

POLITICAL AND ECONOMIC INEQUALITY

INSIGHTS FROM PHILIPPINE DATA ON POLITICAL DYNASTIES

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There is an extensive empirical literature on economic inequality, yet few studies examine its political underpinnings. This article contributes to the nascent literature in this area by developing and analyzing a new measure of political inequality. Drawing on a comprehensive provincial-level dataset on local government leadership in the Philippines, this article develops a political inequality index based on the concentration of elective positions among political dynasties. It then empirically examines the possible links among economic inequality, political inequality, and development outcomes across Philippine provinces. This study finds that economic inequality displays a nonlinear relationship with indicators of human development—there is a positive correlation at lower levels of human development, and a negative correlation at higher levels. On the other hand, unlike economic inequality, political inequality seems to be associated with weaker development outcomes, regardless of the level of development the province is in. This finding emphasizes how future research on political inequality could yield new insights into the persistence and depth of poverty, human development, and other forms of social and economic inequality.

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INTRODUCTION

Inequality has become a key research area in recent years, fueled in part by the growing concern over persistent economic divides within and across countries, industrialized and developing alike. BREXIT, the 99% movement following the global economic crisis, growing anti-immigrant sentiment notably in advanced economies, and the rise of populism and economic protectionism in various parts of the world are only some of the recent phenomena that appear to be linked in some way to inequality.

Some of the main branches of economic inquiry have tried to examine its root causes, as well as its possible consequences, notably in terms of future growth and development. Advances in research—often spurred by innovations in measurement and theory—have also guided new thinking here.¹ For instance, whereas inequality was seen as an unavoidable ingredient of growth in the earlier stages of international economic reform,² more recent thinking emphasizes instead its detrimental effects on long-run growth and development.³ This literature has capitalized on advances in measurement, allowing empirical analyses of economic inequality (and more recently human development and other forms of inequality) both across and within countries. There appears to be an emerging consensus that the drivers of economic, and other forms, of inequality are multidimensional and context-specific, including factors such as advances in technology in industrialized countries (in part eroding the economic gains of less-skilled labor), and chronic lack of access to education, health and social protection by large groups of the population in many developing countries (in turn leaving them marginalized even as urban centers of growth produce a rapidly growing middle class in these countries).⁴

Nevertheless, a disproportionate focus on economic drivers (and consequences) of inequality appears to have downplayed other important dimensions of this phenomenon. Fortunately, other fields have begun to deepen our understanding. There has been growing interest in the conceptualization and measurement of political inequality, with direct consequences on our understanding of economic and other forms of inequality and their possible causes and consequences.

Political inequality refers to the “structured differences in the distribution and acquisition of political resources” among citizens; and political resources

are a “dimension of social stratification including the ability to influence both governance processes and public policy.”⁵ In principle, citizens have equal opportunities to engage in political life, vote in free and fair elections, understand and engage the workings of the political system, and shape the public policy agenda in democratic settings. Yet, in practice, citizens’ relative capabilities to engage in political life and discourse, and their relative influence on policymaking, could be disproportionately skewed in favor of certain groups, notably relatively wealthier groups.⁶

The wealthy can exercise disproportionate influence on policymaking by dominating media and political parties, by being able to afford more sustained engagement in political life (as candidates for office or as voters with particularistic agendas), and by being able to gain access to enough information and knowledge from which to base their political engagement, all relatively more effective compared to the average citizen.⁷

Economic inequality could, therefore, be linked to political inequality in important ways. Solt, for example, argues that poverty and economic inequality imply lower political engagement for the vast majority, except for the relatively wealthy in society.⁸ This situation, in turn, feeds greater political inequality. Beaumont notes how disparate access to education could exacerbate early political advantages, creating a stratifying effect on young people’s access to political resources.⁹ Moreover, gender aspects and institutional design could also exacerbate political inequality.¹⁰

Put simply, economic and other forms of inequality are also often the result of political decisions, and these could be addressed, in principle, by political action and policy reform. Nevertheless, if public policy-making and overall governance processes are biased in favor of the wealthy and more politically connected, then it is possible that economic inequality merely mirrors deeper political inequality. Ascertaining this link is the subject of nascent empirical research that hinges on effectively measuring political inequality.

This article contributes to this emerging strand of literature by proposing a unique measure of political inequality that focuses on the concentration of political power in the hands of a few politicians; notably, those that belong to powerful political families. Using a unique provincial-level dataset on local government leadership in the Philippines, this study develops a political inequality index based on the concentration of elective positions among

political dynasties (i.e., members of a political clan occupying elective positions across time and across political levels in the local government). This measure is then used to test initial hypotheses on the possible links with other socio-economic and inequality indicators across Philippine provinces.

Our initial findings suggest that political inequality, unlike economic inequality,¹¹ displays a negative relationship with development. Economic inequality in itself is not necessarily problematic for growth and development. However, when this inequality hits a certain threshold combined with political inequality, the forces exacerbating inequality could also be limiting the relative political voice and economic participation of a large section of the population, resulting in weaker development outcomes. Further exploring the empirical linkage between political and economic inequality is an interesting area for expanded study.

DATA

Dahl acknowledges the difficulty of measuring political (in)equality in the context of the United States in this way:

“Achieving truly well-grounded judgments about the future of political equality in the United States probably exceeds our capacities. One reason is that, unlike wealth and income, or even health, longevity, and many other possible ends, to estimate gains and losses in political equality we lack cardinal measures that would allow us to say, for example, that ‘political equality is twice as great in country X as in country Y’. At best we must rely on ordinal measures based on judgments about ‘more,’ ‘less,’ ‘about the same,’ and the like. Sometimes we can also arrive at solid qualitative judgments that are themselves based on quantitative indicators, as with changes that occurred when groups previously excluded, such as workers, women, and African Americans gained the franchise and other important political rights.”¹²

Other scholars suggest rough approximations, such as participation rates in politics and politically relevant associations, disaggregated by parameters such as class, race or ethnicity, and gender. Or perhaps the alternative measures to look at: include the results of political participation, such as poverty incidence, measures of social exclusion, and divergence in education quality.¹³

More recently, Acemoglu et al. leveraged their analysis of political inequality by turning to measures of concentration of political power.¹⁴ Turning to data on municipal mayors in Cundinamarca, Colombia, during the period from 1875 to 1895, these authors developed an index of political concentration reflecting the extent to which political office holding was monopolized by certain individuals or families. They then assessed how this measure compared to the inequality in landholding (i.e., land gini) in the same region. De facto, they analyzed how political and economic inequality could be empirically related.

They found initial positive correlations between the land gini and stronger development outcomes (i.e., higher levels of primary and secondary school enrollment). On the other hand, they also uncovered negative correlations between political inequality (i.e., concentration of political office holding among certain individuals and families) and schooling outcomes.

While they did not establish causality, they nevertheless noted that these correlations may help dispel previously held notions that land inequality (a common measure of economic inequality) may not necessarily be linked to poor development outcomes. These authors hypothesize that powerful and rich landowners may have provided checks against the anti-developmental tendencies of politicians. On the other hand, where politicians virtually monopolized the political landscape (as measured by the political concentration variable), the subsequent development outcomes were unambiguously poorer.

Recent empirical research on political dynasties in the Philippines has shed further light on political inequality. Using public finance data from 2001 to 2010, Atkinson, Hicken, and Ravanilla (2015) empirically analyzed Philippine legislators' allocations of post-typhoon reconstruction funds to municipal mayors.¹⁵ Rather than poverty or demand for relief, clan ties appeared to be the key variable influencing the flow of reconstruction funds channeled by legislators to municipalities.

Clan influence on public finance allocations could further exacerbate their hold on political power, and more family members occupying elective positions with influence over public finance simply reinforces how entrenched they have become. Mendoza et al. developed one of the most comprehensive datasets on political clans, allowing them to empirically examine the relationship between political dynasties and poverty in Philippine provinces using data from 2001 to 2013.¹⁶ They found empirical evidence showing that more political dynasties

in Philippine provinces are associated with deeper poverty incidence—an empirical relationship that is larger especially among provinces that are farther from Manila, the country’s economic and political center.

Drawing on the work by Acemoglu and colleagues, and building on seminal empirical literature on the development consequences of political dynasties in government,¹⁷ this study develops a unique measure of political inequality based on Gini coefficient, an index developed to characterize the extent of inequality of the distribution of political power among the elected officials. It adds to the existing measures by designing and constructing the “political gini” as an indicator of inequality in political power among elective officials. The Gini coefficient is a powerful statistical measure of inequality of a distribution, often used to describe income and economic inequality. It is calculated as the ratio of the area above the “Lorenz curve” of the distribution and the area under the line of the uniform distribution. “Lorenz curve” is derived from plotting the cumulative percentage of people against the cumulative share of income earned. The same concept is applied to the distribution of political power to come up with a proxy measure of political inequality.

EMPIRICAL ANALYSIS

Political Dynasties

Measures to describe clan dominance in politics could help improve our understanding of the Philippines’ complex political landscape and its compelling role in development. Two established measures have successfully described the dominance of political clans, which in turn demonstrates detrimental links with development. The first measure is the share of dynastic politicians among the total local government leadership positions within each Philippine province.¹⁸ A dynastic politician is identified as an elected official who has immediate relatives that were elected either in the current or past elections. As defined in previous research, a family identification approach is used to ascertain kinship relations. Essentially, last names are first matched, then these linkages are reviewed to clarify actual family links.¹⁹ The procedure is the standard approach in the literature.²⁰ Dynastic share provides a rough measure of the dominance of dynastic politicians within a province. However, some limitations of this

method are worth briefly noting. First, the formula may not cover kinship relations that can extend beyond consanguinity, such as relations that are associated with an extended family setup. Second, the approach does not yet consider how some political clans have successfully fielded national and other-provincial candidates, further emphasizing their political clout and success. For these reasons, our estimate is likely a lower bound of the true possible political clan dominance in the country.

On the other hand, the share of the largest dynastic clan in the provincial government describes clan control based on the extent of the ruling of the most dominating clan. This is a relevant indicator in the Philippines, because certain political clans have expanded dramatically and the magnitude of their dominance might be an important determinant of development outcomes. Conversely, worsening socioeconomic conditions might have triggered patron-client relationships, which then could have maintained and exacerbated these clans' monopoly of political power.

Together, these two measures provided evidence that showed how political dynasties are associated with deeper poverty. To help illustrate, in 2016, one political family, the Ecleos (located in one of the poorest provinces of the Philippines, Dinagat Islands), includes a governor (the family matriarch), a vice governor (one son of the governor), three mayors (all children of the governor), plus additional relatives occupying one vice mayoral seat, one seat in the provincial board, and two seats in the city council. Altogether, this one family occupies only 12 percent of the total positions in this province, but they occupied virtually all the top elective positions.

Figures 1, 2, and 3 provide illustrations of the local government leadership data available for three Philippine provinces, Dinagat Islands, Maguindanao, and Masbate using data from 2016.

Another interesting lens to examine is the equality of the distribution of political leadership. To what extent does concentration of political power skew toward competing dynastic clans within a jurisdiction? Does this limit the relative political voice of the large portion of the population? How does this shape the landscape of the political and socioeconomic development of a province? Equality in terms of political and governance power, much like equality in the distribution of wealth and economic resources is an essential element to achieving fairness that promotes development.

Dynastic and Non-Dynastic Elected Officials (2016)

Province of Dinagat Islands

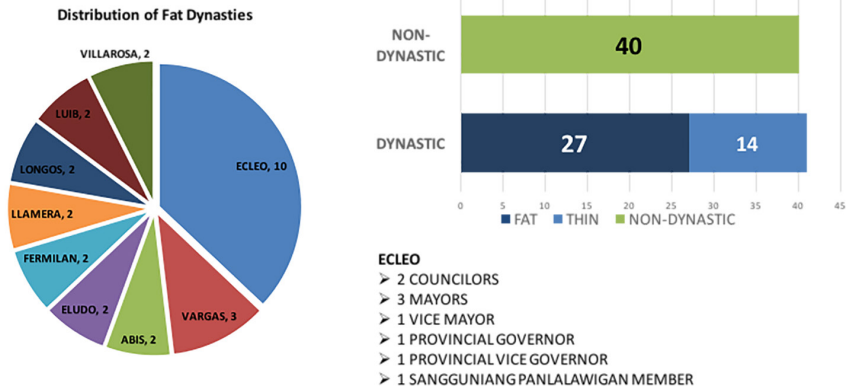


Figure 1: Local Government Leadership in the Philippine Province of Dinagat Islands.

Source: Authors' calculations based on data developed by Mendoza et al (2012, 2016).

Dynastic and Non-Dynastic Elected Officials (2016)

Province of Masbate

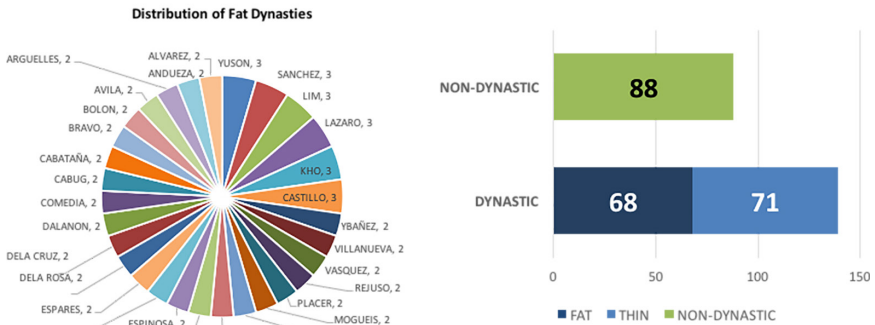


Figure 2: Local Government Leadership in the Philippine Province of Masbate.

Source: Authors' calculations based on data developed by Mendoza et al (2012, 2016).



Dynastic and Non-Dynastic Elected Officials (2016)

Province of Maguindanao

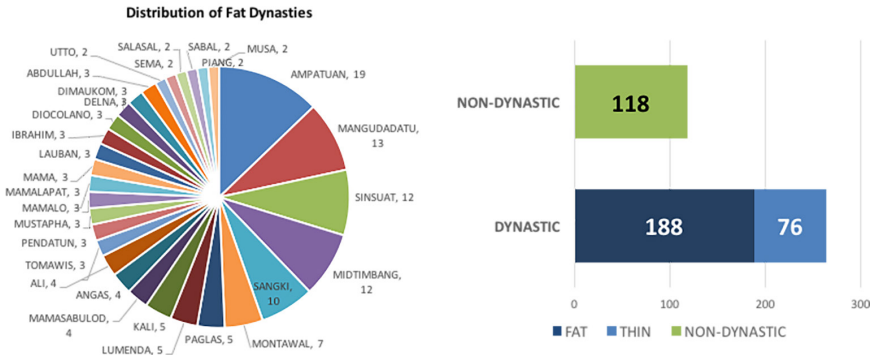


Figure 3: Local Government Leadership in the Philippine Province of Maguindanao.

Source: Authors' calculations based on data developed by Mendoza et al (2012, 2016).

Measure of Political Inequality

To study the distributional property of clan leadership within a jurisdiction, we explore the analytical power of the Gini coefficient to estimate political gini. Clan participation in politics is measured by counting the number of family members in the past or present election cycle. For instance, a dynastic clan with two kin in the current election term and two members in the past three election cycles has a corresponding value of 4. Then equality of distribution of clan dynasties is measured by calculating the Gini coefficient in a population with values $y_i, i = 1$ to n , as the number of elected clan members that are indexed in non-decreasing order ($y_i \leq y_{i+1}$):

$$G = \frac{1}{n} (n+1) - 2 \frac{\sum_{i=1}^n (n+1-i) y_i}{\sum_{i=1}^n y_i}$$

For instance, there are 3 clans occupying 9 different positions in province Y. If y_1 represents the number of members for clan 1, say 2; $y_2 = 3$ represents the

number of members for clan 2 and $y_3 = 4$. Then the Gini coefficient is calculated as:

$$G = \frac{1}{3}(3+1-2) \frac{(3+1-1)2 + (3+1-2)3 + (3+1-3)4}{2+3+4} = 0.15$$

The measure then provides an estimate of the overall distribution of clan dominance within the specified jurisdiction/province. The Gini coefficient as an instrument to estimate inequality focuses on the dispersion of values rather than on mere average, which is unrepresentative of the entire distribution of the population. We explore this advantage to establish the potential of political gini in representing inequality in political realms.

An overview of the general distribution of leadership in the local politics of the Philippines is described by Figure 4. From here, we can deduce that the top 28 percent most dynastic clans have monopolized nearly 50 percent of the

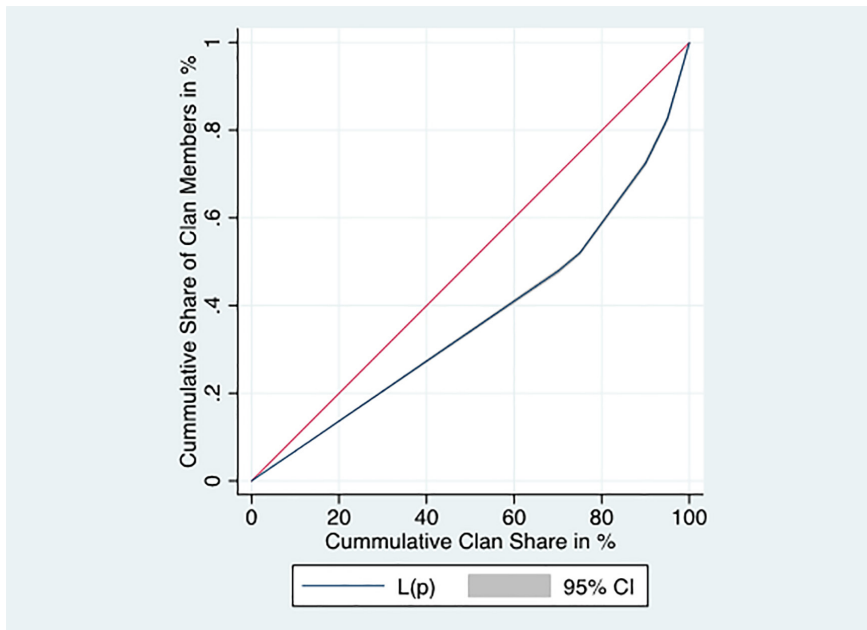


Figure 4. Lorenz Curve of Clan Participation in Local Politics from 2004 to 2013.

Source: Authors' calculations based on data developed by Mendoza et al. (2012, 2016).

electoral seats from 2004 to 2013, represented by the blue dashed lines. Most prominent are the Ampatuan, Midtimbang, Sinsuat, Sangki, and Mangudadatu clans all from Maguindanao, having sixty-four, twenty-five, twenty, eighteen, and sixteen kin respectively. Other dominant clans include the Balindong clan of Lanao del Sur, Ecleos of Dinagat Islands, Sisons from Pangasinan, Tans of Western Samar, and Valeras of Abra.

We now perform association analysis between the dominance of political dynasties and the equality of political leadership distribution. We examine the relationship among dynastic share, largest dynastic clan share, and political gini. The data from 2007 to 2013 elections suggest a very strong positive correlation between political gini and dynasty share. The direction of the linear association between political gini and the largest dynastic clan share is also positive. See Figures 5 and 6.

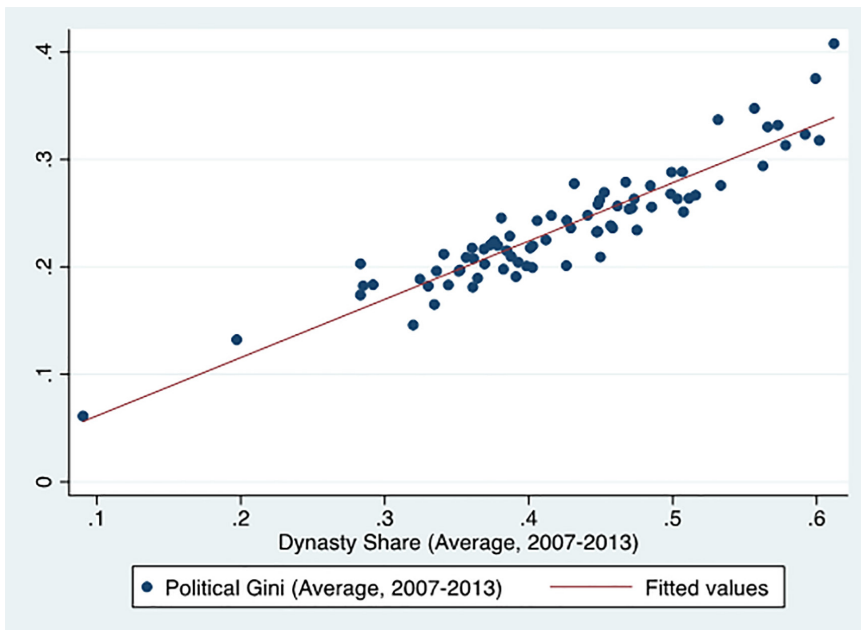


Figure 5: Cross Plot between Dynasty Share and Political Gini.

Source: Authors' calculations based on data developed by Mendoza et al. (2012, 2016).

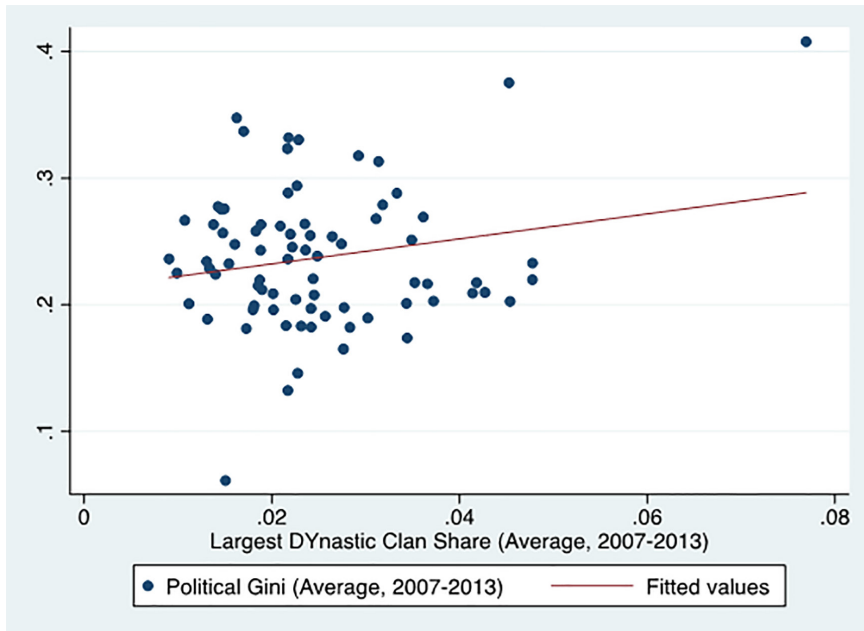


Figure 6: Cross Plot between Largest Dynastic Clan Share and Political Gini.

Source: Authors' calculations based on data developed by Mendoza et al. (2012, 2016).

These results show that more unequal leadership distribution in local politics is characterized by more dynastic politicians and flourishing political clans. An essential policy implication of this result might suggest that to establish a greater balance in political leadership, it is imperative to regulate political dynasties. This, however, does not necessarily mean that if a province has a higher dynastic share compared to another province, it will also have more unequal leadership distribution.

Take, for instance, Cagayan province which has a percentile rank of 74 percent in terms of dynastic share. However, if we examine its political gini measure, it is only at the 54th percentile mark. Measuring inequality in absolute terms, such as calculating the dynastic clan share, does not necessarily capture the full extent of inequality. Hence, we argue that our new measure captures nuances that better fit the narrative of political inequality that we are trying to establish.

Links between Inequality and Socioeconomic Outcomes

Now that we have established the new measure, we begin analyzing the behavior of the various socioeconomic indicators at different levels of political inequality. We used the K-means cluster analysis to find inherent groupings among all indicators.²¹ Provinces are partitioned into K groups using an algorithm introduced by Hartigan and Wong (1979). The algorithm groups provinces by combining observations with a minimum sum of squares together. The objective function of the sum of squares is calculated as, $SS(k) = \sum_{i=1}^n \sum_{j=1}^p (x_{ij} - \bar{x}_{jk})^2$, where x_{ij} is the value of the jth variable for the ith observation, \bar{x}_{jk} is the mean of the jth variable for the kth cluster. The variable represents the different indicators that were included in the clustering algorithm such as middle-class shares, distance from Manila, poverty incidence, unemployment rate, IRA dependency, and mean years of schooling. Then the optimal number of clusters was identified using the R package “NbClust,” which provides thirty clustering validity indices to evaluate the ideal number of clusters and provide relevant insights on how many clusters are hidden in the data.²² Applying this

Table 1 Descriptive Statistics of Provinces with Poorer Socioeconomic Outcomes, Cluster 1

<i>Variable</i>	<i>No. of Provinces</i>	<i>Mean</i>	<i>Standard Dev.</i>	<i>Coefficient of Variation</i>	<i>Min</i>	<i>Max</i>
Middle Class Share	51	0.10	0.03	0.33	0.02	0.17
Distance from Manila	51	920.25	449.90	0.49	183.15	1689.20
Poverty Incidence	51	35.71	8.97	0.25	18.58	63.50
Unemployment Rate	51	6.55	2.73	0.42	0.35	12.65
IRA Dependency	51	0.85	0.08	0.09	0.63	0.98
Mean Years of Schooling	51	7.92	0.79	0.10	5.65	9.15

Source: Authors' calculations.

algorithm to our data revealed two distinct clusters, $K = 2$. The first cluster consists of fifty-one provinces, while the second contains only twenty-seven. An examination of the socioeconomic outcomes clearly distinguishes the first cluster from the second. Cluster 1 is generally characterized by a much lower share of the middle-class, more provinces with high poverty incidence, higher fiscal dependence to the state, and poorer educational outcomes. Provinces included in cluster 1, in general, have poorer socioeconomic conditions.

Initial cross plots also show the possible relationship between economic inequality, proxied by income gini (i.e., Gini coefficient calculated at the Philippine province level) and the various socioeconomic outcomes of Philippine provinces²³ in 2009 to 2015 (see Figures 1 to 4 of the Appendix).²⁴

All correlations reveal contrasting directions of association among the two clusters, except for the unemployment rate, which exhibits a very weak linear relationship. As economic inequality increases in cluster 1 provinces (i.e., those with poorer socio-economic conditions), there is a growing number of the

Table 2 Descriptive Statistics of Provinces with More Developed Socioeconomic Outcomes, Cluster 2

<i>Variable</i>	<i>No. of Obs.</i>	<i>Mean</i>	<i>Standard Dev.</i>	<i>Coefficient of Variation</i>	<i>Min</i>	<i>Max</i>
Middle Class Share	27	0.19	0.05	0.29	0.11	0.33
Distance from Manila	27	402.16	398.80	0.99	22.03	1534.89
Poverty Incidence	27	16.57	7.42	0.45	5.40	30.70
Unemployment Rate	27	7.36	3.22	0.44	1.30	12.55
IRA Dependency	27	0.79	0.13	0.17	0.49	0.98
Mean Years of Schooling	27	9.36	0.60	0.06	8.30	10.80

Source: Authors' calculations.

middle class, declining poverty incidence, and higher educational achievements. On the other hand, increasing inequality worsens these same conditions for already more developed provinces.

This pattern appears to validate much earlier thinking on inequality. Kuznets, for example, argued that as countries develop, inequality first increases, then eventually decreases after a certain level of development is achieved.²⁵ Mixed empirical evidence of this conjecture has been investigated by various research in the past. The underlying reasons for such behavior have been intensively explored. Kuznets himself hypothesized that the structural pattern was because of a dual economy characterized by a switch from agricultural to industrial sector. As society industrializes, urbanization takes place and rural laborers begin to migrate to urban centers to seek better-paying jobs that result in an influx of inexpensive labor among the working class. The process escalates income inequality but as development continues and after a certain level of average income is reached, the same economic inequality is expected to decrease. We do not infer causality in this analysis, but the possible explanations are intriguing. One is that economic inequality is not necessarily detrimental to development, notably in low development areas, so long as it does not become “excessive.”

An analysis of the link between political and economic inequality further uncovers negative associations, as shown in Figure 7.

This result seems to contradict the naïve view that political and economic inequality go hand-in-hand (i.e., higher economic inequality is accompanied by higher political inequality). The generally negative correlation between the

Table 3 Correlation Coefficients of Socioeconomic Outcome Indicators with Economic Inequality

<i>Indicators</i>	<i>Cluster 1</i>	<i>Cluster 2</i>
Middle Class Share	0.4227	-0.1429
Poverty Incidence	-0.1493	0.5145
Unemployment Rate	0.0444	0.1888
Mean Years of Schooling	0.5002	-0.2665

Source: Authors' calculations.

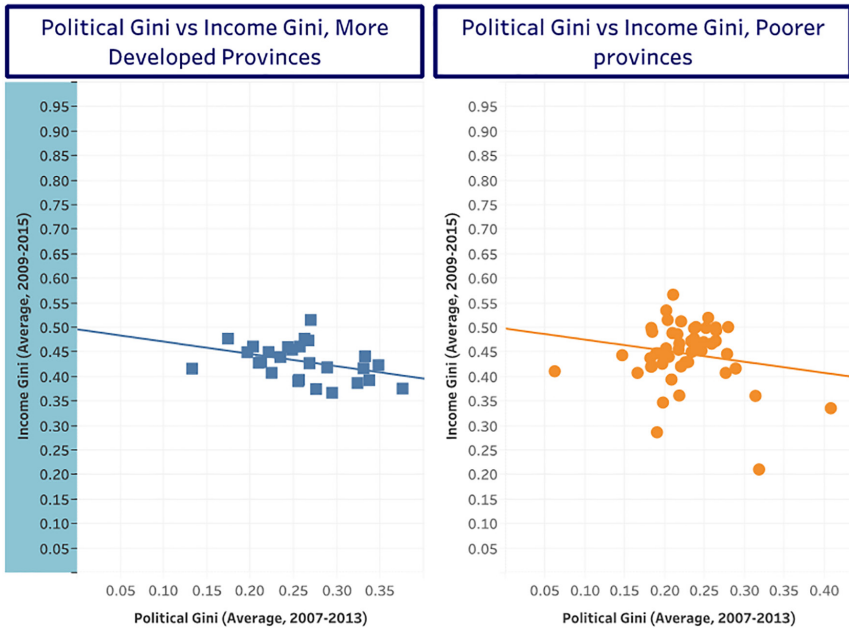


Figure 7: Income Gini (2009–2015) Plotted against Political Gini (2007–2013), Philippine Provinces.

two coheres with the findings of Acemoglu, et al.²⁶ They argued that these dynamics are most commonly observed in jurisdictions with relatively weak institutions. Land and business interests—as signaled by some degree of economic inequality—sometimes provide a useful counterbalance against anti-developmental tendencies of politicians enjoying near monopoly of political power.

As noted earlier, Acemoglu and Robinson (2002) argued that political factors and institutional transformation are critical in better understanding these shifting patterns of inequality.²⁷ Along with powerful changes in the economic landscape, the political and institutional underpinning of growth and development could also be shifting. Here we turn to our novel indicator of political inequality to examine these patterns.

Unlike those for economic inequality, the correlation results involving political inequality appear to point to a generally negative impact on middle-class

Table 4 Correlation Coefficients of Socioeconomic Outcome Indicators with Political Inequality

<i>Indicators</i>	<i>Cluster 1</i>	<i>Cluster 2</i>
Middle Class Share	-0.3580	-0.0921
Poverty Incidence	0.3560	0.0920
Unemployment Rate	0.1918	-0.0616
Mean Years of Schooling	0.2248	-0.2116

Source: Authors' calculations.

growth (see Table 4). Political inequality also appears associated with higher poverty. Higher political inequality is linked to worsening unemployment, but only in relatively less developed jurisdictions. It is also linked to improving schooling, but only in less developed jurisdictions. Here it is possible that greater political inequality is associated with slightly improved public services like education, notably when these can be attributed to them politically and contribute to their reelection.²⁸ However, worsening political inequality could crowd out private sector investments (largely because of their extractive economic policies), and therefore make the association with unemployment detrimental. In the case of the Philippines, improvements in education without concurrent improvements in job prospects could easily lead to widespread resentment and political volatility, if it were not for the migration option.

A slightly more formal empirical assessment of the links across political inequality indicators and our socioeconomic outcomes of interest, using regression analysis, reveals fairly similar results. What is interesting here is that the political inequality variable generally tends to be more robust in its impact. When taken together, these results seem to suggest that political inequality could be generally detrimental to development, in both poorer and more developed jurisdictions. Put succinctly, there is no “upside” to worsening political inequality.

What drives these results on the political inequality variable? It is possible that large political clans in power could tend to govern with impunity and little accountability—and their ability to dominate in elections is largely unaffected, even by their poor performance in promoting broad-based and

Table 5 OLS Regression for Socioeconomic Outcomes in Provinces with Poorer Development

<i>Dependent Variable: Middle Class Share</i>				
	(1)	(2)		
Political Gini	-0.240 (2.68)**	-0.188 (2.30)*		
Distance from Manila		-0.00003 (3.46)**		
_cons	0.155 (7.53)**	0.172 (8.47)*		
R ²	0.128	0.302		
N	51	51		
<i>Dependent Variable: Middle Class Share</i>				
	(1)	(2)		
Political Gini	63.447 (2.67)*	50.871 (2.29)*		
Distance from Manila		0.008 (3.15)**		
_cons	21.442 (3.91)**	17.051 (3.261)*		
R ²	0.127	0.277		
N	51	51		
<i>Dependent Variable: Middle Class Share</i>				
	(1)	(2)	(3)	(4)
Political Gini	-3.509 (1.62)	-2.160 (1.10)	-1.668 (0.86)	-1.668 (0.86)
Income Gini		5.982 (3.78)**	5.372 (3.39)**	5.372 (3.39)**
Distance from Manila			-0.000 (1.79)	-0.000 (1.79)
_cons	8.712 (17.41)**	5.736 (6.35)**	6.259 (6.73)**	6.259 (6.73)**
R ²	0.05	0.27	0.32	0.32
N	51	51	51	51

Source: Authors' calculations.

Note: * $p < 0.05$; ** $p < 0.01$; values in parentheses are t-statistics.

inclusive economic development and poverty reduction. This could be true, particularly in areas where there are “fat dynasties” (i.e., one dominant political clan with many family members simultaneously occupying elective positions), accompanied by very low development, high poverty and strong dependence on the political elite by a large number of poor and low-income families. In especially far-flung areas, with a greater distance from Manila, it is also possible that the main institutions of democracy (e.g., media, oversight institutions such as the Ombudsman and the Commission on Audit, and academic and civil society institutions capable of lobbying for good governance) are relatively weaker. This creates the vacuum upon which impunity can further thrive.

An extensive political science literature characterizes these areas in the Philippines as rife with warlordism,²⁹ patron-client relationships,³⁰ oligarchic rule,³¹ and underdeveloped institutions and dependency.³² The regression results above illustrate this where political inequality adversely affects development outcomes.

While political inequality generally tends to be counter-developmental, the economic inequality variable appears to display an inflection point—contributing to improving socioeconomic conditions in the beginning but becoming detrimental if it becomes “excessive.”

CONCLUSION

This study contributes to the inequality literature by developing and analyzing a new measure of political inequality. Its main contribution lies in the development of a political inequality index, using data on political clans in the Philippines occupying elective positions across time and across political levels in each Philippine province. This study tests initial hypotheses on the possible links across economic inequality, political inequality, and development outcomes across seventy-nine Philippine provinces.

The foregoing analysis reveals that economic inequality displays a nonlinear relationship with socioeconomic indicators of development. This coheres with earlier literature suggesting that initial inequality is not necessarily problematic for growth and development. It is excessive inequality at much higher levels of development that might constrain further growth. On the

other hand, we also find evidence that political inequality is generally negatively linked to development outcomes. Unlike economic inequality, the concentration of political power in the hands of a few seems to be associated with weaker development outcomes, regardless of the level of development the province is in.

This finding emphasizes how future research on political inequality could provide important information on the persistence and depth of other forms of poverty, deprivation, under-development, and inequality. Perhaps a more multidisciplinary understanding of how inequality evolves—tying together economics, politics, and other disciplines—could help inform policymakers on how best to address this.

APPENDIX

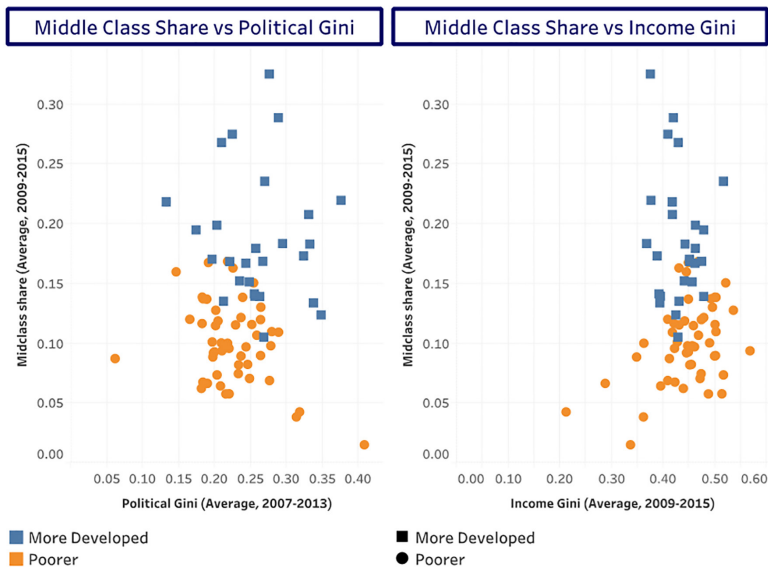


Figure 8: Income Gini and Political Gini Plotted against Middle Class Share, Philippine Provinces (2009–2015).

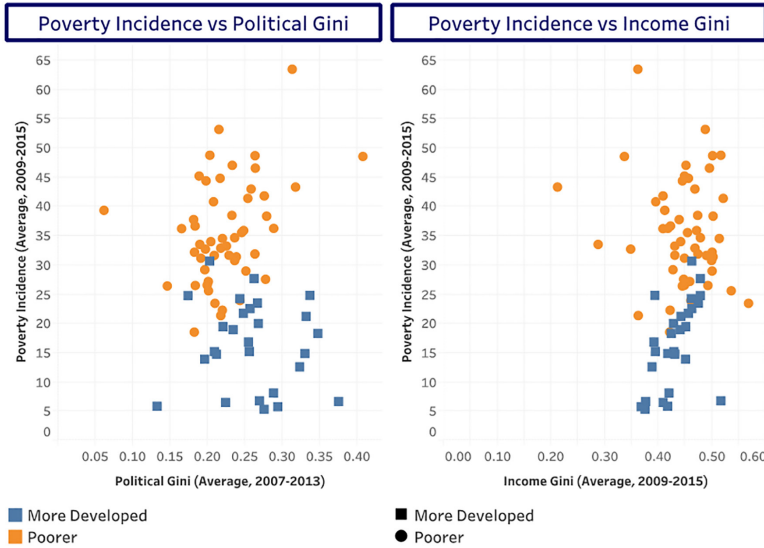


Figure 9: Income Gini Plotted and Political Gini against Poverty Incidence, Philippine Provinces (2009–2015).

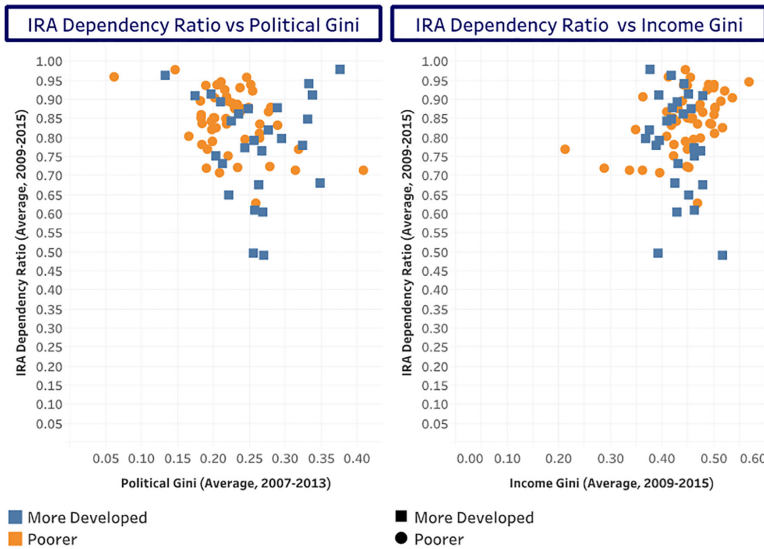


Figure 10: Income Gini and Political Gini Plotted against IRA Dependency Ratio, Philippine Provinces (2009–2015).

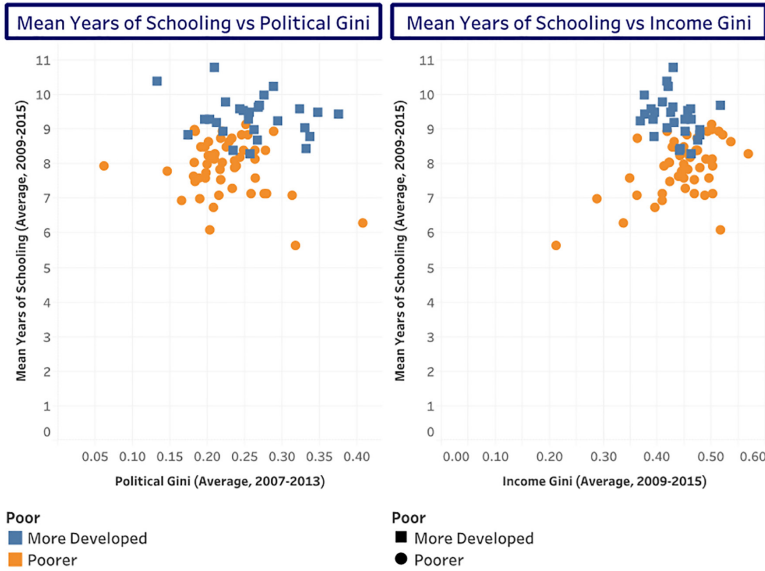


Figure 11: Income Gini and Political Gini Plotted against Mean Years of Schooling, Philippine Provinces (2009–2015).

NOTES

1. Sen (1997) acknowledges two main branches of work here, spanning objective measures of inequality (typically anchored on some statistical measure of divergence of income) as well as normative notions of social welfare that place some value on a lower degree of inequality given a certain level of income. See Amartya Sen, *On Economic Inequality* (Oxford: Clarendon Press, 1997).
2. Anne Krueger, "Supporting Globalization" (Remarks, 2002 Eisenhower National Security Conference on "National Security for the 21st Century: Anticipating Challenges, Seizing Opportunities, Building Capabilities," WA, September 26, 2002); Martin Feldstein, "Reducing Poverty, Not Inequality," *Public Interest* 137 (1999): 33–41.
3. Jonathan D. Ostry, Andrew Berg, and Charalambos G. Tsangarides, *Redistribution, Inequality and Growth*, International Monetary Fund, April 2014, <https://www.imf.org/external/pubs/ft/sdn/2014/sdn1402.pdf>; Joseph Stiglitz, *The Price of Inequality: How Today's Divided Society Endangers our Future* (New York: WW Norton and Company, 2012).

4. Era Dabla-Norris, Kalpana Kochhar, Nujin Suphaphiphat, Frantisek Ricka, Evridiki Tsounta, *Causes and Consequences of Income Inequality: A Global Perspective*, International Monetary Fund, June 2015, <https://www.imf.org/external/pubs/ft/sdn/2015/sdn1513.pdf>; Kwame S. Jomo, ed. *Flat World: Big Gaps* (London: Zen Books Limited, 2007); Branko Milanovic, "Global Income Inequality: What it is and Why it Matters," in *Flat World, Big Gaps*, ed. Kwame S. Jomo, (London: Zen Books Limited, 2007), 1–23.
5. Joshua Dubrow, "Guest Editor's Introduction: Defining Political Inequality within a Cross-National Perspective," *International Journal of Sociology* 37, no. 4 (Winter 2007/2008): 3–9.
6. Robert Dahl, *On Political Equality* (New Haven, CT: Yale University Press, 2006).
7. Dietrich Rueschemeyer, "Addressing Inequality," *Journal of Democracy* 15, no. 4 (October 2004): 76–90; Kay Lehman Scholzman, Sidney Verba, and Henry E. Brady, *The Unheavenly Chorus: Unequal Political Voice and the Broken Promise of American Democracy* (Princeton, NJ: Princeton University Press, 2012); Gabor Toka and Marina Popescu, "Inequalities of Political Influence in New Democracies," *International Journal of Sociology* 37, no. 4 (Winter 2007): 67–93.
8. Frederick Solt, "Economic Inequality and Democratic Political Engagement," *American Journal of Political Science* 52, no. 1 (2008): 48.60.
9. Incidentally, research on the persistence and electoral success of members of political dynasties acknowledge the advantages of political scions who grow up with relatively more extensive political networks due to early exposure to political life, and perhaps also some training by their elders. They are also automatically privy to relatively more information compared to the average and unconnected youth leader. See Elizabeth Beaumont, "Promoting Political Agency, Addressing Political Inequality: A Multilevel Model of Internal Political Efficacy," *The Journal of Politics* 73, no. 1 (2011): 216–231. See also Ernesto Dal Bo, Pedro Dal Bo, and Jason Synder, "Political Dynasties," *The Review of Economic Studies* 76, no. 1 (2009): 115–42; Ronald Mendoza, Edsel Beja, Victor Venida, and David Yap, "Inequality in Democracy: Insights from an Empirical Analysis of Political Dynasties in the 15th Philippine Congress," *Philippine Political Science Journal* 33, no. 2 (2012): 132–145; Ronald Mendoza, Edsel Beja, Victor Venida, and David Yap, "Political Dynasties and Poverty: Measurement and Evidence of Linkages in the Philippines" *Oxford Development Studies* 44, no. 2 (2016): 189–201; Pablo Querubin, "Family and Politics: Dynastic Persistence in the Philippines," *Quarterly Journal of Political Science* 11, no. 2 (2016): 151–181.
10. John Griffin, "Senate Apportionment as a Source of Political Inequality," *Legislative Studies Quarterly* 31, no. 3 (2006): 405–43; Melanie Hughes, "Windows of Political Opportunity:

Institutional Instability and Gender Inequality in the World's National Legislatures," *International Journal of Sociology* 37, no. 4 (2007): 26–51.

11. In this article, we will use the Gini coefficient at the Philippine province level as a proxy for economic inequality. Given our focus on the broad term, we will use “economic inequality” unless otherwise referring to the proxy variable we turn to in our empirical analysis.
12. Dahl, *On Political Inequality*, 78.
13. Rueschemeyer, “Addressing Inequality.”
14. Daron Acemoglu, Maria Bautista, Pablo Querubin, and James Robinson, “Economic and Political Inequality in Development: The Case of Cundinamarca, Colombia” (working paper, National Bureau of Economic Research (NBER), Cambridge 2007).
15. James Atkinson, Allen Hicken, and Nico Ravanilla, “Pork and Typhoons: The Influence of Political Connections on Disaster Response in the Philippines,” in *Building Inclusive Democracies in ASEAN* (Mandaluyong, Philippines: Anvil Publishing, Inc. 2005).
16. Mendoza et al., “Political Dynasties and Poverty.”
17. For example, see Querubin, “Family and Politics”; Mendoza et al., “Political Dynasties and Poverty”; Atkinson, Hicken, and Ravanilla, *Pork and Typhoons*.
18. The local government positions in each province vary due to the different land sizes, populations and political assignments in each province. The positions encoded in our dataset includes: Governor, Vice Governor, Mayor, Vice Mayor, Provincial Board Member, Councilor (for Cities) and Congressional Representative.
19. As noted by earlier scholarship on Philippine dynasties, a pseudo-randomization of last name assignments in the Philippines (due to Spanish-era edict that sought to assign mostly Christian last names to the population) also helps to minimize the likelihood that two politicians possess the same last name but are actually not relatives. It also helps to minimize possible errors, that most established politicians and political clans in the country will likely try to oppose and discourage candidates who possess the same last name but are unrelated, from running for office. Hence it is more likely that within a Philippine province, Filipinos with the same last name are actually related. For further information, see Mendoza et al., “Inequality in Democracy”; Mendoza et al., “Political Dynasties and Poverty”; Querubin, “Family and Politics.”
20. See also Yasushi Asako, Takeshi Iida, Tetsuya Matsubayashi, and Michiko Ueda, “Dynastic Politicians: Theory and Evidence from Japan,” *Japanese Journal of Political Science* 16, no. 1 (2015): 5–32; E. Dal Bo, P. Dal Bo, and Snyder, “Political Dynasties”; Querubin, “Family and Politics.”

21. K-Means cluster analysis comprises unsupervised learning algorithms that classify observations into meaningful clusters by identifying centroids for each cluster that minimizes intra-cluster variations, while maximizing inter-cluster disparities.
22. For specific details, please refer to the work of Malika Charrad, Nadia Ghazzali, Veronique Boiteau, and Azam Niknafs, "NbClust: An R Package for Determining the Relevant Number of Clusters in a Data Set," *Journal of Statistical Software* 61, no. 6 (2016): 1–36.
23. The Philippines has a total of eighty-one provinces, however only seventy-nine provinces were included in the analysis due to the lack of data for the two newest provinces, Dinagat Islands and Davao Occidental.
24. In order to avoid confusion, we will use the term "economic inequality" in our analysis even as we utilized the Gini coefficient (income inequality) as its proxy indicator. Excluded in the eight-one provinces are the newest provinces: Dinagat Islands and Davao Occidental due to data unavailability.
25. Simon Kuznets, "Economic Growth and Income Inequality," *American Economic Review* 45, no. 1 (1955): 1–28.
26. Acemoglu et al., "Economic and Political Inequality in Development."
27. Daron and Acemoglu and James Robinson, "The Political Economy of the Kuznets Curve," *Review of Development Economics* 6, no. 2 (2002): 183–203.
28. To find empirical evidence that Philippine governors tend to spend more on education and health services, particularly when there are more competitive elections see Orville Solon, Ramon Fabella, and Joseph Capuno, "Is Local Development Good Politics? Local Government Expenditures and the Re-election of Governors in the Philippines in the 1990s," *Asian Journal of Politics Science* 17, no. 3 (2009): 265–284.
29. Paul Hutchcroft and Joel Rocamora, "Strong Demands and Weak Institutions: The Origins and Evolution of the Democratic Deficit in the Philippines," *Journal of East Asian Studies* 3, no. 2 (2003): 259–292; John Sidel, "Philippine Politics in Town, District, and Province: Bossism in Cavite and Cebu," *Journal of Asian Studies* 56, no. 4 (1997): 947–966.
30. Alfred McCoy, *An Anarchy of Families: State and Family in the Philippines* (Quezon City: Ateneo de Manila University Press, 1994); Dante Simbulan, "A Study of the Socio-economic Elite in the Philippine Politics and Government" (unpublished dissertation, Australian National University, 1965); Julio Teehankee, "Emerging Dynasties in the Post-Marcos House of Representatives," *Philippine Political Science Journal* 22, no. 45 (2001): 55–78; Julio Teehankee, "And the clans play on," *Philippine Center for Investigative Journalism*, March 7, 2007.

31. Simbulan, "Socio-Economic Elite."
32. Rodelio Manacsa and Alexander Tan, "Manufacturing Parties: Re-examining the Transient Nature of Philippines Political Parties," *Party Politics* 11, no. 6 (2005): 748–765; Mendoza et al., "Inequality in Democracy"; Mendoza et al., "Political Dynasties and Poverty."

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