

# AmericasBarometer *Insights*: 2014

Number 102

## State Capacity and Democratic Governance in Latin America: A Survey Data-Based Approach to Measurement and Assessment

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**Executive Summary.** State capacity is a fundamental pre-condition for democratic governance. Without capable institutions, citizens' civil, political, and social rights cannot be realized. In this *Insights* report we demonstrate how data from the 2012 AmericasBarometer can be used to compute and analyze state capacity in Latin America, with a special focus on the cases of Chile, Colombia and Costa Rica for which a more comprehensive series of survey items is available. The results suggest that Latin American states display significant levels of variance in state capacity from cross-national, within-country, and functional perspectives. A subset of the observed patterns run counter established assumptions, with important implications for both policy makers and for areas to focus in future research.

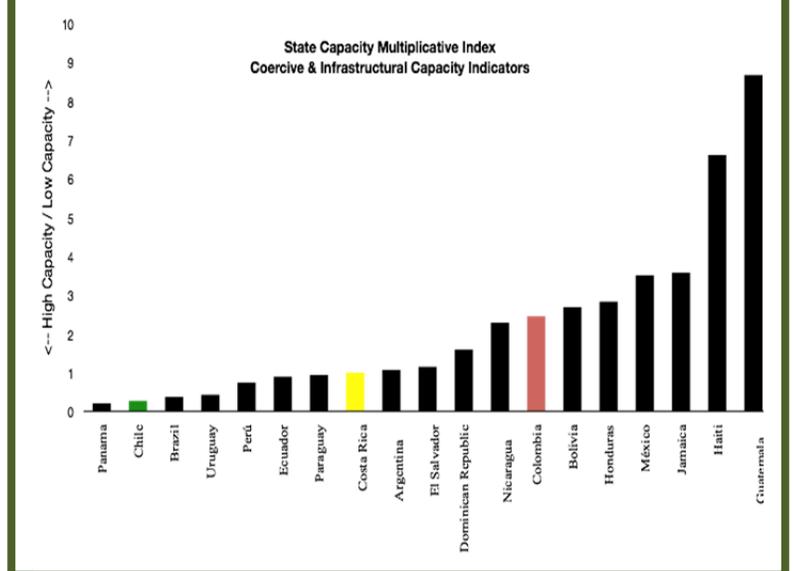
*The Insights Series is co-edited by Jonathan Hiskey, Mitchell A. Seligson and Elizabeth J. Zechmeister with administrative, technical, and intellectual support from the LAPOP group at Vanderbilt.*

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The 2004 UNDP report was not alone in highlighting the “urgency” of the problem of weak and ineffective state institutions in Latin America. Social scientists have recurrently pointed to such deficits as a characteristic trait of Latin American societies, pointing to the highly uneven and ineffective capacity of the state as one of the region’s most vexing obstacles in the current era of democratic regimes (see e.g., O’Donnell 1993; Centeno 2002; López-Alves 2000; PNUD 2004; Rotberg 2003, 2007). Weak state capacities have been identified as a root cause of political turmoil, de-institutionalization, and low levels of socioeconomic development (see e.g., Mainwaring, Bejarano, and Pizarro 2006; UNDP 2004). In sum, a functioning and sovereign state is a fundamental prerequisite for the realization of democratic citizenship. For these reasons, a diagnosis of democratic governance that is blind to the characteristics and capacity of state institutions is at best incomplete. In this *Insights*<sup>1</sup> report we demonstrate how measures from the 2012 Americas-Barometer<sup>2</sup> can be used to proxy state strength and territorial reach in Latin America. Through this approach we identify important cross-national and sub-national variations in state capacity across the Latin American region.

The practice of conceptualizing states’ strength and territorial reach is contested (see e.g. RCP 2012). In this report, we follow Soifer’s (2012) strategy in operationalizing the concept (yet, our approach also taps into the relevant

Figure 1. Comparative State Infrastructural and Coercive Capacity Index



dimensions identified by Giraudy 2012 and Kurtz & Schrank 2012, among others). Soifer identifies three dimensions that together define state capacity: a state’s coercive capacity, a state’s infrastructural capacity, and a state’s extractive capacity. Although not explicitly developed to measure these three dimensions, items introduced in the AmericasBarometer’s 2012 questionnaire provide proxies that allow for a preliminary comparative analysis of the region’s states, on the basis of their coercive and infrastructural capacities.

Three additional items available for the cases of Chile, Colombia, and Costa Rica then enable us to implement a broader operationalization of the concept, including two additional measures of a state’s coercive and infrastructural capacity, and one that taps states’ relative extractive capacity. The six items analyzed in this *Insights* Report are displayed in Box 1.

In offering this survey-based approach to measuring state capacity, we hope to add to ongoing efforts to push forward research on this important topic. State capacity has proven difficult to measure in a systematic and reliable way across multiple countries. On the one hand, the quality of government-produced data

<sup>1</sup> Prior issues in the *Insights* Series can be found at: <http://www.vanderbilt.edu/lapop/insights.php>.

The data on which they are based can be found at <http://www.vanderbilt.edu/lapop/survey-data.php>

<sup>2</sup> Funding for the 2012 round mainly came from the United States Agency for International Development (USAID). Important sources of support were also the Inter-American Development Bank (IADB), the United Nations Development Program (UNDP), and Vanderbilt University. This *Insights* report is solely produced by LAPOP and the opinions expressed are those of the authors and do not necessarily reflect the point of view of the United States Agency for International Development, or any other supporting agency.

(which is often used as a proxy for different dimensions of state strength) is itself contingent on states' differential capacity to produce reliable data. On the other hand, an assessment of a state's territorial reach almost by definition needs to be based on data that is available at low levels of territorial aggregation. In this *Insights* Report, we report the initial findings of this new approach to measuring state capacity, relying on a series of indicators from the 2012 AmericasBarometer database, that help overcome these problems.<sup>3</sup>

We begin with a state's coercive capacity. Here we rely on the AmericasBarometer crime and corruption victimization indicators. The underlying assumption of this measure is that lower levels of crime and corruption should be associated with higher levels of state coercive capacity. For the cases of Chile, Colombia, and Costa Rica, we complement those two indicators with a third: citizens' willingness to officially report a robbery to the police. This indicator taps the level of confidence one has in the capacity of state officials to enforce the rule of law in their society.

In order to assess a state's infrastructural capacity, we use a single indicator: the percentage of respondents in each country that reported having been issued a national identification card (or a voter-registration card in the Central American cases). Though certainly not designed as a measure of infrastructural capacity, this item offers an indication of how effective the state is in ensuring widespread distribution of this vital official document. In the more detailed analysis of Chile, Colombia, and Costa Rica, we complement this measure with a second that also seeks to gauge the infrastructural reach of the state by calculating the distance between the closest public school and each respondent's household. Here again, this measure offers us an indication of how comprehensive the state's presence is across its territory.

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<sup>3</sup> Specifically, survey data are not endogenous to state capacity and can be assessed at the sub-national level.

### **Box 1. State Capacity Indicators**

**VIC1EXT.** Have you been a victim of any type of crime in the past 12 months? That is, have you been a victim of robbery, burglary, assault, fraud, blackmail, extortion, violent threats or **any other type** of crime in the past 12 months?

**CORVIC. Index of Corruption Victimization** created as a dummy where 1 means that the respondent was asked for or paid a bribe, answering yes to any of the following questions: EXC2, EXC6, EXC11, EXC13, EXC14, EXC15, EXC16 or EXC20.

**INF1.** Do you have a national identification card?

**VB1.** Are you registered to vote? [El Salvador, Nicaragua, Honduras, Costa Rica, Panama]

#### **[Only in Chile, Colombia and Costa Rica]**

**COER1.** Cuando hace las compras en el almacén/comercio de su barrio, ¿y aunque usted no lo pida, le dan recibo/boleto: (1) Siempre (2) algunas veces (3) casi nunca o (4) nunca?

**COER2.** Suponga que a alguien de este barrio le roban un aparato de televisión de su casa y que un vecino presencia el robo. ¿Cree que su vecino hará la denuncia a la policía: (1) Siempre (2) algunas veces (3) casi nunca o (4) nunca?

**INF5a.** Aunque usted no tenga ninguna razón para ir allí, suponga que tiene que ir a la escuela pública más próxima a su hogar. ¿Cuánto se demoraría en llegar a esa escuela a pie?

Finally, to measure a state's capacity for taxation, we rely on an item that asks respondents how often they are offered a sales receipt by clerks when shopping at local stores. Although indirect, this indicator provides an estimate of the levels of (consumer) tax enforcement in a given society.

### **A Broad Comparative Assessment of State Capacity**

State capacity, at least as conceived in Soifer (2012), implies that the three dimensions of state capacity (coercive, infrastructural, and extractive) should be simultaneously present to observe a highly capable state. For this reason, we employ a multiplicative index (instead of an

additive one) that brings together the indicators of coercive and infrastructural capacity discussed in the previous section.

The coercive capacity component involves two simple steps. First, we “normalize” (dividing by the regional average of 2012) each country’s crime and corruption victimization indicators and then add these scores together. The infrastructural capacity component is obtained through a similar normalization process (once again, dividing by the regional mean) of the percentage of respondents that reported not having been issued an official identification card. A summary of this index, then, is as follows:

**State Capacity Index** = *Coercive Capacity (Normalized Crime + Normalized Corruption Victimization) x Infrastructural Capacity (Normalized percentage of respondents who don’t have ID card)*

Country scores from the resulting index are displayed in Figure 1 for all of Latin America as well as Jamaica and Haiti. The greater the score, the *lesser* its combined capacity to enforce the rule of law (against crime and against state officials) and to administratively reach its citizens. As is clear from the figure, Latin American countries display significant variation regarding their levels of state capacity. Countries like Guatemala, Haiti, Jamaica, Mexico, Honduras, Bolivia, and Colombia are among those with the weakest levels of state capacity. Meanwhile, those countries with the most effective states according to our measure include Panama, Chile, Brazil, and Uruguay.

In Column 7 of Table 1, we see the relative scores of selected countries at both extremes of the distribution of the indicator, as well as Costa Rica, which offers an example of an intermediate case. Columns 4 through 6 provide the case values for each of the components used in the construction of the index. In Columns 1-3, we see the comparative

scores received by these countries from alternative measures of state capacity.

As a validity check, a comparison of the 2012 Failed States Index (compiled by the Institute for Peace), the 2010 Bertelsmann Stateness Index, and countries’ GDP per capita levels in 2011 suggests that the index results are generally consistent with these independent assessments of Latin American state institutions. At the same time, although a correlation is observed between the index and a country’s wealth (measured through GDP per capita figures), important exceptions exist (e.g. Mexico has a disproportionately low state capacity in relation to its levels of economic wealth).

**Table 1. Correlates of States’ Coercive and Infrastructural Capacities**

	Failed States index 2012 (1)	Bertelsmann Stateness index (2)	GDP per capita (2011) (3)	Corruption victimization (COERCIVE COMPONENT) (4)	Crime victimization (COERCIVE COMPONENT) (4)	% without ID (COERCIVE COMPONENT) (4)	Index of coercive and infrastructural capacity (7)
Chile	43,50	9,20	14394	5,99	13,74	0,50	0,27
Brazil	64,10	8,15	12594	7,46	8,47	1,00	0,40
Uruguay	40,50	10,00	13866	8,20	22,75	0,53	0,42
Costa Rica	49,70	9,40	8647	20,72	17,49	2,37	0,99
Colombia	84,40	7,00	7104	16,13	21,04	5,29	2,45
Honduras	78,50	6,40	2247	25,02	18,72	4,95	2,82
México	73,60	6,95	10047	31,15	23,12	4,30	3,57
Haiti	104,90	3,67	726	68,27	19,70	5,97	6,60
Guatemala	79,40	5,55	3178	23,50	20,92	14,43	8,66

### State Capacity in Chile, Colombia, and Costa Rica

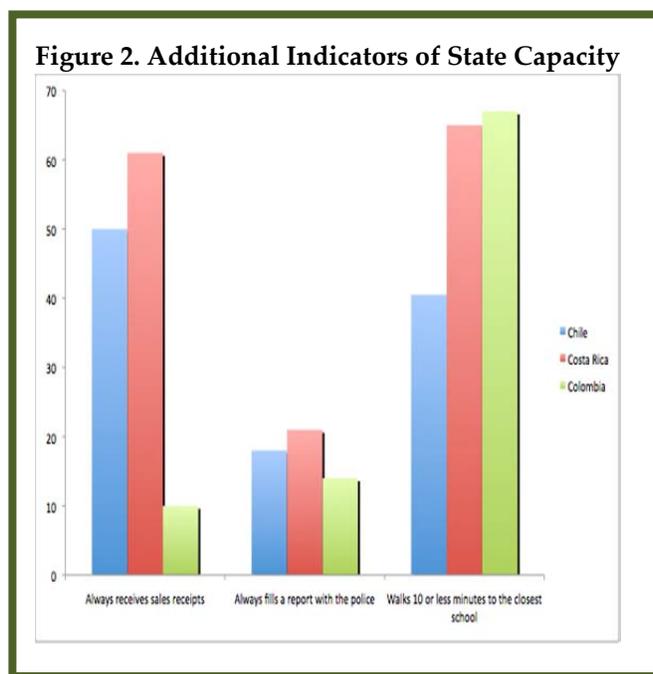
In this section we engage in a more detailed empirical analysis of state capacity, by looking at three cases that display strong (Chile), moderate (Costa Rica), and relatively weak state capacity (Colombia). To do so, we expand the analysis to include three additional items that were asked in the AmericasBarometer 2012 surveys in those three countries. Figure 2 displays the relative country positions for these three items (see Box 1 for the wording of COER1, COER2, and INF5a). Regarding the likelihood of receiving a sales receipt

(extractive capacity), the results roughly correspond to those of the overall index, with Chile and Costa Rica having significantly higher scores than Colombia. For the item that asked respondents whether they would file a report with the police after a robbery (coercive capacity), Chile and Costa Rica again score higher than Colombia, but not by a significant margin. Running counter to these results, the third item finds Chile with the lowest score, suggesting its infrastructural capacity, approximated through the physical distance between households and the closest public schools, is weaker than that of Costa Rica and Colombia.

Combining these three additional indicators, we compute a new index of state capacity that incorporates at least one proxy for each of the three conceptual dimensions proposed by Soifer (2012).<sup>4</sup>

Table 2 presents the results for each of the three countries, as well as for two different types of sub-national categorizations: municipalities classified across levels of human development (low; medium; high), and urban municipalities compared to rural ones.

Using this more complete state capacity index, we find that Costa Rica registers a higher score than it did with the previous measure. This results from that country's more even performance across the three functional dimensions of state capacity. In turn, Colombia continues to present low levels of state capacity, particularly in relation to extractive



and coercive capacity. Finally, Chile is “penalized” in this new index, by its relatively low levels of infrastructural capacity (especially regarding the territorial spread of its public school network).

**Table 2. State Capacity in Chile, Colombia, and Costa Rica**

	Coercive	Extractive	Infrastructural	Total score
<b>CHILE Average</b>	<b>66.00</b>	<b>50.00</b>	<b>70.00</b>	<b>231000</b>
Low Development	1.02	0.96	0.98	0.96
Mid Development	0.97	0.88	1.03	0.88
High Development	1.02	1.14	0.98	1.13
Urban	0.98	1.00	1.02	1.00
Rural	1.08	0.98	0.88	0.93
<b>COLOMBIA Average</b>	<b>59.00</b>	<b>10.00</b>	<b>80.25</b>	<b>47347</b>
Low Development	1.07	0.40	1.03	0.44
Mid Development	0.99	0.60	0.98	0.59
High Development	0.93	1.50	0.96	1.33
Urban	0.98	1.00	0.98	0.96
Rural	1.07	0.60	1.04	0.67
<b>COSTA RICA Average</b>	<b>60.83</b>	<b>61.00</b>	<b>80.50</b>	<b>298722</b>
Low Development	0.92	1.11	1.02	1.05
Mid Development	1.02	0.97	0.99	0.98
High Development	1.01	0.95	0.99	0.95
Urban	0.95	0.95	0.99	0.90
Rural	1.09	1.10	1.01	1.21

<sup>4</sup> Once again, a multiplicative approach is used, so that the equations are as follows:

$$\text{State Capacity Index} = \frac{\text{Coercive Capacity (COER2+VIC1EXT+CORVIC/3)} * \text{Extractive Capacity (COER1)} * \text{Infrastructural Capacity (INF1+INF5a/2)}}{3}$$

$$\text{Sub-national State Capacity Index} = \frac{(\text{Coercive Capacity1 (COER21+VIC1EXT1+CORVIC1/3)} * \text{Extractive Capacity1 (COER11)} * \text{Infrastructural Capacity1 (INF11+INF5a1/2)})}{(\text{Coercive Capacity (COER2+VIC1EXT+CORVIC/3)} * \text{Extractive Capacity (COER1)} * \text{Infrastructural Capacity (INF1+INF5a/2)})}$$

where “1” represents a given sub-national unit.

Turning to estimates of state capacity at the subnational level, we see that in Chile and Costa Rica, there exists minimal variation across our distinct categories of municipalities and the respective three dimensions of state capacity. In Colombia, however, we find substantial variation across municipalities with

distinct development levels, as well as across urban and rural communities.

Figure 3 displays summary scores for each case and municipal cluster. Costa Rica is the case in which the measure of state capacity presents more evenness across municipalities pertaining to different socioeconomic segments. Strikingly, state capacity in that case seems to be higher in rural areas and (marginally) in less developed municipalities. The latter relates, especially, to the infrastructural and extractive capacity of the Costa Rican state (as operationalized in the measure here). Meanwhile, coercive capacity is relatively lower in rural areas.

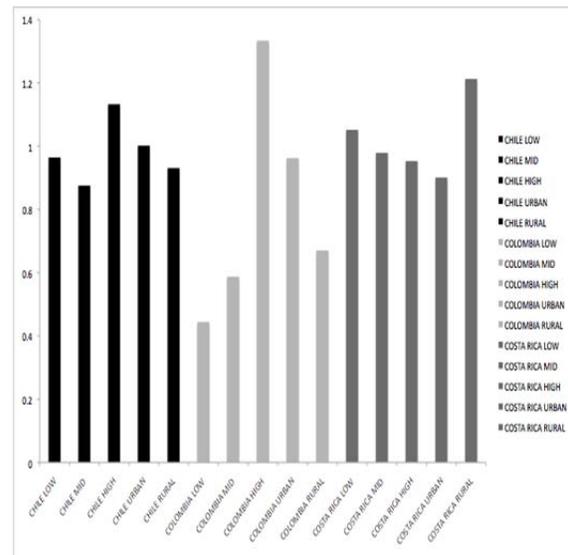
Chile presents relatively even state capacity across development categories, and rural and urban municipalities. Even in Chile, though, extractive state capacity is significantly higher in those high development municipalities.

On the other hand, Colombia represents a scenario of very uneven territorial reach of the state. In this case, state extractive capacity is much higher in highly developed and urban municipalities, compared to less developed and rural ones. Thus, like in the case of Chile, higher levels of state capacity relate especially to the state's greater extractive capacity in highly developed municipalities. In terms of infrastructural and coercive capacity, the Colombian state is stronger at lower levels of social development, though the differences here are fairly marginal.

## Conclusion and Implications

In this *Insights* Report we have reported on an attempt to employ data from the 2012 AmericasBarometer to better capture state capacity across the Americas. Although some of the analyses are restricted to a particular subset of cases, and based on a series of tentative proxies for three dimensions of state capacity, the results suggest that it may be possible to develop an adequate, survey-based

**Figure 3. Summary Scores of State Capacity across Municipal Clusters and Urban-Rural Settings**



measure of a concept that has been notoriously difficult to measure cross-nationally.

The results of these efforts suggest several conclusions. First, the evidence suggests that state capacity varies widely in the Americas. Such variation is not only cross-national, but also runs across different dimensions of state capacity. The latter type of variance has important, and differing, implications for the realization of civil, social, or political rights in a given society. In a nutshell, in countries in which the infrastructural capacity of the state is low, the provision and delivery of essential social policies (i.e. education) is hindered. In contrast, in cases in which the coercive capacity of the state is low, citizens' most basic civil rights are frequently violated. Finally, where states have low levels of extractive capacity, the regulation of economic activity and the enforcement of property rights is likely to be weak. This is especially important, because states' relative ability to develop higher levels of infrastructural and coercive capacity can be hindered by an endemic lack of resources.

Second, the analysis suggests that territorial and socioeconomic variation is also present within states, and that significant variance is observed even in relatively capable states such as those of Costa Rica and Chile, though to a much lesser extent than in Colombia. Even in those former cases, the state is more able to pursue certain activities (and not others) across social segments and territorial jurisdictions. Interestingly, functional differentiation in contemporary Latin American states does not always run as expected. On the one hand, some states were found to have greater capacity on certain dimensions in the countryside (e.g. infrastructural capacity in the Colombian and Costa Rican countryside). On the other hand, some states have a greater capacity to develop certain functions in the context of low levels of social development (e.g. extractive capacity in Costa Rica, coercive capacity in Colombia) than in more socially developed settings. In sum, the analysis suggests that state capacity is uneven, both functionally and territorially. Moreover, this conclusion suggests that looking at the problem of fostering state capacity as one that entails the need to project state power from the center to the periphery is not always accurate in contemporary Latin America. Certain challenges to state capacity (i.e., that of fostering coercive capacity) are more frequently found at the center, as opposed to in countries' territorial peripheries.

Finally, the analyses suggest that significantly more data should be produced in order to understand the nuances of state capacity in the region. In that regard, this *Insights* report alone cannot provide definitive measures and answers. Yet, we hope to have raised interesting questions and helped to identify important research challenges for future analyses of one fundamental precondition (though a usually forgotten one) for the realization of democratic citizenship: state capacity and territorial reach.

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