VOLUME XXX • NUMBER III • FALL 2018

# Political Crisis, Migration and Electoral Behavior in Puerto Rico

CARLOS VARGAS-RAMOS

#### ABSTRACT

Puerto Rico is in political crisis. Evidence of this crisis is the precipitous drop in voter turnout in the 2016 elections after more than three decades of small but steady decline. Some political observers and practitioners have attributed this decline to the emigration from the island, a product itself of an enduring economic crisis engulfing Puerto Rico. However, emigration is not a factor in the decline of electoral participation in Puerto Rico. Based on statistical analyses of aggregate voting and population data, results show that Puerto Rico's decline in voter participation is not attributable to emigration. Rather, an extant legitimacy crisis of the political system and its political class might be a more proximate and likely explanation for the drop in electoral participation in 2016. [Key words: Puerto Rico, voting, migration, crisis, political participation, elections]

The author (cvargasr@hunter.cuny.edu) is a political scientist based at the Center for Puerto Rican Studies, who works on the impact of migration on Puerto Rican political behavior, political attitudes and orientations, as well as on issues of racial identity. Among other recent works, he is editor of Race, Front and Center: Perspectives on Race among Puerto Ricans (Centro Press, 2017), and co-editor of Puerto Ricans at the Dawn of the New Millennium (Centro Press, 2014).

Puerto Rico is in crisis. The crisis is political in nature. Puerto Ricans are not satisfied with the political system they live in and the political class that governs them locally. A sign of this dissatisfaction with the political system is evident in the precipitous drop in the level of participation at election time that happened in the elections held in 2016. Dissatisfaction may also be reflected in the level of emigration from the island. Emigration is not a new phenomenon, but rather a historical trend. The collapse in the exercise of the franchise in Puerto Rico, however, is a new phenomenon, and it requires explanation.

It has been proposed that emigration from the island is the underlying reason for the decline in turnout in the 2016 elections. However, the analysis I present in this paper shows that emigration does not account for the decline in the rate of participation in those elections. A decline in population driven by emigration may have resulted in fewer votes being cast at election time in 2016, but it does not explain why fewer registered voters turned out to vote. The decline in voter participation rate in 2016 was much larger than any decline in population could account for. Emigration cannot, and in fact does not, account for the decline in turnout, as I demonstrate in this analysis. Instead, to account for such a decline in participation, I suggest and propose alternatively that recent as well as secular changes in the political system are the likely explanation for why a sizable segment of the Puerto Rican electorate disengaged from the political process.

# Voting as a legitimizing factor

The focus on turnout at election time is crucial given its significance in practical as well as symbolic terms for the political system in Puerto Rico. Historically, Puerto Rico has exhibited high rates of electoral participation by any measure. Since the middle of the twentieth century through its end, the average turnout rate in general elections on the island every four years has ranged between 73 percent and 89 percent of duly registered voters (see Table 1) (Bayrón Toro 2000). Even when measuring turnout by a more stringent standard -the citizen, voting-age population -turnout during the last four decades of the twentieth century had not been below 64, and often hovered around 80 percent (see Table 2) (Cámara Fuertes 2004). However, the 2016 elections yielded only a 55 percent rate of participation of registered voters; a level of participation never experienced in the previous 68 years in Puerto Rico. I propose that this turnout rate, meager by Puerto Rico's standards, may be an indication of the disenchantment and disappointment of Puerto Rico's electorate in its political class and its political system. I suggest further that very limited political alternatives to manage life in Puerto Rico may have turned off the electorate in a manner never witnessed before, indicating a likely crisis in the existing political system.

As Robert Anderson has argued, "[t]he electoral system is the keystone of legitimization in the Puerto Rican political system... So the party system in Puerto Rico is intimately tied into the mass-participation electoral system, which in turn is one of the bulwarks of a larger political system characterized by a relation of direct

dependence upon (or increasing integration with) the metropolitan United States" (Anderson 1983, 6). Moreover, while voting is not the only way the inhabitants of the island can convey their political preferences and goals to government officials, it is by and large the most common form of political participation and one that characterizes in singular fashion Puerto Rican political behavior (Cámara Fuertes 200; Ramírez 1977; Rivera et al. 1991). The precipitous drop in the turnout rate in the 2016 may serve as an indicator of a growing disaffection with the political system and the regime the electoral system sustains.

All political regimes need a modicum of political support from those ruled by the political authorities. While the level of political support for governmental authorities and the broader political regime does not have to be constant (Easton 1975), as it may fluctuate within a band of tolerance for the regime. This is because "in spite of shortcomings and failures, the existing political institutions are better than any others that might be established, and that they therefore can demand obedience," particularly in governments that attain power through a democratic process of free elections (Linz 1978, 16). Yet a regime cannot sustain itself over the long run without political support. Bruce Gilley has established good governance (i.e., the rule of law, control of corruption and government effectiveness), along with democratic right and welfare gains as broad determinants of state legitimacy (Gilley 206). Juan Linz himself has described how both governmental efficacy (i.e., "the capacity of a regime to find solutions to the basic problem facing any political system") and effectiveness (i.e., "the capacity to actually implement the policies formulated, with the desired results") "can strengthen, reinforce, maintain or weaken the belief in legitimacy" (Linz 1978, 18, 20, 22). The profound economic crisis affecting the Commonwealth regime, under the administration of either the New Progressive Party or the Popular Democratic Party, may be nurturing the disaffection in the political system given the incapacity of the governmental apparatus to provide relief from the decade-long economic decline, and the increasing cynicism involving ministerial malfeasance; in other words, due to impaired governance.

If Robert Anderson is correct in describing voting in Puerto Rico as a cornerstone on which the legitimacy of the Commonwealth regime rests, then an erosion in participation in this process of regime support may be seen as an indicator of receding legitimacy for it. The steady but gradual erosion in electoral participation witnessed on the island since the 1990s may indicate that disaffection with the political system may have been brewing for a few electoral cycles (see Table 1). Turnout in Puerto Rico peaked in 1984, when 89 percent of registered voters turned out to vote. Since that time, there has been a steady decline in the turnout of registered voters, particularly after 1992, when turnout of registered voters reached 85 percent. By 2012, turnout was 78 percent of registered voters. By a different measure—the total number of votes cast in an election—voting had reached its peak in 2000, when more than 2 million votes were cast. By 2012, only 1.8 million voters had cast their vote. In 2016, only 1.5 million voters went to the polls.

100%
90%
80%
70%
60%
50%
40%
1988 1952 1956 1968 1968 1972 1976 1980 1988 1992 1996 2000 2004 2008 2012 2016

Table 1. Registered voter turnout for governor in Puerto Rico, 1948-2016

Source: Comisión Estatal de Elecciones de Puerto Rico.

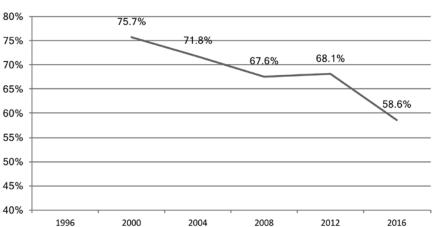


Table 2. Turnout in elections for governor in Puerto Rico by the citizen, voting-age population, 2000-2016

Source: Comisión Estatal de Elecciones de Puerto Rico; U.S. Census Bureau.

Political and governmental leaders and commentaries in the popular press have pointed to migration as a reason for the decline in electoral participation (Cortés Chico 2016; Ruiz Kuilan 2017). While "exit" as an individual strategy to deal with individual consequences of the economic crisis might possibly account for *some* of the decline in voting in the past two elections, it does not in fact account for much of the very large decline in voting. Migration may be understood as a direct repercussion of the economic crisis, leading to individual-level responses as a solution to the larger social and political problems. In that sense, then, the impact of migration on the decline of voting in Puerto Rico might be characterized as an indirect consequence of the economic crisis on the political system. However, this is not what appears to be taking place in Puerto Rico at present. Rather, the extent of "loyalty" in the political system appears to be declining (Hirschman 1970). Yet, instead of resorting to "voice" to address the political implications of the economic crisis, Puerto Ricans may be muting their voices in situ.

In the space that follows I will address how population change as a result of migration does not account for the large decline in electoral participation in Puerto Rico between 2012 and 2016; that is, in the drop in the percentage of registered voters who turned out to vote from one election to the next. Population change might have an effect on a different measure of voting —the number of votes cast between elections—but, while that impact may be statistically significant, its full effect is not enough to account for the unprecedented drop in electoral participation. I then infer from these results and alternatively propose for further study that the increasing abstention in the Puerto Rican electorate in 2016 may actually be a response to their declining faith in the political system, its political institutions and political class in their ability to respond to the needs and wants of Puerto Ricans.

# Accounting for decreasing turnout: migration as an exit strategy?

Explanations in the popular press to account for the decline in electoral participation in the general elections of 2016 and the plebiscite on the status of Puerto Rico in 2017 have included emigration from Puerto Rico (Cortés Chico 2016; Ruiz Kuilan 2017). Undoubtedly, the general decline in population in Puerto Rico, given primarily by migration, has had a depressive effect on levels of turnout at election time, as I will explain in greater detail below. However, this is an insufficient explanation to account for such a profound decline in voting in Puerto Rico.

The proposition that population change in a jurisdiction as a result of the movement of people into or out of that jurisdiction may affect its voting levels is a reasonable one considering what we know about voting at the aggregate level. The literature on the analysis of voter turnout, when the level of analysis is not the individual but rather some geographic jurisdiction (e.g., district, precinct, municipality, state, nation), indicates that population change affects the level of turnout at election time because population change affects a jurisdictions' size, density and stability, among other things. It has been observed that the size of a jurisdiction affects voting levels because jurisdic-

tions with larger size populations tend to have lower rates of participation in elections (Gevs 2006; Frandsen 2002, cf. Carr and Tavares 2014; Tavares and Carr 2013). The hypothesized reasons for this effect are that jurisdictions with greater population increase the information costs involved in political activity and participation (e.g., knowledge about the different issues and actors affecting governance and politics), as well as the calculation an individual may make about the difference her vote may make at election time in relation to the costs of voting (Geys 2006). Jurisdictions with smaller populations may increase turnout by providing a context in which social pressure to vote allows for the identification of non-compliant members of the community. Population density, often measured by the number of people by square mile of territory, may increase the likelihood of voting since more dense jurisdictions tend to enlarge social networks an individual may have, networks that reduce information and participation costs. Population stability is related to higher rates of participation than in jurisdictions with greater movement of their population because of the reduced information costs in stable jurisdictions. Stability is measured often by a number of indicators, for instance, whether the population has lived in the same residence for a given number of years, the overall length of residence in a given jurisdiction, or the level of residents who own the homes they live in. Length of residence in a particular jurisdiction is related to the level of knowledge an individual has about that jurisdiction and its politics. It is argued that homeownership increases stability by anchoring residents in the same location over a longer period of time than renters. It is also argued that homeowners may have a greater stake in the jurisdictions they reside, making them prone to pay more attention to and become involved in the political system.

Jurisdictions with smaller populations may increase turnout by providing a context in which social pressure to vote allows for the identification of non-compliant members of the community.

Population movement as a result of migration from a jurisdiction captures in and of itself the level of that jurisdiction's population stability. The more people move in or out of a jurisdiction, the less population stability it experiences. In addition, migration contributes directly to a jurisdiction's population size, by increasing it or decreasing it (along with its natural rate of growth, measured by the number of birth minus the number of deaths). As with population size, migration also affects a jurisdiction's population density. A jurisdiction's territory tends to be fairly stable over time, though it may be affected by erosion, orographical events or politico-administrative action. Given a jurisdiction's stable territorial extension, emigration reduces a jurisdiction's population density, while immigration increases it.

Given these effects of migration on a jurisdiction's population size, density and stability, it is reasonable to expect that migration will affect its level of electoral par-

ticipation. Yet, little research has been conducted on the effects of population change in Puerto Rico's electoral process. Existing research provides contradictory results on the effect of migration on level of voting by analyzing the levels of participation of migrants returning to Puerto Rico after a sojourn abroad. While some findings show voting decreasing among return migrants (Cámara Fuertes 2004), others show no such decreasing effect on voting among Puerto Rican return migrants after their sojourn (Vargas-Ramos 2005, 2013). This work seeks to expand our knowledge of the effect of population change on electoral participation by examining the dramatic drop in voter turnout in the 2016 elections relative to the previous election cycles in the context of extensive emigration from Puerto Rico.

Puerto Rico's population had a notable decline first noted in the 2010 census, when Puerto Rico lost 2 percent of its population (3,725,789) compared to the 2000 figures (3,808,610); the first time in more than two centuries that the island had lost population. This change in population is evident in Table 3, which shows increases between 2000 and 2004, and between 2004 and 2008. Thereafter, the data show declines in the island's overall population between 2008 and 2012 and between 2012 and 2016. This pattern is also evident when comparing the change in the citizen, votingage population. However, the data show that between 2000 and 2008 this segment of the population nevertheless grew faster than the population as a whole. Moreover, between 2008 and 2016, the citizen, voting-age population declined at slower rate than the population as a whole. The data on voting, however, showed declines since 2000, in contrast to the changes in population overall or the citizen, voting-age population in particular. What is notable is the large decline in total votes cast in the 2016 relative to those cast in 2012, as well as the turnout between those two election cycles calculated using the citizen, voting-age population. Whereas the decline in population between 2012 and 2016 was about 5 percent, the decline in votes cast was 15 percent for the same period. Moreover, turnout among the citizen, voting-age population declined nearly 14 percent. These changes in participation were greater than the declines in population, including that segment eligible to register to vote and turnout to do so (i.e., CVAP). The recent decline in population in Puerto Rico has been the result of emigration, not a decrease in the natural rate of population growth. For instance, between 2010 and 2016, the balance between birth and deaths in the island was a positive number of 45,000 people. During the same period, however, more than 360,000 people left the country.2 Yet this population decrease as a result of migration (about 10 percent) is still lower than the decrease in turnout.

#### Explaining the declining in voting: Methodological considerations

Political science explains voting on largely individual-level as well as systemic factors (Blais 2006). Powerful predictors of voting are the level of socioeconomic status (e.g., income, education, work status), demographic variables (e.g., age, gender), political orientations and attitudes (e.g., interest, knowledge, efficacy, trust) as well as the extent and intensity of associational involvement. Therefore, those individuals with more

schooling, higher incomes, more prestigious occupations, those in older age cohorts as well as those more interested in politics, more knowledgeable about politics and the political system, and with a greater sense of efficacy are more likely to engage in political activity as are those who are more engaged in associational activity (Verba and Nie 1972; Verba et al. 1995). However, these predictors do not always operate consistently in Puerto Rico (Cámara Fuertes 2004; cf. Vargas-Ramos 2005, 2013). There are also systemic variables that incentivize participation in politics; for instance, the receptiveness of the system to popular input, the competitiveness of the party system, the level of patronage and government employment (Rosenstone and Hansen 1993; Cámara Fuertes 2004). Then, there are contextual factors that influence how individuals engage in political activity, for instance, population size and density, residential stability, among others (Huckfeldt 1979; Cho and Rudolph 2008; Darmofal 2006; Geys 2006).

Methodologically, the type of analysis of political activity is limited by the availability of data to subject to analysis. For voting, the ideal source of data would come from those who, being eligible to vote, actually turned out to vote and survey them about their voting behavior and other relevant characteristics that may explain their actions, and compare those responses with those of people who are also registered to vote but did not do so. However, this type of study is not common. Rather, a very large number of studies on voter behavior rely on survey research from a sample of the population at large, not exclusively actual voters, and basing their analysis on the accuracy of the statements respondents provide, without further validation. Alternatively, research also relies on analysis of aggregate voting data. The nature of such analysis depends on the questions under research, but attempts to attribute individual behavior on the bases of aggregate data may lead to ecological fallacies. These fallacies can be avoided with proper methodological specifications, but such research highlights the limitation of needed data.

Table 3: Changes in population and votes

	Change in pop- ulation	Change in total cast	CVAP	CVAP Turnout
2000		2.2%		
2004	2.3%	-1.3%	4.1%	-5.1%
2008	1.2%	-2.4%	3.8%	-5.9%
2012	-5.7%	-3.3%	-4.0%	0.8%
2016	-5.0%	-15.4%	-1.7%	-13.9%

Source: Comisión Estatal de Elecciones de Puerto Rico; U.S. Census Bureau.

The analysis of political behavior in Puerto Rico is often hampered by the limited availability of data. There is a dearth of surveys that may be used for such analysis, and many of the extant surveys are proprietary and unavailable for general use. Moreover, there are no validated surveys available for general use; that is, surveys that verify with the local elections board whether a person who reported they voted in a particular election did in fact do so. Consequently, analysts may have to resort to the analysis of aggregate data to draw inferences and conclusions. One great advantage of using aggregate data is that it is evidence of actual behavior, not simply an unverified response by an individual in a survey who may be responding influenced by social desirability. Moreover, for a number of questions, such as the one posed in this paper, it may be not simply sufficient, but the appropriate level of analysis as well. In fact, for an analysis of changes in demographic characteristics in a political system, an analysis of aggregate voting is rather appropriate. Voting is an individual act, but it is an individual act bounded in a larger system of individuals and institutions. Moreover, the analysis of turnout is the analysis of a system based on the aggregation of individual acts bounded institutionally. Turnout is the characteristic of the system, not of an individual, even if it is a characteristic based on the cumulative activities of individuals.

An analysis at the municipal level also provides 78 observations, rather than simply one.

To establish the extent to which population decline given by migration may have contributed to the decline in turnout I resort to an analysis of turnout at the municipal level. An analysis of registered voter turnout or of votes casts at a general election in Puerto Rico at the municipal level—the dependent variables in this analysis—captures variability in those activities, which allows the measurement of the extent to which variables of interests (such as population movement in and out of the municipio) affect voting. An analysis at the municipal level also provides 78 observations, rather than simply one. For these analyses, I rely on electoral data from Puerto Rico's Board of Election (Comisión Estatal de Elecciones de Puerto Rico) for 2012, 2016 and all other elections going back to 1948. I also rely on population data from the U.S. Census Bureau, using data from the American Community Surveys (5-year estimates) for 2011 and 2016, as the case may be.

Puerto Rico has 78 *municipios*, political and administrative units into which the island is divided. They are the primary sub-state unit, one that may be equivalent of U.S. counties. They fluctuate in geographical extension and size between five square miles and 125 square miles. Their population in 2016 ranged between 1,500 people and more than 363,000. Islandwide, there was a decline in voter turnout between the elections of 2012 and 2016 of more than 22 percentage points, from 78.2 percent to 55.4 percent of registered voters. At the municipio level, the decrease in registered voter turnout between those elections ranged between 19 percentage points and 35

percentage points. Thus, in 2012, turnout at the municipio level ranged between 68 percent at the low end and 87 percent at the high end. In 2016, turnout ranged between 45 percent and 71 percent. Turnout between 2012 and 2016 decreased because there was a decline of nearly 289,000 votes, even though there had been an increase of more than 464,000 people in the number of registered voters (see Table 4). The average decline in vote cast between the last two elections was 15 percent, ranging between 21 percent and 8 percent at the municipal level. In other words, voting decreased in *all* municipios in Puerto Rico between 2012 and 2016, whether measured by registered voter turnout rate or the number of votes cast.

# **FINDINGS**

# A bivariate analysis

As indicated above, there were declines in both the general population as well as in the citizen, voting-age population in Puerto Rico between 2011 and 2016. These proportions might suggest that in fact the drop in overall population as well as the decline in the population eligible to register to vote because they are U.S. citizens, 18 years of age or older, went hand in hand with the decline in both the registered voter turnout rate as well as the number of votes cast in Puerto Rico between 2012 and 2016. However, this was not necessarily the case when analyzing closely the data at the municipal level. Just as the data for the elections between 2012 and 2016 at the state level (i.e., encompassing the entire territorial jurisdiction of the Commonwealth of Puerto Rico) show that there was a decrease in the overall population as a whole and in the population that is eligible to register to vote, as well as a decline in the level of registered voters who turned out to vote and the total number of votes cast between those elections, the proportion in the decrease in population or in the citizen voting-age population at the municipal level was much smaller overall than the decrease in the proportion of registered voters that turned out to vote or the total number of votes cast in that election.

This reduced impact of a municipio's population change or the change in a municipio's citizen, voting-age population observed between 2011 and 2016 on the (percent) difference in votes cast between the elections of 2012 and 2016 was confirmed by a simple regression model. As shown in table 5, the regression coefficients for change in the municipio's population (model 3) and change in the municipio's citizen, voting-age population (model 4) are positive and statistically significant, indicating that an increase in the municipio's population or its citizen, voting-age population would result in an increase in votes cast between elections. A reduction in votes cast would take place if there was a decrease in the municipio's population or in its citizen, voting-age population. However, while these results would indicate a statistically significant impact of population change on voting, in fact, the effect is substantively minimal. This is the case because, even as the population increases, the net effect on votes cast would remain negative. This is illustrated more clearly in Figure 1 and in Figure 2, which provide graphic representation of the effect of population change on votes cast.

	2012	2016	Difference	Percent change
Islandwide				
Registered voters in PR	2,402,941	2,867,557	464,616	19.3%
Total votes cast in PR	1,878,969	1,589,991	-288,978	-15.4%
Votes cast for governor in PR	1,877,179	1,580,184	-296,995	-15.8%
Registered voter turnout rate in PR	78.2%	55.4%		-29.1%
At municipio level				
Average number of votes cast for governor	24,066	20,258	3,807	-15.4%
High end in range of votes cast for governor	177,602	151,349	-262	-8.0%
Low end in range of votes cast for governor	1,495	1,233	-26,253	-21.0%
Average turnout in election for governor	79.4%	56.7%	-22.6%	-28.6%
High end in range of turnout for governor	87.0%	71.0%	-16.0%	-19.0%
Low end in range of turnout for governor	68.0%	45.0%	-23.0%	-35.0%

Source: Comisión Estatal de Elecciones de Puerto Rico.

Table 4b: Population data for Puerto Rico and municipios, 2011 and 2016

	2011	2016	Difference	Percent change
Islandwide				
Total population	3,742,586	3,529,385	-213,201	-5.7%
Total citizen, voting-age population	2,759,510	2,712,072	-47,438	-1.7%
At municipio level				
Average population	47,981	45,248		-5.7%
High end in range of municipio's population	399,474	363,744		-8.9%
Low end in range of municipio's population	1,831	1,508		-17.6%
Average citizen, voting-age population	35,378	34,770		-1.7%
High end in range of municipio's CVAP	282,231	267,312		-5.3%
Low end in range of municipio's CVAP	1,450	1,120		-22.8%

Source: U.S. Census Bureau, American Community Survey (5-yr. estimates), 2011 and 2016.

As can be appreciated, in municipios where there was no growth in their population between 2011 and 2016, votes casts between 2012 and 2016 decreased by 14.2 percent (see Figure 1). In municipios whose population grew at 5 percent—the maximum growth observed between 2011 and 2016—the proportion of votes cast declined 13 percent. In municipios whose population declined by 18 percent—the most it declined during the period under analysis—the proportion of votes cast declined by 18.6 percent. A similar effect is seen in municipios without any growth in their citizen, voting age population. Such municipios experienced a decline of a 15.2 percent in votes cast (see Figure 2). Even for municipios whose citizen, voting-age population increased by the maximum observed between 2011 and 2016 (9%), the proportion of votes cast still declined by 13.2 percent. In municipios with a 23 percent decline in the citizen, voting-age population—the maximum decline experienced—votes cast declined by 20.2 percent. In other words, irrespective of the volume in the increase or decline in population, the number of votes cast declined between election years by a margin that exceeded any population change.

While change in a municipio's overall population or its citizen, voting-age population had a positive and statistically significant effect on the proportion of votes cast between 2012 and 2016, albeit not in a way that overdetermined the magnitude of the decline in votes cast, the effect of population change on the turnout rate of registered voters had not statistically significant impact whatsoever (see models 1 and 2 in Table 5).

# Multiple variable analyses

The effect that an independent variable may hold in a bivariate analysis may include effects of other factors not included in a model. To account for the possible effect(s) of such omitted variable(s), I specify a more complete model. I include the following predictors of participation highlighted in the literature based on their theoretical importance, relevance or empirical impact: the size of the population, as greater size has been established by analysis of aggregate data to lower the electoral participation, given the greater impersonality of the political participation system for those who live in highly populated jurisdiction, is likely to produce as well as the calculus that one single person's vote is less likely to make an large impact in the final electoral outcome (Carr and Tavares 2014; Tavares and Carr 2013; Frandsen 2002; Geys 2006); a higher density of the population on the other hand is observed to increase voting as it promotes density of networks and informational exchanges as well as mobilization efforts (Carr and Tavares 2014; Tavares and Carr 2013; Cho et al. 2006); the stability of a jurisdiction, measured by the percentage of homeowners in a jurisdiction as well as the percentage of residents who resided in the same residence the year before, has been empirically demonstrated to increase turnout as permanence imbues voters with more information about the electoral field and homeowners appear to have a higher stake in electoral outcomes (Geys 2006; Kohfeld and Sprague 2002); heterogeneity in a community is also argued to promote participation, and social inequality is one such form heterogeneity (Oliver 2000), measured in terms of income inequality captured by the

Table 5: Effect of population change on change in voter turnout and change in vote cast, 2012-2016 (unstandardized OLS regression coefficients; standard error in parenthesis)

	Percent change in voter turnout			change e cast
	Model 1	Model 1 Model 2		Model 4
Constant	281*** (.006)	286*** (.004)	142*** (.006)	152*** (.003)
Population percent change, 2011-2016	.101 (.103)	-	.243** (.094)	-
Change in pct of CVAP, 2011-2016	-	.062 (.085)		.217** (.076)
R-square	0.013	0.007	0.081	0.096
Adjusted R-square	0	-0.006	.069**	.084***
F-ratio	0.967	0.543	6.665	8.059
Degrees of freedom	77	77	77	77

<sup>\*=</sup>p<.1; \*\*=p<.05; \*\*\*=p<.01.

GINI index as well as the percent of the population in the labor force as well as the municipalities median household income; in Puerto Rico patronage is theorized to impact the motivation to participate at election time (Barreto and Eagles 2000; Cámara Fuertes 2004), and it is measured in this model with the percentage of the population employed in government; partisanship is very important mobilizational variable as is the closeness of an election (Barreto and Eagles 2000; Cámara Fuertes 2004; Geys 2006; Blais 2006). The more closely contested an election is, the more incentive a voter has to turnout out to vote; and mobilization agents such as political parties also have a greater incentive to turn out both loyal followers as well as inconstant voters to support their cause. Moreover, voters with a partisan attachment have a greater motivation to participate at election time. Such partisanship and closeness of an election is measured by a moving average in which difference in support for the PNP candidate for governor (over the PPD candidate for governor) at the municipal level is compared with the support islandwide for this PNP candidate over four consecutive elections (2000-2012). This index, therefore, captures two important components: partisanship in a municipality over four election cycles prior to the 2016 elections, as well as the closeness of the elections in those cycles.

A multiple variable regression analysis of registered voter turnout at the aggregate level shows that the main independent variable of interest—the percent change in a municipio's population—had a statistically significant impact on the percent change in turnout between the 2012 and 2016 elections at the municipio level in Puerto Rico, but only at a lower level of significance (p=.077) than is customarily ac-

-25% -20% -15% -10% -5% 0% 5% 10% 15% 20% 25% -5% Percent change in votes cast 10% -20% -25% Percent change in municpal population 2011-2016.

Figure 1. Effect of municipal population change on votes cast for governor, 2012-2016



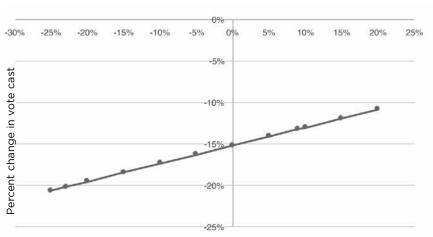


Figure 2. Effect of percent change of citizen, voting-age population on votes cast for governor, 2012-2016

Percent change in municipios citizen, voting-age population 2011-2016.

cepted (p= 0.05 or smaller) (see model 1 in Table A1 in the Appendix). Moreover, the results also indicate that even an increase in a municipio's overall population, say, the maximum 5 percent growth, would still result in a 24.7 percent decline in registered voter turnout, other variables held constant. (A maximum decrease in municipal population of 18% would result in a 28.7% decrease in turnout.) On the other hand, the change in a municipio's citizen, voting-age population did not even register a significant effect on the change in registered voter turnout between elections at even a lower level of statistical significance (see model 2 in Table A1). Therefore, these variables that might indicate directly a relationship between migration and electoral participation, given by the fact that between 2011 and 2016 population changes overall were driven by migration and not natural growth, do not appear to have any discernable independent impact on the turnout of registered voters. In these cases, the multivariate results for the effect of population change on registered voter turnout mirror those of the bivariate regression analysis.

The turnout of registered voters at election time may not be affected by population changes or changes in the citizen, voting-age population. However, these variables do have a statistically significant impact on another measure of voting—the number of votes cast at election time. An increase in a municipio's population between 2011 and 2016 resulted in a lower decrease in the percentage of vote casts between 2012 and 2016, while a decrease in population resulted in greater decline in votes cast, all other factors held constant (see model 3 in Table A1). On average, the municipal population declined 5.1 percent between 2011 and 2016, and at that rate of population decline, the percentage of vote cast declined 15.5 percent. In municipios with a population increase of 5 percent, the maximum noted, the decline in votes cast was 12.6 percent. On the other hand, in municipios with a decrease of 18 percent in population, the largest decline in the analysis, the decline in votes cast was 19.2 percent.

Similarly, when assessing the impact in the change in the citizen, voting-age population, municipios with increases in this variable experienced a lower decline in votes cast than municipios with a decrease in the CVAP (see model 4 in Table A1). On average, there was a decline of 1.03 percent in the citizen, voting-age population at the municipal between 2011 and 2016. In municipios that saw this rate of decline, the proportion of votes cast decreased by 16.1 percent. Where the voting-eligible population increased, say, by 9 percent, the largest increase experienced, the percent decline in votes cast was 13.8 percent; while a 23 percent decline in the CVAP, the largest experienced in a municipio, the percent of votes cast declined 21.2 percent.

It is in this measure of participation (i.e., votes cast) over time that one can appreciate the effect of population change on voting between 2012 and 2016, providing some evidence of the demographic effect of the economic crisis on the political system. These effects of change of population in general and the population that is eligible to vote on the vote are statistically significant and independent of other factors considered in the analysis. Yet, they are still not large enough to account for the large drop in votes between the 2012 elections and those held in 2016.

#### Additional findings

Other statistically significant results from the multiple variable regression equations indicate that the effects of population size on registered voter turnout and votes cast between elections operated in a manner described by the literature on voting—the larger the population size of a municipio, the lower the turnout rate, or more specifically in this analysis, the greater the decline in the change of voter turnout or votes cast between 2012 and 2016. The density of the municipio's population also behaves in the manner observed in other research, although only as measured by votes casts, not turnout by registered voting: the greater the density, the higher the change in votes casts (or, effectively, the lower the decline in the change of votes cast).

Separately and independently from the change in the municipio's population or its citizen, voting-age population is the effect on voting of the change in stability as measured by the change in the percentage of the municipio's population that resided in the same home the year before. Contrary to what would be expected, greater stability in a municipio's population actually led to a greater drop in votes cast between elections. On average, the proportion of a municipio's residents who remained in their home relative to the previous year increased slightly—by 0.74 percent. In those municipios the percent change in votes casts between 2012 and 2016 decreased by 15.5 percent, while holding all other factors constant and including in the equation a measure of total population change (see model 3 in Table A1). But in municipios in which the percentage of residents lived in the same home the year before decreased by 15 percent, the percent of votes cast decreased by 11.7 percent. Moreover, in municipios in which residents remained in the same home from the previous year increased by 15 percent, the percent change in votes cast decreased by 19 percent! Results are very similar when including a municipio's change in its citizen, voting-age population instead of its population change (see model 4 in Table A1). This finding is not just contrary to expectations but it is also intriguing. Instead of serving to ameliorate the precipitous drop in votes cast between elections, stability in a municipio's population appears to be driving the downward trend in voting between 2012 and 2016. This finding raises the question of whether it is precisely the most stable elements of a municipio's population that are most dissatisfied with the political system.

One additional result is the effect of sustained support for the PNP in elections prior to 2016. This measure of partisanship and closeness of elections, captured in the four elections moving average (2000–2012), however, is inconsistent. It has a statistically significant effect on the change in votes cast between elections, when including in the equation a municipio's population change (see model 3 in Table A1). The effect is positive, indicating that a municipio's steady support for PNP candidates over four elections cycles between 2000 and 2012, increases the number of votes cast between 2012 and 2016. This is a dampening effect, since, as noticed throughout, the drop in votes casts has been precipitous. Therefore, municipios with the most constant support for the PNP experienced a large drop in the number of votes casts, but lower than municipios with less support for the PNP, with all other factors held constant.

# The exhaustion of the participatory political regime: unsatisfactory political choices

The results presented above reveal firmly how population change in Puerto Rico did not substantively affect electoral participation between 2012 and 2016, if at all. Emigration from the island is not what accounts for the steep and unprecedented decline in turnout in the 2016 elections relative to previous electoral contests. If this is the case, then, what explains the sharp drop in electoral participation among the Puerto Rican electorate? In the space that follows, I outline an argument to serve as a hypothesis to test in future research to account for steep decline in voter turnout in Puerto Rico. This hypothesis centers on the exhaustion of the participatory regime in Puerto Rico as a result of the declining efficacy and effectiveness of the political apparatus to solve basic issues of economic growth.

The deep link between an electoral system based on extensive mass participation and the legitimization of the political system was the work of one of the leading political parties in Puerto Rico during the past eighty years: the Popular Democratic Party (PPD).

As stated above, voting in general and high rates of electoral participation (i.e., turnout at election time) in particular are highly significant in terms of both procedural capacity of the political system as well as symbolically. The deep link between an electoral system based on extensive mass participation and the legitimization of the political system was the work of one of the leading political parties in Puerto Rico during the past eighty years: the Popular Democratic Party (PPD). This party was the political force that gave life to and shaped the present political regime that governs the relations between Puerto Rico and the United States: the Commonwealth. A populist mass-based party, the PPD sought in large electoral mobilization the consolidation and legitimization of a political project that sought for Puerto Rico greater political autonomy and self-government from the United States as well as its economic development. Moreover, once the electoral arena became a highly contested two-party system, with the PPD and the New Progressive Party (PNP) alternating in power since 1968, there was an even greater incentive for both political forces to mobilize their bases at election time.

[Initially the highest leadership of the PPD saw the Commonwealth regime as a way station to independence, as Puerto Rico achieved a level of economic development that would allow it to become a self-sustaining nation-state. However, the economic development projects faltered. The Puerto Rican government under the leadership of the PPD did achieve a profound transformation of the economy from an eminently agricultural one to one based on manufacturing to the present one based mostly on services and retail trade (Dietz 1986; Pantojas-García 1990), with significant government sector involvement throughout. However, the PPD-led government was never fully able to address structural imbalances in its budgets as it attempted to maintain economic growth that addressed issues of extensive poverty throughout the island.]

The pillars of the PPD governing project were therefore political autonomy from the United States and economic growth. Political autonomy for Puerto Rico was boosted in the historical context it emerged: the Cold War and the decolonization process throughout the world after the Second World War. Economic development projects also received a boost from the international context in which Puerto Rico sought to expand its economic growth through export-led industrialization based on extensive tax incentives and subsidies for "foreign" investors.

The pillars of the PPD platform, however, are crumbling. Its formula for economic growth has been exhausted. The growth of bilateral and multilateral trade agreements (NAFTA, CAFTA, WTO) has reduced significantly one of the comparative advantages of Puerto Rico in economic terms: unrestricted entry of goods and services into the U.S. market (Castañer and Ruiz 1997). As a result, Puerto Rico-based producers have to compete more aggressively in the United States with producers from other economies for the goods and services they produce. As a result of that increasing competition, some of those producers have left the Puerto Rican market for other locations that make them more competitive. The elimination of the federal fiscal exemptions under section 936 of the Internal Revenue Code by 2006, which triggered the present economic crisis, eliminated the other comparative advantage that Puerto Rico had around direct "foreign" investments, which subsidized the export-led model of economic development. As a result, direct investment in Puerto Rico from abroad has declined, factories have closed or retrenched, and the economy is still unable to provide jobs for all those who want one as well as unable to entice people outside of the labor force to venture into it. The PPD therefore does not appear to have a viable model of economic development that it can present to the electorate in a convincing manner.

Politically, the PPD suffered a major setback as a result of two salient U.S. Supreme Court decisions (i.e., Puerto Rico v. Sanchez-Valle [15-108] and Puerto Rico v. Franklin California Tax Free Trust [15-233]). In essence, these two rulings underscored the complete subordination of Puerto Rico to the Congress of the United States, according to the territory clause of the U.S. constitution. As a result, these decisions undercut the argument that the PPD had advanced for decades that, upon the enactment of Public Law 600 in the United States in 1950, the ratification of this law by the Puerto Rican electorate in a plebiscite in 1951, and the ratification of Puerto Rico's constitution by the U.S. Congress in 1952, Puerto Rico and the United States had entered into a "compact," whereby changes to the political relationship between the two of them had to be negotiated bilaterally (Trías Monge 1997; Thornburgh 2001). Such position had already been questioned administratively by two separate Presidential task forces on the status of Puerto Rico (2005 and 2011), which, in response to claims for further autonomy for Puerto Rico, had already underscored that one Congress could not bind permanently another by submitting itself to mutual-consent provisions involving a territory.

A less critical, yet still very significant political development undermining the political project of the PPD is the result of a non-binding plebiscite in 2012, in which,

for the first time, a majority of eligible voters in Puerto Rico (53.97%) indicated they did not want to maintain the current territorial status. These results were significant not because they departed notably from the actual preference of most voters over the last three decades. They did not. Previous non-binding plebiscites in Puerto Rico (in 1993 and 1998) indicated that a simple majority (50.7%) or near majority (49.3%) of voters wanted non-territorial alternatives to the political relationship with the United States (see Table 6). (It must be noted that the wording of those plebiscites did not include explicitly the concept or terminology of territory, but rather competing political status options.) The 2012 plebiscite, however, was the first time that Puerto Rican voters explicitly voted against a territorial option for Puerto Rico in explicit terms. As a political force that has advocated for nearly four decades a "permanent" relation with the United States, but not by joining the United States as a constituent member on equal standing as other states, the PPD is witnessing a narrowing set of options to its political project and an electorate that is decreasingly supportive of those options.

But the political crisis in Puerto Rico is not limited to narrowing options for political and economic projects for the Popular Democratic Party. Other political forces face similar pressures. This is most notably the case for the Puerto Rican Independence Party (PIP) and the larger Puerto Rican independence movement. The electoral outcomes for the last half a century, whether in regular government elections or plebiscites on the status question, have shown that the overwhelming majority of Puerto Rican voters do not want independence for Puerto Rico. Rather, most Puerto Rican voters want a permanent relationship with the United States whether as a territory with autonomy or as a state of the Union. Certainly, the repression the pro-independence movement has suffered under U.S. colonialism has contributed to its diminished political and mobilizing capacity (Bosque-Pérez and Colón Morera 1997). Nevertheless, the PIP has not been able to articulate a convincing economic program for the broad electorate. There is fear in Puerto Rico that independence would bring decreasing economic capacity and more widespread poverty, so that the island's economy would come to resemble those of surrounding Caribbean and Central American countries—a prospect that does not appear to be appealing to working and middles classes in Puerto Rico. A permanent relationship with the United States as a territory or as a state of the United States would forestall the possibility of further immiseration. Moreover, the PIP and other pro-independence forces have not been able to project the capacity to govern under the current system. A handful of legislators from the PIP has been elected at the municipal level and to the island's legislature over the decades, but these political figures have not been in position to lead an executive branch of government, municipal or otherwise, that may show the electorate a governing capacity from this segment of the political class.

While the diminished prospects for the advocates of autonomy or independence might suggest a rosy picture for advocates of statehood for Puerto Rico, this is not necessarily the case. Advocacy for statehood does have the advantage that statehood for Puerto Rico may appear to the electorate as a possibility that is open and available. While Commonwealth-style autonomy may be running out of steam, statehood is still a feasible possibility that has not been realized, and as such it remains a goal for which to strive, toward which the electorate may turn. Therefore, statehood is a political option that may enjoy the potential to generate enthusiasm around which to mobilize an electorate; more so as other alternatives appear diminished. As a result, statehood may appear as a viable and credible future political prospect. Whether this possibility is in fact achievable is not a forgone conclusion, nor, for reasons provided below, very likely.

Moreover, proponents of statehood have yet to articulate a concrete and convincing project for the economic development of the island that goes beyond parity with other states in federal funding. The principle of equality between states will make Puerto Rico eligible for parity in funding from the U.S. government, but that same principle will preclude Puerto Rico from being given preferential treatment, for instance, in the issuance of federal tax incentives, such as those that until recently had sustained economic development in Puerto Rico. Moreover, parity will also subject Puerto Ricans to U.S. federal income taxes, from which they have been largely exempt given its territorial status. Admittedly, the number of potential taxpayers subject to income taxes will be reduced in an island in which presently only 45 percent of the population 16 years and older is in the labor force, 45 percent of all persons lives under the federal poverty level and 38 percent receives food assistance through a program similar to the food stamps program/SNAP. While statehood may increase the resources for the social safety net a large segment of the Puerto Rican population relies on, this political status does not provide in and of itself an evident economic comparative advantage for Puerto Rico in relation to the other fifty states of the American union or the counties of the circum-Caribbean region. More importantly, advocates for statehood have not developed or presented to the electorate such an economic development plan under statehood, and implicitly and explicitly are relying instead on a presumed windfall of federal funding under that political status to address not only the economic crisis Puerto Rico is undergoing, but its ongoing economic development as well.

A reliance on the principle of parity, on the one hand, and, on the other, of political equality and equal treatment for U.S. citizens in Puerto Rico, are also what is driving advocacy for statehood in Puerto Rico, particularly as it respects prodding the U.S. Congress to address the island's status question. This approach based on self-righteous demands for equal treatment by granting the U.S. citizens of the territory statehood may play well among a large segment of the electorate in Puerto Rico, but it neglects the political dimensions of admission to the Union as they play out in Washington, DC. There is no actual interest in the Congress of the United States to address the issue of Puerto Rico's status. There is no impending crisis affecting the United States that will force the United States government to address the issue of Puerto Rico's status as there may have existed after the Second World War with the advent of the push for decolonization worldwide and the deepening Cold War. Moreover, there is little incentive to respond to a petition from Puerto Rico for admission to the union as a state, and there are substantial political reasons why such a

petition would not be taken up. If Puerto Rico were to become a state, it would have more representation in the U.S. House of Representatives than twenty-one states of the Union, with all the attendant political weight such representation may bring to the island in Congress, particularly as it may respect funding. Moreover, of the approximately five members of the House of Representatives Puerto Rico who may be entitled based on population, at minimum four, and possibly all five prospective representatives are likely to be Democrats, eliciting Republican opposition to admit such an overwhelming Democratic state. Underscoring this point is the fact there is no other territory that might be admitted along with Puerto Rico that might balance its Democratic predominance. The population in Washington DC, the U.S. Virgin Islands, Guam or American Samoa numbers in the hundreds of thousands, too small compared to the 3.1 million inhabitants of Puerto Rico at present. Furthermore, these territories are also either solidly Democratic or lean in that direction. Republican opposition to admitting Puerto Rico is very likely. In addition, there will be little appetite among Republicans in Congress to admit a territory that is so reliant on federal funding for its population's well-being as the Republican current political project entails reducing the size of government and furthering the role of states in the administration of government. Puerto Rico's current fiscal crisis underscores the point that the Government of Puerto Rico is incapable of sustaining itself (i.e., meeting its financial obligations), undermining one of the practical principles of incorporation of a territory as a state. Puerto Rico's historical and current situation does not make it a very attractive candidate for statehood under these circumstances.

Domestically, the PNP still has to contend with the political reality that there is sustained opposition in the electorate to statehood for Puerto Rico. This opposition springs from the advocates of independence as well as the advocates of autonomy. Support for statehood, as established in non-binding plebiscites, has shown increasing support. Since 1967, when that status option obtained 39 percent of the vote, it increased to 46 percent in 1993 and 1998, and then to 61 percent in 2012 and 97 percent in 2017 (see Table 6a). These summary numbers, however, require explanation. The 1967 plebiscite was boycotted by the leading pro-statehood party—the defunct Partido Estadista Republicano (PER)-as well as the PIP. This boycott therefore obscures the actual level of support for those status options. Similarly, the plebiscite in 2012 saw a roll-off in the number of voters who turned to the polls to cast a vote but did not vote for the status option choices provided. As mentioned above, this is the plebiscite that established that a majority of voters opposed the present territorial status. The number of voters who cast a vote on that question was 1,798,987.3 Those who then cast a vote for one of three status options offered on the ballot numbered 1,363,854 (see Table 6b). Using this figure as denominator, the percentage for the 834,191 votes the statehood option received was 61 percent. Using as denominator the total number of voters who cast a ballot in that election but abstained from choosing a status option would yield statehood a level of support of 46.3 percent. Then there is the 2017 plebiscite, which showed a 97 percent level of support for statehood. However, that status option only received 508,862 votes in 2017 compared to the 834,191 it had received five years before, in an election that saw 523,891 voters turn out to the polls. While supporters of statehood may correctly claim that their status option received 97 percent of the votes cast, it may not be able hold that the elections represented a victory when there was a very active boycott to the process and they were able to bring to the polls fewer supporters to their cause in 2017 than in 2012.

A public opinion poll conducted six months before the 2016 general elections found an extraordinary lack of trust in Puerto Rican governmental institutions across the board.

Both leading political parties—the PPD and PNP—which have alternated in heading the insular government as many times since 1968, have proven incapable of addressing effectively the present economic crisis which began in Puerto Rico in 2006. They have both been blamed for contributing to the practice of borrowing money to cover deficits in the government's operation budget (Federal Reserve Bank of New York 2014). They have also shared in profligate spending to, among other things, sustain patronage support. Indeed, the island's real GNP has declined in 9 of the last 13 years and has actually had negative growth (contracted) in 9 of those 13 years (Marxuach 2015), a period during which both parties alternated in holding the reins of power. Moreover, since 1998, Puerto Rico's governments has run budget deficits on 15 of the 16 fiscal years. As the cost of borrowing to cover these budget deficits increased, the percentage of the budget dedicated to debt services has increased at twice the rate of growth of the overall governmental expenditures (Marxuach 2015). The fiscal crisis in Puerto Rico had reached such a point that the government was on the verge of insolvency, unable to fulfill its debt obligations, and had sought to restructure its debt, but unable to do so under extant federal law. Consequently, in exercise of its constitutional authority and as the institution that holds sovereignty over Puerto Rico, the Congress of the United States authorized the creation of the Financial Oversight and Management Board for Puerto Rico in 2016 "to achieve fiscal responsibility and access to the capital markets."

These actions, I argue, have led to a loss of faith in Puerto Rican governmental institutions and its political class. A public opinion poll conducted six months before the 2016 general elections found an extraordinary lack of trust in Puerto Rican governmental institutions across the board. Ten percent of those polled trusted the incumbent governor, 36 percent had trust in an unnamed future governor, 11 percent trusted the local House of Representatives, 12 percent trusted the local Senate and 19 percent trusted the local judicial branch (López Cabán 2016). By way of contrast, federal institutions, such as the Federal Bureau of Investigations and the U.S. Supreme Court, received levels of trust upward of 80 percent; and even the Financial Oversight Board enjoyed a 79 percent level of trust among Puerto Rican respondents.

Table 6a: Support for statehood for Puerto Rico in plebiscites (percentage)

	1967	1993	1998	2012	2017
Statehood	39	46.3	46.5	61.16	97.13
Commonwealth	60.4	48.6	-	-	-
Current territorial status	-	-	0.1	-	1.35
Sovereign ELA (Free Association)	-	-	-	33.34	-
Free Association	-	-	0.3	-	-
Independence	0.6	4.4	2.5	5.49	-
Independence/Free Association	-	-	-	-	1.52
None of the Above	-	-	50.3	-	-

Source: Comisión Estatal de Elecciones de Puerto Rico.

Table 6b: Support for status options for Puerto Rico in plebiscites (votes cast)

	1967	1993	1998	2012	2017
Statehood	274,312	788,296	728,157	834,191	508,862
Commonwealth	425,132	826,326	-	-	-
Current territorial status	-	-	993	-	7,048
Sovereign ELA (Free Association)	-	-	-	454,768	-
Free Association	-	-	4,536	-	-
Independence	4,248	75,620	39,838	74,895	-
Independence/ Free Association	-	-	-	-	7,981
None of the Above	-	-	787,900	-	7,981
Total number of votes cast	703,692	1,690,242	1,560,431	1,363,854	523,891
Total registered number of voters	1,067,349	2,312,912	2,197,825	2,402,941	2,260,804

Source: Comisión Estatal de Elecciones de Puerto Rico.

Even just before the 2016 general elections *la Junta* enjoyed a 62 percent favorability rating among respondents (López Alicea 2016). Furthermore, as one of the reviewers of a previous version of this paper has suggested, the creation of the Financial Oversight Board may have undermined local political elites and institutions, diminishing the need among the electorate to participate in the election of a government whose political autonomy and fiscal authority have been compromised.

Whether low level of support for local political institutions and government leaders increases or erodes further as a result of the insufficient response to the crisis created by hurricanes Irma and Maria is yet to be determined. Moreover, the poor response by federal agencies (e.g., Federal Emergency Management Administration, U.S. Army Corps of Engineers) may reverse the greater level of trust in U.S. government institutions and agencies among people in Puerto Rico, perhaps further disheartening Puerto Rican voters and undermining even more their diminishing faith in any type of governmental institution on the island. In fact, this is evident in recent public opinion polls. The assessment of leading governmental figures and institutions among the people of Puerto Rico in the aftermath of hurricanes Irma and Maria indicate that the incumbent governor had a favorability rating (i.e., good or very good) of 37 percent; FEMA, 36 percent; local electric power utility (PREPA), 28 percent; the U.S. Congress, 25 percent; the Financial Oversight Board, 23 percent; and the President of the United States, 17 percent (El Nuevo Día 2018a). The job approval for the incumbent governor, however, experience a marked decline between June 2017 (39%) and November 2018 (25%) (El Nuevo Día 2018b). The disenchantment with all government institutions on the island, whether federal or Commonwealth is palpable.

This diminishing faith in governmental institutions appears to be setting the stage for a legitimacy crisis in governmental institutions. This seemingly increasing lack of faith, I propose, is a leading explanation to the extraordinary decrease in the turnout rate in Puerto Rico. Between 1948, the first time Puerto Ricans were able to elect a governor, and 2012 the turnout rate ranged between 73 percent and 89 percent of registered voters (see table 1). In 2016, however, only 55 percent of registered voters turned out to vote in the elections, an unprecedented proportion of the electorate. Even when using the citizen voting-age population (CVAP) as a reference category, the level of participation between 1972 and 2000 ranged between 74 percent and 82 percent. Between 2000 and 2016, using the more stringent reference category of the citizen voting-age population to calculate electoral participation, turnout ranged between 75 percent and 59 percent, with the lowest level of turnout taking place in 2016 (see Table 2). Voters in Puerto Rico are not turning out to vote seemingly because political parties and candidates are not offering them credible alternatives to solve the serious economic problems facing the island. Moreover, the unconvincing performance of the two leading political parties at the helm of the government seems to be undermining the electorate's confidence in their ability to provide good governance to the island. These assertions, however, need to be tested empirically. The results from public opinion survevs referenced immediately above provide some evidence for these statements, but are insufficient unless tied to action (i.e., voting or abstention). It would have been ideal if there had been public opinion polls conducted at election time (i.e., exit polls) or shortly thereafter; particularly polls that surveyed both registered voters who turned out to vote and registered voters who did not turn out to vote. Lacking this evidence, we may need to wait until the next electoral cycle in 2020; at which time opinion polls may be conducted in panel form prior to the elections and then, in their wake, to establish whether voters' attitudes toward the government and the political parties and candidates contesting the elections influenced their actions at the voting booth. Moreover, the elections in 2020 would provide additional evidence of whether the results in 2016 were idiosyncratic and unique or whether they represented an inflection point in the political trajectory of Puerto Rico.

# The role of independent candidacies on turnout

Reviewers of a previous version of this paper have indicated the importance of assessing the impact of the seemingly increased number of independent candidacies for governor as an indicator of the displeasure with the choices provided by political parties among the electorate, but an indicator nevertheless of support for the political participation system. Certainly, the fact that voters were presented with alternatives to those provided by established political parties and that those voters responded positively by providing unprecedented support for those independent candidates would be indication of continued support for the extant electoral system. In fact, the 2016 elections were unusual also in the high number of independent candidacies for governor and the support they received. In fact, they were the highest of any elections held in Puerto Rico since 1972 (see Table 7). While the level of support for independent candidacies before 2016 ranged between 3.3 percent in 2004 and 7.6 percent in 1984, independent candidates for governor collectively garnered 19 percent of the total vote for governor. This fact notwithstanding, it remains the case that even with this level of support for independent candidacies, and by extension the electoral regime, the turnout rate in those elections was nearly 23 percentage points lower. It might be argued that without independent candidacies the turnout rate might have been even lower than the historically low 55 percent of registered voters to turned to the polls.

The proposition that independent candidacies for governor might have had an effect on turnout is nevertheless a fair one and worthy of testing. I therefore specified another multiple variable regression model to test the independent effect voting for independent candidates for governor might have had on the turnout of registered voters or votes cast between 2012 and 2016. To that effect, I constructed a variable that averaged the difference in the rate of voting for independent candidates for governor at the municipal level from what that rate was islandwide between 1972 and 2012 to capture the regional strength of support for independent candidacies over time. The results indicate that introducing support for independent candidacies does not have a statistically significant impact on percent change in votes cast for governor between 2012 and 2016, nor does it affect the effects that change in population

at the municipal level nor change in the citizen, voting-age population the percent change in votes casts between those elections (see model 3 and 4 in Table A2 in the Appendix). Independent candidacies do have a statistically significant impact on the percent change in voter turnout between 2012 and 2016 (see model 1 and model 2 in Table A2). However, the effect is negative. That is, the greater the percentage of the vote for independent candidates for governor at the municipal level, the lower the turnout rate in 2016. It appears that it is in municipalities whose voters were already inclined to move away from the candidates presented by political parties in previous election that the greatest decline occurred. Might this be an indication that it is among those voters that the greatest dissatisfaction existed? Further research awaits a fuller answer to this question. Aside from this finding, it is pertinent to note that in spite of the statistically significant effect that independent candidacies have on the turnout of registered voters, the effect of population change on turnout and of change in the citizen, voting-age population on turnout remain essentially unaltered. The effects of those other variables of interest remain insignificant statistically. Overall, these results indicate that even when introducing another variable into the equation, the effect of population change on voting between 2012 and 2016 remains unaltered: migration did not affect voting meaningfully.

# Conclusion

Puerto Rico had been experiencing slight but steady declines in its high level of electoral participation, in the order of one to three percentage points per election, for two decades. In 1992, the turnout rate was 85.2 percent. In 2012, it was 78.2 percent. However, between 2012 and 2016, participation fell by 29 percent to an unprecedented low rate of 55.4 percent of registered voters. The accompanying population decline that has been taking place in Puerto Rico since the 2000s, however, has not been the reason for the decline in turnout at election time between 2012 and 2016. Rather, it appears that there is widespread disaffection with a political regime that is unable to address very basic economic, political and social demands. Moreover, alternatives to the extant regime appear equally unpalatable. As a result, the electorate is turning off.

Emigration may appear correlated, but it is not a cause of the decline in electoral turnout in Puerto Rico.

Emigration may appear correlated, but it is not a cause of the decline in electoral turnout in Puerto Rico. This depressing effect of emigration on voting in Puerto Rico is more evident only in the amount of votes cast in elections. Since 2000 the total number of votes for governor has declined at a rate between one and three percent from election. The exception again was the decline between 2012 and 2016 elections, when the total number of votes cast declined by 15 percent. Yet, while statistically

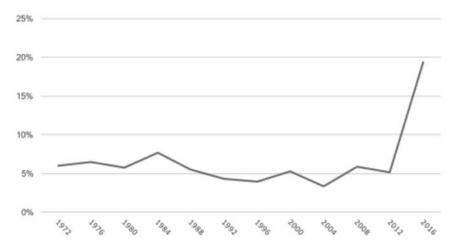


Table 7. Rate of Voting for Governor from Smaller Parties or Independent Candidacies

Source: Comisión Estatal de Elecciones de Puerto Rico.

significant, the effect of change in population or in the citizen, voting-age population between 2011 and 2016 on the percent change of votes casts at the municipio level do not change the overwhelming decline in votes casts in the 2016 elections. It declined 15.4 percent on average, and it declined in every single municipio in Puerto Rico in the range of 8 percent to 21 percent.

The causes for the large decline in voting in Puerto Rico are elsewhere, not in the demographic change taking place on the island over the previous five years. These findings are robust and consistent. This analysis suggests that the cause of the political crisis in Puerto Rico may be the disaffection with the political parties in the system and the political class that leads them. But further research is needed for substantiate this proposition.

#### NOTES

<sup>1</sup> Electoral participation can be measured by the proportion of registered voters to turn out to vote at any given election. This is generally the rate of participation reported by election boards when releasing reports. However, registered voters are a subset of the larger population that resides in a particular jurisdiction. The citizen, voting-age population (CVAP) is another of the population that resides in a jurisdiction, but it is larger than the number of registered voters, since not every person that is eligible to vote, by virtue of the fact that they are citizens and eighteen years of age or older, does in fact register to vote. Consequently, the proportions of electoral participation based on the CVAP tend to be lower than those using registered voters as the denominator. The CVAP is useful when comparing participation over the long term since it captures what percentage of those potentially eligible to vote does turn out, whereas the turnout rate based only on registered voters may be affected by whether the local board of elections are more or less diligent or aggressive in purging voter rolls from election to election.

#### <sup>2</sup> U.S. Census Bureau.

<sup>3</sup> Turnout for the 2012 elections in which questions on the status of Puerto Rico were asked included not only those for the plebiscite, but also for the general elections for governor, legislature, mayors and municipal councils for that electoral cycle. For the 2012 elections, the Elections Board (i.e., Comisión Estatal de Elecciones) reported a total of 2,402,941 registered voters. According to the actual results provided after the canvass of votes (i.e., escrutinio de votos), the Elections Board accounted for 1,878,969 registered voters turning out to vote (78.19%). Of these 1,878,969 voters who turned out on election day, 1,877,179 voted for candidates for governor (78.12% turnout), while 1,798,987 voters (74.87%) voted on the first plebiscite question (i.e., "Do you agree that Puerto Rico should have its present form of territorial status?" [Yes/No]). The number of registered voters who then answered the question on non-territorial options ("Please, mark which of the following non-territorial option would you prefer: Statehood, Independence, Free Associated State") was 1,363,854 (56.76%). The number of votes obtained by the Statehood option was 834,191; Independence, 74,895; and Free Associated State, 454,768. If the turnout rate for each preferred status option were to be divided by the total number of duly registered voters (2,402,941), then 34.72 percent supported Statehood; 18.92 percent preferred Free Associated States; and 3.11 percent favored Independence. If the denominator used to determine turnout for this status option questions were based on the total number of voters who voted on this question (1,363,854), then Statehood received 61.16 percent support; Free Associated States received 33.34 percent; and Independence, 5.49 percent. If the total number of voters accounted for the Board of Elections as having voted in those elections overall (1,878,969) were used as denominator, then the level of support for Statehood would be 43.96 percent; Free Associated State, 24.2 percent; and Independence, 3.98 percent.

#### REFERENCES

- Anderson, Robert W. 1983. The Party System: Change and Stagnation. In *Time for Decision: The United States and Puerto Rico*, ed. Jorgen Hein. 3–25. Lanham, MD: The North-South Publishing Co.
- Barreto, Amílcar A. and D. Munroe Eagles. 2000. Modelos ecológicos de apoyo partidista en Puerto Rico, 1980-1992. *Revista de Ciencias Sociales* 9, 135–65.
- Bayrón Toro, Fernando. 2000. Elecciones y partidos plíticos de Puerto Rico, 1809-2000. Mayagüez, PR: Editorial Isla.
- Blais, Andre. 2006. What affects voter turnout? Annual Review of Political Science 9, 111-25.
- Bosque-Pérez, Ramón and José Javier Colón Morera. 1997. *Las carpetas: persecución política y derechos civiles en Puerto Rico*. Río Piedras, PR: Centro para la Investigación y Promoción de los Derechos Civiles, Inc.
- Cámara Fuertes, Luis R. 2004. The Phenomenon of Puerto Rican Voting. Gainesville: University Press of Florida.
- Carr, Jered B. and Antonio Tavares. 2014. City Size and Political Participation in Local Government: Reassessing the Contingent Effect of Residential Location Decisions within Urban Regions. *Urban Affairs Review* 50(2), 269–302.
- Castañer, Juan A. and Ángel Ruiz. 1997. The Importance of Trade to an Export-led Economy in the Present Context of Free Agreements in the Western Hemisphere: A Quantitative Analysis for the Puerto Rican Economy. Rio Piedras, PR: Unidad de Investigaciones Económicas, Departamento de Economías, Universidad de Puerto Rico de Río Piedas.
- Cho, Wendy K.T., James G. Gimpel and Joshua J. Dyck. 2006. Residential Concentration, Political Socialization, and Voter Turnout. *Journal of Politics* 68(1), 156–67.
- Cho, Wendy K.T. and Thomas J. Rudolph. 2008. Emanating Political Participation: Untangling the Spatial Structure Behind Participation. *British Journal of Political Science* 38, 273–89.
- Cortés Chico, Ricardo. 2016. Más incritos que electores. *El Nuevo Día* 25 September. Accessed 28 August 2017. <a href="https://www.elnuevodia.com/noticias/politica/nota/masincritosqueelectores-2244589/">https://www.elnuevodia.com/noticias/politica/nota/masincritosqueelectores-2244589/</a>>.
- Darmofal, David. 2006. The Political Geography of Macro-Level Turnout in American Political Development. Political Geography 25, 123–50.
- Dietz, James L. 1986. Economic History of Puerto Rico: Institutional Change and Capitalist Development. Princeton, NJ: Princeton University Press.
- Easton, David. 1975. A Re-Assessment of the Concept of Political Support. British Journal of Political Science 5(4), 435–57.
- El Nuevo Día. 2018a. La encuesta: Evaluación de líderes, agencias, utilidades, e instituciones por su labor luego del huracán María hasta hoy. 14 November, 9.
- El Nuevo Día. 2018b. La encuesta: Rosselló internalize resultados. 15 November, 4-5.
- Federal Reserve Bank of New York. 2014. An Update on the Competitiveness of Puerto Rico's Economy. New York: Federal Reserve Bank.
- Frandsen, Annie G. 2002. Size and Electoral Participation in Local Elections. *Environment and Planning C: Government and Policy* 20(6), 853–69.
- Geys, Benny. 2006. Explaining Voter Turnout: A Review of Aggregate-Level Research. Electoral Studies 25(4), 637–63.

- Gilley, Bruce. 2006. The Determinants of State Legitimacy: Results from 72 Countries. *International Political Science Review* 27(1), 47–71.
- Hirschman, Albert O. 1970. Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States. Cambridge, MA: Harvard University Press.
- Huckfeldt, R. Robert. 1979. Political Participation and the Neighborhood Social Context.

  \*American Journal Political Science 23(3), 579–92.
- Kohfeld, Carol W. and John Sprague. 2002. Race, Space, and Turnout. Political Geography 21(2), 175-93.
- Linz, Juan J. 1978. The Breakdown of Democratic Regimes: Crisis, Breakdown and Reequilibration. Baltimore: The Johns Hopkins University Press.
- López Alicea, Keila. 2016. Intriga el apoyo a la Junta de Control Fiscal. *El Nuevo Día* 19 August. Accessed 28 August 2017. <a href="https://www.elnuevodia.com/noticias/politica/nota/intrigaelapoyoalajuntadecontrolfiscal-2232357/">https://www.elnuevodia.com/noticias/politica/nota/intrigaelapoyoalajuntadecontrolfiscal-2232357/</a>.
- López Cabán, Cynthia. 2016. Desconfía los boricuas en sus instituciones *El Nuevo Día* 22 May. Accessed 28 August 2017. <a href="https://www.elnuevodia.com/noticias/politica/nota/desconfianlosboricuasensusinstituciones-2201574/">https://www.elnuevodia.com/noticias/politica/nota/desconfianlosboricuasensusinstituciones-2201574/</a>.
- Marxuach, Sergio M. 2015. Analysis of Puerto Rico's Current Economic and Fiscal Situation. San Juan, Puerto Rico: Center for A New Economy. October
- Oliver, J. Eric. 2000. City Size and Civic Involvement in Metropolitan America. *American Political Science Review* 94(2), 361–73.
- Pantojas-García, Emilio. 1990. Development Strategies as Ideology: Puerto Rico's Export-led Industrialization Experience. Boulder, CO: Lynne Reinner Publishers.
- President's Task Force on Puerto Rico's Status. 2005. Report by President's Task Force on Puerto Rico's Status. Washington, DC, December.
- \_\_\_\_\_\_. 2011. Report by the President's Task Force on Puerto Rico's Status. Washington, DC, March.
- Ramírez, Rafael. 1977. El arrabal y la política. Río Piedras: Editorial Universitaria, Universidad de Puerto Rico.
- Rivera, Ángel I., Ana I. Seijo and Jaime W. Colón. 1991. La cultura política y la estabilidad del sistema de partidos de Puerto Rico. *Caribbean Studies* 24(3-4), 175–220.
- Rosario, Frances. 2016. Baja la participación electoral de la Isla. *El Nuevo Día* 9 November. Accessed 28 August 2017. <a href="https://www.elnuevodia.com/noticias/politica/nota/bajalaparticipacion">https://www.elnuevodia.com/noticias/politica/nota/bajalaparticipacion</a> electoraldelaisla-2260595/>.
- Rosenstone, Steven J. and John H. Hansen. 1993. *Mobilization, Participation and Democracy in America*. New York: MacMillan Publishing Co.
- Ruiz Kuilan, Gloria. 2017. Hay controveria por la baja participación plebiscitaria en municipios PNP. *El Nuevo Día* 13 June. Accessed 28 August 2017. <a href="https://www.elnuevodia.com/noticias/politica/nota/controversiaporlabajaparticipacion">https://www.elnuevodia.com/noticias/politica/nota/controversiaporlabajaparticipacion plebiscitariaenmunicipiospnp-2330630/>.
- Tavares, Antonio F. and Jered B. Carr. 2013. So Close, Yet So Far Away? The Effects of City Size, Density and Growth on Local Civic Participation. *Journal of Urban Affairs* 35(3), 283–302.
- Thornburgh, Richard. 2001. Puerto Rican Separatism and United States Federalism. In *Foreign in a Domestic Sense: Puerto Rico, American Exceptionalism and the Constitution*, eds. Christina Duffy Burnett and Marshall Burke. 349–72, Durham, NC: Duke University Press.

- Trías Monges, José. 1997. Puerto Rico: The Trials of the Oldest Colony in the World. New Haven, CT: Yale University Press.
- Vargas-Ramos, Carlos. 2013. Puerto Ricans: Citizens and Migrants —A Cautionary Tale. *Identities: Global Studies in Culture and Power* 20(6), 665–88.
- \_\_\_\_\_\_. 2005. El género y la participación política en Puerto Rico. Caribbean Studies 33(1), 205-48.
- Verba, Sidney and Nie, Norman. 1972. Participation in America. Chicago: University of Chicago Press. Verba, Sidney, Schlozman, Kay L., and Brady, Henry E., 1995. Voice and Equality: Civic Voluntarism in American Politics. Cambridge, MA: Harvard University Press.

# **APPENDIX**

Table A1: Effect of population change on change in voter turnout and change in vote cast, 2012-2016 (unstandardized OLS regression coefficients; standard error in parenthesis)

	Percent change in voter turnout			change e cast
	Model 1	Model 2	Model 3	Model 4
Constant	059	064	033	041
	(.047)	(.046)	(.043)	(.043)
Population density 2016 (natural log)	.006	.007	.013**	.013**
	(.006)	(.006)	(.006)	(.006)
Total population 2016 (natural log)	025***	026***	019***	02***
	(.006)	(.006)	(.006)	(.006)
Population percent change, 2011-2016	.175* (.098)	-	.286*** (.09)	-
Change in percent employed in gov't, 2011-2016	.004	.001	.012	.008
	(.031)	(.031)	(.028)	(.028)
Change in labor force participation, 2011-2016	.01	.012	034	031
	(.035)	(.036)	(.033)	(0.33)
Change in median HH income, 2011-2016	034	03	077*	07*
	(.042)	(.042)	(.039)	(.039)
Change in percent home occupied by owner, 2011-2016	067	071	05	058
	(.053)	(.054)	(.049)	(.05)
Change in percent residing same home year before, 2011-2016	221	208*	243**	223**
	(.118)	(.118)	(.109)	(.109)
Change in Gini index, 2011-2016	.01	.009	054	055
	(.067)	(.067)	(.062)	(.062)
Four elections moving average (2000-2012)	.047	.028	.169**	.137*
	(.088)	(.088)	(.081)	(.081)
Change in pct of CVAP, 2000-2012	-	.134 (.081)	-	.231*** (.075)
R-square	0.293	.288	0.326	.321
Adjusted R-square	0.187***	0.181***	.225***	.22***
F-ratio	2.772	2.704	3.236	3.166
Degrees of freedom	77	77	77	77

<sup>\*=</sup>p<.1; \*\*=p<.05; \*\*\*=p<.01.

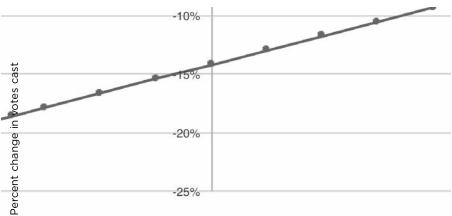


Figure A1. Effect of municipal population change on votes cast for governor, 2012-2016

Percent change in municipal population from 2011 to 2016.

Figure A2. Effect of percent change of citizen, voting age population on votes cast for governor, 2012-2016

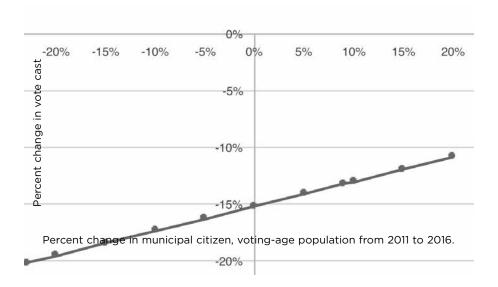


Table A2: Effect of population change on change in voter turnout and change in vote cast, 2012-2016 (unstandardized OLS regression coefficients; standard error in parenthesis)

	Percent change in voter turnout			change e cast
	Model 1	Model 2	Model 3	Model 4
Constant	094*	099**	047	054
	(.049)	(.049)	(.047)	(.046)
Population density 2016 (natural log)	.011*	.012*	.015**	.015**
	(.007)	(.007)	(.006)	(.006)
Total population 2016 (natural log)	026***	026***	019***	02***
	(.006)	(.006)	(.006)	(.006)
Population percent change, 2011-2016	.091 (.106)	-	.252** (.099)	-
Change in percent employed in gov't, 2011-2016	00001	002	.01	.007
	(.03)	(.03)	(.028)	(.028)
Change in labor force participation, 2011-2016	.006	.007	036	033
	(.035)	(.035)	(.033)	(0.33)
Change in median HH income, 2011-2016	04	038	079**	073*
	(.041)	(.041)	(.039)	(.039)
Change in percent home occupied by owner, 2011-2016	09*	091*	059	066
	(.054)	(.054)	(.051)	(.051)
Change in percent residing same home year before, 2011-2016	178	17	226**	208*
	(.118)	(.118)	(.111)	(.111)
Change in Gini index, 2011-2016	.018	.02	065	065
	(.067)	(.068)	(.064)	(.064)
Four elections moving average (2000-2012)	596*	618*	238	23
	(.311)	(.316)	(.293)	(.298)
Average rate of third party/independent candidates	034	045	.137	.109
	(.096)	(.094)	(.09)	(.089)
Change in pct of CVAP, 2011-2012	-	.057 (.089)	-	.203** (.084)
R-square	0.33	.327	0.332	.327
Adjusted R-square	.218***	.214***	.221***	.215***
F-ratio	2.953	2.909	2.986	2.914
Degrees of freedom	77	77	77	77

<sup>\*=</sup>p<.1; \*\*=p<.05; \*\*\*=p<.01.

Copyright of Centro Journal is the property of Centro de Estudios Puertorriquenos (Center for Puerto Rican Studies) and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.