expenditures decreased by a whopping 40%, but even middle-class groups saw decreases in the 10% range. The far-right column, moreover, shows the decrease in discrepancy between the percent of income spent on health goods and services by the richest and poorest groups. While still spending 1% more of their budget on health expenditures than the richest group, the poorest group experienced large declines in their private expenditures.

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[140] The Nation. 21st June, 2003.

	1	2	3	4	5	6	7	8	9	10	Discrepancy
1992	8.2	4.8	3.7	3.7	2.9	2.6	2.4	2.0	1.6	1.3	6.4
1994	7.6	4.8	4.5	3.6	3.3	3.0	2.5	2.3	2.0	1.3	6
1996	5.5	4.6	3.3	3.2	2.9	2.5	2.4	2.0	1.6	1.1	5
1998	4.2	3.1	3.0	2.9	2.6	2.4	1.9	2.0	1.6	1.2	3.4
2000	4.6	3.7	3.3	2.8	2.4	2.2	2.1	1.7	1.6	1.3	3.6
2002	2.8	2.6	2.1	1.9	2.2	2.0	1.7	1.9	1.8	1.7	1.6
% Decrease Expenditures 2000-2002	40%	29%	35%	32%	8%	11%	16%	-14%	-18%	-35%	

Table 6.3 Percentage of Households' Health Expenditures, by Income Decile, 1992-2002 (Discrepancy is between groups 1 and 10)
Source: Tangcharoensathien (2004)

Overall in Thailand, total health expenditures decreased to Bt103 billion from Bt170 billion.[141] With a population of 63 million, then, Thaksin effectively handed out just over 1000 baht per person. For poor, rural residents, then, the 30-baht scheme was akin to a pay rise in the range of 5-10%.

Several reports further demonstrate the effect of the 30-baht scheme on the poor. A National Economic and Social Development Board (NESDB) report in June 2003 found that the 30-baht scheme increased people's access to medical treatment from 70 per cent of the population to 95 per cent, and that since the program was introduced, low-income people have been able to save 29 per cent on their healthcare expenses.[142] Such findings were confirmed in successive years. In December 2004, a Thailand Development Research Institute (TDRI) study found that extra government healthcare spending once the Bt30-scheme was in place ranged between Bt8 billion and Bt10 billion roughly the same amount as the drop in private spending on healthcare during the same period, according to the study.[143] Lastly, a July 2005 article in The Nation cited figures showing that the introduction of universal healthcare was responsible for reducing

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[141] The Nation. 17th February, 2004. "Officials draining scheme."
[142] The Nation. 29th June, 2003.
[143] The Monitoring and Evaluation of Universal Health Coverage in Thailand, Second Phase 2003-04.

poverty in Thailand by 15 per cent, or 1 million people, hailing it as "surely the most effective anti-poverty program ever in the history of our country."[144]

In summary, TRT health policies greatly increased access to health resources. This naturally benefitted the segment of society that was previously lacking any kind of coverage. As such, the private health expenditures of the poorest households dropped the most significantly. However, TRT was intent on improving the lot of everybody in the country. Private health expenditures dropped for the middle class, and civil servants health benefits were also increased. Thus, while TRT did not redistribute health resources evenly throughout the Thai population, it did distribute health resources broadly in an attempt to benefit all segments of society.

Hospital Financing and the Regional Distribution of Doctors

The 30-baht scheme also benefitted rural areas via a new method of financing. Previously, hospitals were allocated lump sums, the actual amount depending on a number of factors such as the size of hospital, location and associated cost of living, and even outright favoritism. For example, Kantaralak District Hospital in Si Sa Ket province (Northeast region), under the old financing system, was responsible for a population of 250,000 on a budget that only allowed it to employ three doctors. In contrast, two other provincial hospitals, in the central and the southern regions, responsible for similar numbers of people were allocated budgets that allowed them to employ more than fifty doctors each. The new financing method allocated funding to hospitals in keeping with the number of patients rather than the size of the hospital. Under the new method, Kantaralak District Hospital was better financed, allowing it to provide better care and employ more doctors.[145]

The change in budget allocation can best be described as going from supply-driven (based on hospital size) to demand-driven (based on number of patients) and resulted in increased funding for most community hospitals around the country. Conversely, more than half of the larger hospitals (over 150 beds) received less money than before. The Northeast region was the biggest winner in this regional redistribution,

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[144] The Nation. 22nd July, 2005.
[145] The Nation. 17th April, 2002.

while the Central region tended to face financial shortages. The idea behind the new financing scheme was to force large hospitals to adjust aspects of their management, especially staffing decisions; the vision was a redistribution of doctors to rural areas.

While it initially seemed that this new financing scheme would encourage doctors to move to the provinces, it instead began to put financial strain on urban hospitals. The major problem was that "market forces" were not taking effect as quickly as hoped. Indeed, the over-supply of health personnel was becoming a burden on hospital financing, since doctor salaries consumed much of the funds that hospitals received under the Bt30 scheme.[146] In August 2003, TRT, under much pressure, adjusted the financing scheme. Rather than directly allocating a full budget based on the size of the population in each province, the adjusted scheme pooled all NHSO budgets and deducted the salaries of all doctors working in the scheme *first*. The remaining funds were then allocated based on the population principle. Effectively, this was a large step back in the direction of the old financing method. [147]

Inevitably, rural hospitals began to suffer again.[148] In response, the Office of the National and Social Advisory Council reported in September, 2003 that the government's universal healthcare scheme largely benefited big hospitals and city residents instead of the entire population, because of the budget-allocation system. [149] As a result, these large hospitals were able to continue employing large numbers of staff whereas some small rural hospitals had to stop hiring workers. Another report by Chulalongkorn University in February 2004 found that the Bt30 scheme insufficiently accessible to many people,

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[146] The Nation. 18th April, 2002.
[147] The Nation. 6th August, 2003.
[148] Pathum Ratchawongsa Hospital in Amnat Charoen, the province with the worst financial crisis with a debt of Bt100 million, even put up a sign apologizing to patients for the shortage of medications and the low quality of service. All hospitals in the province were facing the same situation, and have tried to inform the government about the problem for a year through a number of avenues. Even though the budget per capita has increased from Bt1,202 to Bt1,308, people in Amnat Charoen receive only Bt880 per head, whereas some provinces receive Bt1,700 per person. The ministry receives the budget from the National Health Security Office, which allocates budgets for the Bt30 scheme based on area populations, but the ministry does not. See: The Nation. 10th November, 2003. "More than 200 can't afford to buy supplies; doctors continue to leave." Another hospital in Si Sa Ket should have received Bt1 billion from the government for its citizens' healthcare needs, but instead was allegedly granted only half that under the new financing rules. See: The Nation. 15th November, 2003. "Si Sa Ket doctors quit over Bt30 funds crisis."
[149] Dr Prapoj Petrakard said the budget funding was changed in the second year because the Public Health Ministry was fearful that hospital workers were becoming demoralized and sought to appease them. These workers were given priority over the public, he said. The Nation. 16th January, 2004. "Advisory council says big hospitals, cities fare best under present rules."

particularly rural residents. It encouraged a return to the financing method used in the first year of the scheme.[150]

The new method of financing, then, put TRT in an awkward, unanticipated position—benefit one group (ruralites) at the expense of another (urbanites). The resolution of the problem is strong evidence that understanding TRT a populist pro-rural party is problematic. Understanding that the socio-institutional environment provided incentives for a broad-reaching allocation of the budget provides more purchase in understanding TRT's policy decisions.

Despite the failure of the new financing system, the TRT government showed its willingness to help rural areas with their undersupply of doctors. In August, 2004, the Cabinet approved Bt5.5 billion to compensate the salaries of those working at regional and rural public hospitals. [151] Two months later, the Cabinet approved Bt10 billion to produce new doctors under a "One-District One Doctor" scheme. The scheme was intended to give scholarships to one student from every district and special tutorial assistance until they graduate, with the requirement that they return to their communities and work as doctors.[152]

An integral part of the scheme was to produce 4,530 new doctors per year (normally, Thailand produces about 1,500 doctors per year—far from sufficient to meet demand) in order to meet the demand in rural areas. In addition, the government imposed stricter conditions on medical scholarship recipients. The government increased the

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[150] The Nation. 26th February, 2004. "BT30 HEALTHCARE: Programme is failing in all key areas."
[151] The Nation. 4th August, 2004. "Bt30 healthcare subsidy increased". The government promised to spend Bt8 billion between 2004 and 2006 to provide additional pay to public-sector doctors as a stopgap measure. It took until March 2006 to finally implement these raises. The income of eleven groups of healthcare workers, including doctors, was raised by providing higher bonuses on top of their salaries. The incentives will raise their incomes to 60 to 80 per cent of those of their private-sector counterparts, said the ministry's acting permanent secretary, Dr Pratch Boonyavongviroj. Incentives for doctors will rise to Bt5,000 to Bt15,000 for the fiscal year beginning last October, compared to Bt4,600 to Bt13,500 in the previous fiscal year. The exact payment will be based on workload, proficiency and how far from a city the workplace is. Health workers in Yala, Pattani and Narathiwat will receive an additional bonus, said Pratch. Medical doctors and dentists who have worked in one of the three provinces from one to three years will receive an additional Bt2,200. This will rise to Bt5,000 in the fourth year. See: The Nation. 15th March, 2006. "Salary rise for South's medical staff."
[152] This program provided medical students with Bt8,000 a month while studying. Those being covered by the "One-District One Doctor" scheme were obligated to work in a certain hospital for 12 years, or face a fine of Bt2.2 million. The Nation. 2nd October, 2004. "Bt1 trillion for health scheme."

required internship duration in a designated state hospital from three years to six years, and upped the fine for failure to do so from Bt400,000 to Bt1.8 million.[153]

Even before this program was proposed, however, official figures show that there were more doctors per bed (bed-doctor ratio) and more doctors per hospital after the 30-baht scheme was initiated. Table 6.4 shows that doctors were responsible for 8 and 7.3 beds in the first two years of the scheme, returning to levels not seen since the 1980's. The number of doctors per hospital, moreover, was higher than ever – approximately double previous ratios.

	'79	'81	'85	'87	'91	'93	'95	'96	'97	'98	'99	'00	'01	'02	'03
Bed / doctor ratio	10.8	9.6	8.1	8.1	7.5	8.9	11.8	12.3	13.7	15.3	13.9	10.6	10.9	8	7.3
Doctors / hospital	1.5	1.8	2.4	2.4	2.8	2.7	2.3	2.4	2.4	2.5	2.7	3.7	3.8	5.2	5.6

Table 6.4 Bed/doctor and doctor/hospital ratios (state hospitals), 1979-2003
Source: Current Status of Health Development, Health in Thailand 1992-3, Thailand Health profile 2003-4

Budget Efficiency: Less hospital building

One of the most significant changes to use of healthcare resources is the dramatic decrease in hospital building. Only 150 beds (or five hospitals) were added in the first three years of the scheme.[154] In comparison, 16,000 beds were added just in the two years 1995-7 (see Table 5.1). Table 6.5 shows that the percentage of funds dedicated to investment dropped to their lowest levels ever – as low as 4.4% in 2003 (compared to a previous low of 11.3% in 1987 and an average of 21% in the pre-1997 era). The amount spent on "compensation, supplies and miscellaneous items" also dropped by more than 60% between 2001-2.

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[153] The Nation. 19th May, 2006. "New scheme to solve shortage."
[154] Thailand Health profile 2003-4

	1998	1999	2000	2001	2002	2003	2004
Salaries and Wages	38.5	44.6	46.8	47.2	41.7	44.6	44.6
Operating Budget	34.2	40.2	41.7	44	50.4	51	48.7
Compensation, supplies and misc	15.6	16	16.1	15.9	6.2	7.6	8.5
Utilities	1.3	1.4	1.4	1.4	0.4	0.4	0.4
Subsidies	16.3	21.5	22.4	23.2	5.6	4.4	2.9
Other expenses	1	1.3	1.8	3.5	38.2	38.6	36.9
Investment	27.3	15.2	11.5	8.8	7.9	4.4	6.7

Table 6.5 Public Health Budget, by expense category, 1998-2004.
Source: Current Status of Health Development, also Health in Thailand 1995-6, p174

The budget, alternatively, was directed to the operating costs (found in the "other expenses" category) of the 30-baht scheme. Since the financing of the 30-baht scheme was constantly under pressure, with study after study calling for an increase in the per capita amount, belt tightening in all areas was the name of the game.[155] There simply was not any room for porky construction projects and corruption was less tolerated[156]; the 30-baht scheme was the big dog in town now.

Budget Efficiency: Preventative Care

Another method of improving the efficiency of the health budget was an increased focus on preventative care and health promotion. Indeed, the 30-baht scheme's emphasis on health promotion not matched the objectives of the national health bill, the draft law

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[155] Solutions for extra funds were floated around all the time, from increasing the ministry's budget by slashing the fuel subsidy to funding it through sin taxes on alcohol and cigarettes.
[156] When the Thaksin government took over, 23 officials were investigated on minor charges. More than 200 officials received either verbal or written warnings. The NCCC finally nailed ministerial aide Jirayu Charasthien after several respected doctors testified against him. In April, the Supreme Court's political and criminal section found him guilty of corruption and he is now serving a six-year jail term. His downfall led to fresh investigations against then-Health Minister Rakkiat. The fresh probe bore fruit as the imprisoned Jirayu provided crucial evidence to investigators, including a personal book containing recorded money transactions. The National Counter Corruption Commission (NCCC) eventually found former health minister Rakkiat Sukthana guilty of being unusually wealthy and intentionally declaring false asset reports in September 2002. The corruption story was a familiar one of accepting kickbacks from suppliers who in turn sold their products at inflated prices. See: The Nation. 13th September, 2002.

on national health insurance and the Ninth National Health Plan, but, more generally, shows the broader national focus of TRT health policy.[157]

As early as October 2001, Deputy Public Health Minister Surapong Suebwonglee announced that children under the scheme could have necessary vaccinations free of charge at both private and government-run hospitals to which they are registered. The possible vaccines include tuberculosis, tetanus, whooping cough, polio, hepatitis B, and encephalitis.[158] Cervical cancer tests were offered free under the Bt30 scheme. In 2006, the Bt30 medical-care scheme concentrated further on health promotion and prevention in the hope that more immunizations and screenings would reduce the cost of future treatments. To give an incentive for contracted healthcare units to achieve the goals of the policy implemented in 2005, the NHSO offered a reward to those meeting indices for vaccination coverage. In addition, the government launched campaigns to educate the public on mother and child health as well as HIV prevention.[159]

As a result, the NHSO reported in 2003 that the number of outpatients at hospital under the scheme had increased one per cent to 63 per cent, but the number of inpatients had dropped by 9 per cent. This figure suggests the number of patients with serious conditions decreased, stemming from them receiving earlier treatment.[160]

Contending Theories

The first contending theory is the "Thaksin factor". Specifically, these personality-based arguments posit that Thaksin's wealth, ambition, oratory skills, and business and marketing skills were the most important determinant of Thai Rak Thai's ideas and success. Were these same characteristics of Thaksin responsible for changes in healthcare policy? It seems difficult to prize the figure of Thaksin away from the 30-baht scheme. And in fact, both theoretically and practically, such an exercise is futile. First, as the leader of TRT, Thaksin's fate was inextricably linked to the party's. As opposed to the pre-1997 system, party leaders ran on the party list (though this was certainly not required). Thaksin was placed first on the TRT party list in both the 2001 and 2005 elections. Thus, institutional theories predict that Thaksin (along with the rest of TRT's

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[157] The Nation. 22nd April, 2002.
[158] The Nation. 13th October, 2001.
[159] The Nation. 4th January, 2006. "Focus on Prevention."
[160] The Nation. 31st July, 2003.

leadership) had every incentive to further the success of the party. Thus, whether Thais voted for Thaksin the person or TRT the party, is akin to asking whether Brits vote for Tony Blair or the Labour party.

We thus have a problem of observational equivalence. Thaksin was the first Prime Minister elected under the new constitution's rules, so the two competing theories occur at the same time as the phenomenon we observe—the initiation of the 30-baht scheme. Thaksin undoubtedly influenced the health policy process. Though he came up with neither the 30-baht system, nor the popular campaign slogan, he was actively involved in other aspects of the policy's implementation, especially its financing.[161] By and large, though, once the 30-baht ship set sail, Thaksin took a very hands-off approach. In some areas of health policy, in fact, he was unable to achieve his stated preferences. With regards to the merging of the CSMB with the 30-baht scheme (discussed above), Thaksin was rendered powerless despite his initial vows to merge the schemes. Indeed, it was the health experts within the party, most notably Dr. Surapong Sueblong, working in tandem with top bureaucrats that were responsible for the program's implementation and technical adjustments to ensure its success. Top bureaucrats say they saw little of Thaksin, and state that they had quite free reigns to ensure the success of the program. Indeed, Dr. Sanguan, the architect of the 30-baht scheme, says Thaksin's ambition and support were vital to its success (Nittayarampong 2005).

Thaksin's health policy influence was dedicated more to ensuring TRT respond to segments of society, and to gain credibility as policy innovators. For example, Thaksin, in response to AIDS NGO's, pushed to cover antiretroviral drugs, despite advice from key finance planners that it would bankrupt the 30-baht scheme.[162] One of the savviest political moves was the virtual hijacking of the universal health act, a piece of legislation that had been in the making for a number of years. The act was eventually passed in the legislature at the height of the 30-baht scheme, thereby gaining credit for TRT.

In sum, the 30-baht scheme was the joint effort of a number of TRT's party leaders, including Thaksin, with the technocrats in the MoPH. However, others have suggested that TRT was just a new type of party that Thailand had never seen before

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[161] Based on personal interviews with key implementers of the plan.
[162] Based on personal interviews with finance officials and AIDS NGO's.

(McCargo and Ukrit 2005). They would credit the 30-baht scheme to the innovative workings of the organization rather than a response to institutional incentives. To analyze this suggestion, I examine the only other party in power following the 1997 constitutional changes – the Democrat Party. Even though they were not elected under the new rules, we can get a sense that the new socio-institutional environment was leading them to make strategic decisions regarding the distribution of health resources.

The Democrat party headed the governing coalition (but not the health ministry) in the period 1997-2001. In addition, it was the largest opposition party throughout TRT's reign, and, in both their 2001 put forth a coherent health policy that differed from TRT's 30-baht scheme. In the 2005 elections, several observers accuse the Democrats of simply mimicking Thai Rak Thai policy in their campaign. To some extent this is true, since the huge success of the 30-baht scheme essentially rendered the party's 2001 health policy futile. However, such a sweeping assessment overlooks the significant change in the internal workings of the Democrat party in response to the new need to generate coherent and technical policies that would differentiate them from TRT.

First, the Democrats had already made significant moves toward decreasing the number of uninsured. Indeed, by 2001, the percentage of those without health insurance had dropped from a high of 45% in 1996 to 29% (Tancharoensathien 2004). This had been achieved by increasing those participating in the voluntary health card (VHC) scheme from 15.3% to 20.8% of the population, and also increasing those on medical welfare (FMSP) from 12.6% in 1996 to 31.5%. Undoubtedly, the Financial Crisis had led to a huge increase in the number of those eligible for these two programs. However, the Democrat party showed leadership and initiative in its implementation, despite criticism of inertia in many other areas and in spite of the minister of public health not being a member of the Democrat party. Expanding the health card scheme to all Thais was the basis of the party's 2001 health platform.

Table 6.6 shows the huge increase in budget dedicated to both the (VHC) and FMSP (medical welfare scheme). The VHC budget more than doubled between 1999 and 2000. Likewise, the Democrats increased the FMSP budget by 28% while in office.

Year	Voluntary Health Card	Free Medical Services Plan
1995	730,000,000	4,470,100,000
1996	625,000,000	4,816,900,000
1997	1,030,000,000	6,370,500,000
1998	1,080,000,000	7,029,000,000
1999	960,000,000	8,405,600,000
2000	2,400,000,000	8,910,100,000

Table 6.6 Amount of budget dedicated to medical schemes for the poorer segments of Thai society.
Source: Bureau of Health Policy and Plan

Revisiting the columns for the years 1999 and 2000 in 10, we can see that, similar to TRT, the Democrat party greatly reduced the investment portion of the MoPH budget. From 27.3% in 1998, the budget decreased to 15.2% in 1999 and then to 11.3% in 2000. The Democrat Party's commitment to broadening the distribution of health resources was what likely contributed to its success on the upper-tier list in the 2001 elections.

Following the Democrat party's loss in the 2001 elections, the party leadership went through a process of increasing the independent policymaking capabilities of the party. Harvard School of Public Health graduate and medical doctor, Burunaj Smutharaks, spear-headed the party's efforts. He had been instrumental in the drafting of the National health Act, but now turned his efforts to the creation of a health policy that could compete with TRT's. The party conducted numerous survey's to get a better sense of the people's needs and policy preferences related to health policy. At a superficial level, the policy resembled TRT's because it inevitably had to build off the 30-baht scheme. However, the final policy document, a 4-page statement, made clear distinctions in the technical details, as well as the method of financing.[163]

In sum, the Democrat Party responded to the new socio-institutional environment in advance of the 2001 elections by expanding health insurance to approximately 25% of the country. To achieve this they shifted resources from the investment portion of the

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[163] นโยบายสาธารณสุขพรรคประชาธิปัตย์ (Democrat Party Health Policy). 2005.

MoPH budget to the voluntary health card and free medical welfare programs. In addition, the Democrat party responded to their failure in the 2001 elections by proposing further broadening of the distribution of healthcare resources beyond that of the 30-baht scheme.

Unintended consequences: Politicizing the Urban-Rural Divide

I began this chapter arguing that the broader *districts* introduced in the 1997 Constitution interacted with Thailand's cross-cutting society to result in very broad *constituencies* in the post-1997 era. If, however, Thai social structure was to change along some dimensions while holding the institutions constant, the effective breadth of constituencies would necessary narrow. Such a change in social structure began to take place over TRT's tenure. As a consequence of the broad policies introduced by the TRT government, the urban-rural divide became increasingly pronounced in Thailand. Part of the reason is that broader distribution often translated into overtly pro-rural policies. However, most middle-class and upper-class Thais were comfortable with helping their rural brothers and sisters improve their financial situation. The problem came when there was explicit competition for resources between urban and rural areas. In advertently, the 30-baht scheme's financing method would pit urban and rural areas against each other.

While disparities had existed along the rural-urban cleavage ever since Thailand embarked on the path of industrialization, the cleavage had never become sufficiently salient as to shape political competition. No rural party had ever emerged in Thai history, despite the rural population constituting 70% of the country. The major reason that this divide remained politically latent is that the narrow districts of the pre-1997 era provided few institutional incentives for macro social groups to unite and create political parties. No real attempts had been made by any party to appeal to (or co-opt) the rural masses.[164] Recognition of the wealth disparity between urban and rural areas was widespread, but not politically salient.

With the broad districts of the post-1997 era, the institutional environment was no longer an obstacle, and indeed conducive to macro social cleavages. As TRT

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[164] Baker (2002) has a brief, but good discussion on the history of rural involvement in politics. A large reason, perhaps, that a rural party did not evolve was the blatant suppression of rural organizations in the 1970s and 1980s under the pre-text of national security.

implemented its array of policies, they increasingly were interpreted in the media (and by extension the urban middle class) as pro-poor, "populist" policies. The TRT government, however, had worked hard to ensure most segments of society were economically better off. In sync with the debt moratorium and rural-credit scheme, TRT had implemented mega projects to appease urbanites – a new national airport, a metro system, extensions to the sky train, etc. In addition, sound economic policies also eased any urban middle-class fears that TRT would attend to the rural poor to their detriment. The financing of the 30-baht scheme, however, was perhaps the first example of a TRT policy that explicitly pitted rural areas against urban areas. The original financing scheme put enormous financial pressures on many urban hospitals. Many lost years of savings, and some even went bankrupt. There were growing fears that doctors would leave, not for the rural hospitals as policymakers desired, but for the private sector and that access and quality of urban public hospitals would plummet.

Eventually, the decision was taken to change the financing method. Salaries of doctors and other medical staff would be paid first, and then the remaining funds would be divided up based on the population of catchment areas. This change essentially took health financing back to the original pro-urban method; rural hospitals felt betrayed. Rather than blaming TRT, however, rural areas interpreted this as urban areas forcing the government's hand.[165]

Other events followed in the ensuing years, which added to the salience of urban-rural divide. For example, attempts by TRT to decentralize education authority to local political power pitted the powerful Education Ministry and its massive human resource of teachers against local rural politicians eager to take control of education resources. These teachers protested in the tens of thousands, eventually joining up with the People's Alliance for Democracy (PAD) demonstrations in Bangkok that led to Thaksin's demise (Pye and Schaffar 2008).[166] This time, Thaksin was seen as unambiguously empowering rural political forces at the expense of urban bureaucrats. As the provocative Thailand editorial Chang Noi (Little Elephant) observed:

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[165] Based on personal interviews with doctors.
[166] Also see The Nation. January 17th, 2006. "Thaksin's a coward, Sondhi tell teachers."

Sondhi is appealing to a deep vein of middle-class fear. Bangkokians no longer have to worry about rural revolution, and have even been spared the sight of rural protesters cluttering up the Bangkok pavements (an unappreciated benefit of the Thaksin era). But they understand that, deep down, electoral politics is a battle over the command of resources, and that Thaksin's populism showed the rural mass was starting to gain a larger share.[167]

As their fearless leader (Thaksin) was increasingly vindicated in the press and by PAD demonstrations, rural residents interpreted TRT's failure to pass pro-rural policies as . The PAD anti-Thaksin protests in 2006 greatly polarized Thai society, and the elections held in April 2006 saw a clear rural-urban divide in terms of party choice for the first time in Thailand's history.[168] The down-spiral of events ended with the ultimate affront – the illegal removal of the rural poor's champion by the military while the Bangkok middle class remained silent. The point I want to underscore is that this polarization of Thai society along rural-urban lines would not have been possible under the pre-1997 institutional rules.

6.5 Conclusion

As the effective breadth of constituencies in Thailand significantly broadened following the 1997 Constitution, we witnessed a dramatic transformation in the breadth of the allocation of health resources. Whereas the pre-1997 era was characterized by the building of hospitals, the over-purchase of expensive medical equipment, and rampant corruption, the post-1997 era witnessed a much broader distribution of health resources. Specifically, access to health resources was extended to a much larger proportion of the population via the 30-baht health scheme. As part of the scheme, financing methods were transformed, initially distributing the budget evenly throughout the country based on population size. Hospital building was severely curbed to help finance universal

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[167] Chang Noi. November 27th, 2006. "Giving up on democracy."
[168] Comments by Royal Thai Ambassador to the United States highlighted the rural-urban divide as a legacy of the Thaksin era. Conference with faculty and graduate students at the University of Michigan, March 13th, 2008.

insurance, and more emphasis was placed on preventative care and health promotion. In sum, after 1997 we witness political parties trying to cater their health policy to the entire country. This broad allocation of resources stands in stark contrast to the narrow targeting of goods to geographic districts prior to 1997.[169] This account has traced how Thai political parties changed allocation decisions in response to the socio-institutional environment. Post-1997 we see very different internal party mechanisms, including attempts to establish independent policy arms.

I also expect to see different internal party mechanisms and voter behavior in Mauritius, were they to change their electoral rules to be similar to Thailand's in post-1997 era. However, in contrast to the incentives for broader constituencies we saw in Thailand, Mauritius' high level of ethnic diversity would result in effectively narrower constituencies. Indeed, the higher the proportion of total seats that the PR tier constitutes, the greater the incentives for ethnic parties to form.

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[169] This is not to say that there were no good public health policies and/or projects in the pre-1997 era, just that the socio-institutional environment greatly hampered the ability to pass them.

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Chapter 7: Conclusion

7.1 Summary of Findings

      I began this dissertation wanting to understand the divergence in human development performance that we observe among developing democracies. Why are some governments so much better at providing health and education to their citizens than others, *ceteris paribus*? Focusing on the strategies of elected politicians, I set out trying to resolve two literatures that failed to embrace each other. Specifically, I developed a theory that sought to explain how electoral rules function *conditional* on their social structure. Studying the developing world enabled me to analyze a set of cases with much more variety in social structure than the European set of democracies commonly used to explore the effects of political institutions. After enriching our conceptualization of ethnic diversity along three characteristics of social structure—ethnic fractionalization, ethno-geographic cross-cuttingness and ethno-income cross-cuttingness—I built a systematic theory of the effect of one electoral feature: the average representation proportion (ARP).

      Existing studies have emphasized theoretically, and confirmed empirically, that increasing ARP (mostly using district magnitude as a proxy) leads to an increase in public goods provision, such as health and education. This dissertation has, thus, made an important contribution to this literature: this finding depends on the underlying social structure. First, this positive effect of ARP only holds in ethnically homogenous countries, i.e. countries with few ethnic groups. Furthermore, I found that this positive effect diminishes in countries that have high levels of ethno-income cross-cuttingness.

      These hypotheses proved helpful in explaining the constitutional changes undertaken in Thailand in 1997. Prior to the changes, Thailand employed a majoritarian system with hundreds of small districts. As such, politicians had few incentives to cater policy to broad, national districts. Health provision, accordingly, was underprovided in

this period. Following the introduction of an upper tier in 1997, wherein Thais voted for parties in a single, national district, the incentives to direct policy toward the nation at large significantly increased. Thai parties began to be policy-oriented for the first time in Thailand's democratic history. The most successful of these parties was Thai Rak Thai, who devised a universal health insurance program, sweeping the first polls held under the new constitution in 2001.

In countries with many ethnic groups, my theory has very different predictions. First, I rely on the logic of ethnic headcounting (Chandra 2004), arguing that voters in such societies seek to maximize the representation of their group in the legislature. Therefore, in the calculation of their voting strategies, citizens analyze the geographic distribution of ethnic groups; more precisely, voters consider the way in which boundaries are drawn around ethnic groups and the implications that has on the ability of their co-ethnics to get elected. Thus, the effect of ARP further depends on the level of ethno-geographic cross-cuttingness, my proxy for the likelihood that boundaries cross-cut ethnic groups. Where ethnic groups are concentrated in their own regions, I hypothesize that ARP has no effect on public goods provision. However, where ethnic groups have a medium-to-high level of ethno-geographic cross-cuttingness, ARP actually reduces the provision of health and education (though for different reasons at each level of EGC).

Again, this enriched understanding of how electoral rules function in different societies informed my analysis of public goods provision in Mauritius. Specifically, it explained the puzzle of why Mauritius was so much more successful in the provision of public goods than Thailand, despite having the same set of electoral rules (small, majoritarian districts). First, because of the high salience of ethnicity in Mauritius and the high number of ethnic groups, voters seek to maximize their group's representation in parliament. However, given the geographic distribution of ethnic groups, no group is certain of winning a majority and forming the government. Thus, at the national level, party leaders have incentives to seek out support from other ethnic groups. Given the geographic distribution of groups, however, the largest group (the Hindus) is unable to rely on a single ethnic group for electoral victory. Indeed, the combinations of victory are many and varied at the district level. In short, party leaders have no choice but to construct broad, multi-ethnic parties and allocate resources broadly across the nation.

In addition, the theoretical framework informed the analysis of proposed changes in the electoral rules in Mauritius. Specifically, the proposed compensatory PR model would lead to the proliferation of ethnic parties. The same would be true with the introduction of an upper tier representing 30% of the legislature, though to a much lesser degree than a completely PR system. In short, as predicted, an increase in ARP is more likely to lead to narrow, ethnic constituencies in Mauritius.

Finally, I found strong support for most of my hypotheses in a large-N quantitative analysis that looked at the health and education outcomes in 43developing democracies in the period 1970-2000.

7.2 Implications for Constitutional Engineering

Many countries have changed their political institutions, including their electoral rules, over the past decade or so. This phenomenon represents a desire to induce better government along a number of democratic principles of importance to such countries, including fairness, accountability, efficiency, and social harmony. This dissertation has particular implications for the latter of these possible goals—social harmony—in that it has produced a more nuanced understanding of "diverse" societies. In addition, the findings of this chapter have significant consequences for countries seeking either to improve the efficiency of resource allocation, improve the standards of human development, or both. For such countries interested in maximizing either of these two goals, this dissertation provides a superior theoretical framework with which to begin such an undertaking. Constitutional engineering inevitably requires the sacrifice of some goal or another, and always involves sensitivity to a number of local conditions in addition to the macro social structure. However, as far as those country-specific conditions remain a black box, we will be unable, as academics or policymakers, to compare experiences, and ultimately perfect the "science" of institutions.

7.3 Implications of this theory for other areas of study

As mentioned in the introductory chapter, my theory has implications for at least two other major strands of literature. First, the theory sheds light on the debate between the Centripetal and Consociational Schools of Thought in the ethnic conflict literature. Indeed, interestingly, Mauritius is one of the two cases (the other being India) that Lijphart cites as somewhat anomalous to the PR=consensus rule.[170] While the Centripetal school argues clearly against the PR electoral rules advocated by the Consociational school, neither school believes that majoritarianism is a possible solution to ethnically diverse societies. My theory, then, advocates a re-evaluation of this debate, urging a more systematic exploration of ethnically diverse societies and the way in which electoral rules lead to cross-ethnic voting. Possible dependent variables in future studies, then, include riots and other measures of ethnic conflict, democratic stability and other measures of ethnic cooperation.

A second area of study for which my socio-institutional theory has implications is the study of party nationalization. In existing literature, party nationalization has been defined as the extent to which coalitions have broad, national constituencies (Chibber and Kollman 2004; Hicken 2008). This definition, then, is similar to the term constituency breadth from the institutions literature, which I use in this dissertation. Indeed, party nationalization could be construed as the intervening mechanism in my theory. As such, substituting party nationalization as the dependent variable in the quantitative analysis would both lend credibility to this dissertation, as well as make a valuable contribution to the party nationalization literature.

7.4 Future Advances in the Study of Electoral Rules

This dissertation makes a modest contribution to our understanding of how electoral rules affect the strategies of politicians and voters in democracies. However, it is only the beginning of a more comprehensive socio-institutional theory of electoral

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[170] India would be an interesting case to study with which to extend this analysis qualitatively in future work. Indeed, within India, there is richer variation at the state level elections.

rules. First, there are other characteristics of social structure we could explore, such as the remaining indices of cross-cuttingness presented in Chapter 2. Jusko (2008) explores the geographic distribution of the rich and poor in European democracies. Using my index of income-geographic cross-cuttingness, could not only provide an additional test of Jusko's study, but extend the analysis beyond Europe. This dissertation, also, is limited in its scope to developing democracies. Applying my theory to advanced industrial countries (AICs) would be an important test of its validity. However, health and education outcomes are likely inappropriate for such countries. A common proxy of allocation breadth in the AICs is social welfare spending, which might enable an analysis of all democracies. I found data on spending variables in developing democracies, however, to be limited. On that note, I remind the reader that my indices of cross-cuttingness are also limited in their geographic scope at present. As more data becomes available, the conclusions from the tests in this dissertation should be verified. Lastly, this dissertation has put aside the story of other institutional features, including other electoral rules and constitutional features, such as executive dominance (parliamentary vs. presidentialism) and federalism.

All the suggestions in this and the previous section represent a future research agenda for me as I seek to improve our understanding of the way in which political institutions operate in the context of the underlying social structure. To this end, my dissertation represents a first step forward.

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