

PUERTO RICO'S POPULATION
PADRONES, 1779–1802

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Abstract: The late eighteenth and early nineteenth centuries were a period of dramatic economic and population change for the Spanish Caribbean, including Puerto Rico. This note describes a unique collection of population data that sheds nuanced light on older research themes and promises to inspire new inquiries. These aggregate population data, or padrones, commissioned by the Spanish Crown and now more widely available and usable than ever before, offer details on Puerto Rico's sex, age, status, and socio-racial composition on an annual basis for the period spanning 1779 to 1802. We describe the data, their accompanying limitations, and their potential uses to advance scholarship on late-colonial Spanish America.

In the present note, we describe a set of population *padrones* from the late eighteenth and early nineteenth centuries for the Spanish Caribbean colony of Puerto Rico extant in the Archivo General de Indias (AGI) in Seville, Spain, that we have digitized and made available for public use in an unprecedented way. This rich collection of twenty-three yearly summary censuses covering the years 1779 to 1802 documents a period of steep growth in the island's population. It is part of a larger set consisting of as many as twenty-seven *padrones* commissioned by the governors and captains general with data most likely conveyed to central authorities by parish priests. This statistical effort followed in the wake of a 1776 Crown request for annual population figures on many Spanish American jurisdictions. Despite their limitations, the documents are a unique source, an annual statistical series of considerable value for understanding the social and demographic history of late-colonial Spanish America. The consistency and care with which government officials compiled them and shipped them to the metropole, despite disruptions in transatlantic navigation during the 1790s and early 1800s, underscores their special character and value. Scholars will welcome the fact that the *padrones* have been digitized and made available for public access as part of the collections housed in the University of Wisconsin's Data and Information Services Center (DISC) as well as the Inter-university Consortium for Political and Social Research (ICPSR), thus making them more widely available and usable.

In the following pages, we describe the collection and suggest some of the uses to which its rich data may be put. First, however, we place the padrones in the context of census data for Puerto Rico and other Caribbean colonies for the period between 1765 and 1815. As we will show, the twenty-seven annual censuses known to have been taken were part of a greater effort across the fifty-year period to statistically render Puerto Rico's population and economic activity in order to more efficiently carry out desired reforms. We then turn to the annual censuses for the years 1779–1802, a collection of twenty-three that we have digitized, corrected for arithmetic errors, aggregated into one file, and made available online.¹ In the final section, we suggest some of the scholarly uses of this remarkable series of data. Overall, the data elaborate on and give important nuance to major conclusions about this transition period in Puerto Rico's history.

CENSUS TAKING IN A STRATEGIC COLONY

For Spain's Caribbean possessions, the years between the end of the Seven Years' War (1756–1763) and the reestablishment of absolutism in Europe in 1815 marked a historic turning point. For generations after the Conquest, Spain's possessions in this region, with the notable exception of western Cuba, had remained economically marginal to its sprawling empire. In the late sixteenth century, a few possessions had been assigned the role of defensive bulwarks against Spain's European rivals, already plowing the Caribbean Sea, but in most of the militarized colonies, Spain's heavily fortified cities had been surrounded by thinly settled backlands of limited economic value to the metropole. Production, trade, and population languished in Hispaniola and Puerto Rico, even as Cuba experienced a measure of economic and demographic expansion. By the middle years of the eighteenth century, however, with the Caribbean region buoyed in general by rising export production in the non-Hispanic colonies and in selected Spanish locations like Caracas (cacao) and western Cuba (tobacco), the wheels of economic change had begun to turn. After the British occupation of Havana in 1762–1763, those wheels would spin even more swiftly throughout the region.

In the six decades before mainland Spanish America's conclusive independence in 1825, most of the territories in the Spanish Caribbean had become progressively integrated into circuits of Atlantic trade and navigation. Newly settled inhabitants, both free and slave, joined with the es-

1. The annual censuses are available at the Web site of the University of Wisconsin's Data and Information Services Center (DISC, <http://www.disc.wisc.edu>) and at the Web site of the University of Michigan's Inter-University Consortium for Political and Social Research (ICPSR, <http://www.icpsr.umich.edu>). The data and corresponding documentation are expected to be available through both sites in 2011.

tablished colonists to push the agricultural frontier into areas never before cultivated in the colonial period, and commerce with metropolitan ports and key European, North American, and West Indian trading cities grew. Commodity crops like sugarcane, cacao, coffee, indigo, cotton, and others proliferated across the fertile and often virgin soils of the large islands and the vast expanses of surrounding continental areas. The Spanish state contributed to this dynamism by investing huge sums to rebuild military fortresses in Havana, Cartagena, San Juan, and other cities believed to be crucial to the defense of the empire, and by loosening the mercantilist stranglehold of earlier times. Although in the short run these changes did not turn most Spanish colonies—as the Crown had hoped they would—into rich plantation colonies like those owned by the French and British in the Caribbean, they pointed the compass of Hispanic Caribbean development in the direction that enlightened Bourbon policy makers intently pursued. At the conclusion of the Spanish American independence wars, Cuba and Puerto Rico, the only remaining American colonies left to Spain, would reap the benefits of that transformation as they became, by the middle years of the nineteenth century, the Caribbean's most important sugar and tobacco producers, and among the most important coffee exporters.

For Puerto Rico specifically, the period spanning 1765 to 1815—during which the unique annual *padrones* fall—brackets a crucial juncture in its relationship with the Spanish imperial system. It was in those years that Bourbon reformers aggressively restructured the economic basis that had sustained the colony's small population through a long period (approximately 150 years) of relative isolation from the mainstream of empire (Scarano 2008). Taken together, the reforms recast the colonial bond (Fradera 1999; Scarano 1998). They helped dismantle an economy based on open-range grazing and disintegrate its supporting structures—a latifundary landholding system and pervasive contraband trade, among others—and their substitution by new practices based on agriculture and more conventional, and legal, ties to overseas markets (Gil-Bermejo García 1970; Fernández Méndez 1970; Morales Carrión 1952; Moscoso 1999a, 1999b). Agricultural and commercial expansion, an early sign of the new economic order's emergence, was conditioned primarily by external factors: the Bourbon trade reforms, for example, opened channels through which part of the island's production flowed to market in Europe, and Spain's decision to reinforce the military garrisons in San Juan supplied the capital needed for the Puerto Ricans' small but successful experiment with export production.² Internal conditions then reinforced the process.

2. Historians have stressed the importance of funds expended on military construction and defense for local capital accumulation. See, e.g., Marchena Fernández (1988, 59–95); Kueth (1986a, 123–138); and Johnson (1997). For Puerto Rico, see Martín Reboló (1986).

The introduction of coffee in the 1730s, its favorable adaptation to local conditions, and the reputation for quality that the Puerto Rican product gained raised returns from crop production far above those from cattle grazing while demonstrating the viability of a more intensive exploitation of land and labor in agriculture. Coffee also stimulated the colonization of the island's hilly interior, an area suitable for its cultivation that was once marginal to the cattle economy.³ By the mid-1810s the transition from a predominantly pastoral economy to a mixed one that combined a growing export business with the more traditional cattle raising and peasant activities was virtually complete. Relative to the 1770s, per capita production in agriculture had jumped, and a significantly greater portion of the island's output was commercialized, whereas livestock raising and subsistence food production had undergone a measurable decline (Abbad y Lasierra 1970; Ayuntamiento de San Juan 1970; Gil-Bermejo García 1970; O'Reilly 1854; see also Scarano 1984).

Such changes inevitably had a profound impact on the size, structure, and movement of Puerto Rico's population. Figure 1 illustrates the magnitude of growth during the period relative to that of the other two main Caribbean islands, Cuba and Santo Domingo, for the total population and separately for the free and slave populations. Puerto Rico's population was notably smaller than Cuba's, but the dramatic rate of growth is comparable between the two islands.

Indeed, during the second half of the eighteenth century, the population grew more quickly than in any other period in island history. At the same time, its racial composition was noticeably altered as a result of augmented slave importations and, most likely, a high frequency of manumission and self-purchase through the legal device of *coartación* (Kinsbruner 1996; Vázquez Calzada 1988). The interplay among fertility, mortality, and migration, and its effects on population growth, also underwent important shifts. The combination of very high fertility, relatively low mortality, and a short-lived but intense immigration rate before 1800 produced fast overall growth (a 3.5 percent cumulative annual growth rate between 1765 and 1800; Scarano and Curtis, 2011). Thereafter, the rate of increase appears to have slowed possibly because of decelerated natural reproduction and—contrary to common belief—a reduction in immigration (Cifre de Loubriel 1964; Chinaea 1996; Passalacqua 1987; Scarano and Curtis, 2011).

That the colonial state saw fit to keep track of the transformations to which these changes bore witness is not surprising. The historian John L.

3. The importance colonial officials placed on coffee can be gleaned from a 1770 report by governor Miguel de Mueas to his superiors in Spain, in which he reported measures taken to direct the flow of island coffee through legal channels. Miguel de Mueas to Julián de Arriaga, May 13, 1770, Archivo General de Indias (hereafter, AGI), Santo Domingo, 2300.

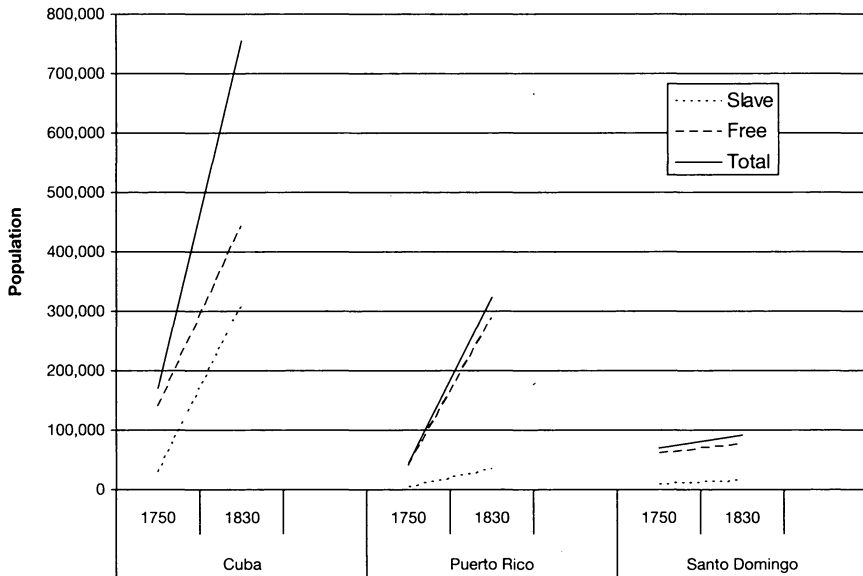


Figure 1 Total, Free and Slave population of Cuba, Puerto Rico, and Santo Domingo, 1750 and 1830

Source: Engerman 2000.

Lombardi (1981, 12) has noted that the “pragmatic and rationalist” Spanish colonial administration required an extensive and accurate population reporting system, one that could be trusted to reveal, on short notice, “what population aggregates could be deployed at various tasks throughout the empire.” Resources available for defensive mobilization were among the most important of these aggregates and thus some of the best reported. In the eighteenth-century Caribbean, the Crown assumed that a revamped system of colonial militias would provide the defensive power that the thinly stretched regular army could not (Kuethe 1986b; Ortiz 1983). The number of men ready for militia service was a key consideration when taking stock of valuable resources.

Along with the population of other Caribbean colonies, therefore, it was important to the Crown to understand the size and composition of Puerto Rico’s population. In the late 1700s, colonial administrators considered it a primary obligation to collect population statistics and to keep the data reasonably updated given the colony’s heightened value as a military outpost. For that reason, Puerto Rico’s late-eighteenth-century padrones (here used interchangeably with the word *censuses*), or aggregate population tallies, are among the most complete sets of population statistics ever discovered for the colonial empire (for a relevant discussion, see Cook and

Borah 1971–1973; for examples of work on the Aranda census in Spain, see Herr 1958; Konetzke and Kellenbenz 1977).

THE ANNUAL SERIES: 1777–1803

Beginning with a census taken in 1765 during Alejandro O'Reilly's *visita*, a high-level fact-finding mission prompted by Spanish fears of another Havana-style takeover, and ending with the compilation ordered by the intendant Alejandro Ramírez (1814–1815/1972) in 1815, a total of thirty-five padrones of population and resources are believed to have been compiled in a period of a half century.⁴ These documents are readily accessible, whereas others may yet be found in archives. Some of the available documents have been published, and most others are in the thoroughly researched collections of the Archivo General de Indias in Seville (see table 1). Yet except for occasional references to population totals or the publication of census photographs as illustrations, demographic historians have not paid them the attention they deserve.⁵

As with any other data from the protostatistical era, practical considerations suggest caution in the use of these data. For one, it is often difficult to ascertain how or by whom the data were collected or what safeguards, if any, were used. But it is likely that historians' usual wariness of numbers, not methodological challenges posed by the censuses themselves, accounts for their neglect as rich sources for the demographic and social history of the colony. Even scholars of the so-called new history generation, who in the 1970s and 1980s revisited Puerto Rico's agrarian past and applied to it the tools of race, class, and gender analysis, did not use the padrones to any significant degree, instead preferring to exploit the rich data from parish registers instead, though for only relatively short periods and local circumstances (Rodríguez León 1990). Researchers seeking to understand social structure and social change in the 1765–1815 period would be ill advised to ignore the insights gleaned from the padrones, however. The aggregate data are of considerable value to historical demographic and social analysis, and an excellent comple-

4. In the 1770s, the Spanish Bourbons introduced *intendentes*, or intendants, officials who consolidated managerial and fiscal functions.

5. Both Pedro Tomás de Córdova (1831–1833) and José Julián Acosta (1866), two important nineteenth-century authors, detailed population totals for the late eighteenth and early nineteenth centuries, especially those of 1778–1803. A contemporary of Acosta, J. Jimeno Agius (1918), also engaged in a short study of population trends suggested by the earliest available data (i.e., the padrones of the second half of the eighteenth century). An example of the use of the censuses for illustration purposes is found in Torres Ramírez (1968). Population totals from the censuses, both for the island and for individual *partidos*, have shored up social histories of the period (e.g., González Mendoza 1989), studies of urbanization processes (e.g., Escabí 1985), and important general histories (e.g., Picó 1986).

Table 1. *Puerto Rican Padrones by Year and Source, 1779–1802*

Census year	Sources
1779	AGI Santo Domingo 2302
1780	AGI Indiferente General 1527
1781	Ibid.
1782	AGI Santo Domingo 2302
1783	Ibid.
1784	Ibid.
1785	Ibid.
1786	AGI Santo Domingo 2483
1787	AGI Indiferente General 1527
1788	AGI Santo Domingo 2309
1789	Ibid.
1790	Ibid.
1791	Ibid.
1792	AGI Santo Domingo 2288
1793	AGI Santo Domingo 2309
1794	AGI Santo Domingo 2313
1795	AGI Santo Domingo 2315
1797	AGI Santo Domingo 2288
1798	AGI Santo Domingo 2318
1799	AGI Santo Domingo 2288
1800	Ibid.
1801	Ibid.
1802	Ibid.

Note: The 1791 padron was erroneously dated “1792.” The 1779 census makes reference to “the general total of souls for last year,” which indicates that a census was taken in 1778.

ment to traditional (i.e., qualitative) historical sources and other forms of demographic microdata (Willigan and Lynch 1982; Trejo Barajas 2005, 762n5).

Taken as a whole, the annual set of padrones we describe here is the most useful source of census information for the study of eighteenth- and early-nineteenth-century Puerto Rican population movements. It is a collection that for its scope and continuity may well be unique among serial sources of Spanish American colonial history. The padrones were borne of a 1776 royal order requesting viceroys and executives of *capitanías generales* and *gobernaciones*, such as Puerto Rico, to prepare reports on population, broken down by social status, race, marital status, and sex (Brau 1974; Cook and Borah 1971–1973; Konetzke 1989). The reports were to be forwarded annually to Spain, but seemingly few, if any, other jurisdictions besides Puerto Rico complied fully. Between 1777 and 1803, the island’s officials compiled a full series of annual padrones composed of data from

each *partido*, or district, of which we have located twenty-three covering the years 1779–1795 and 1797–1802, all inclusive (i.e., we are only missing 1777, 1778, 1796, and 1803).

Several features of the data are worthy of mention. First, in all the censuses, the object was the civil population, that is, the total population less the regular army troops.⁶ Second, the reports were based on an age-sex-race principle like earlier censuses (i.e., O'Reilly's 1765 census [1970]), and they introduced a different classification that allows for closer study of racial composition. The series distinguished whites, Indians, free mulattoes, free blacks, mulatto slaves, and black slaves.⁷ This arrangement permits the analysis of individual groups or of any relevant combination of them to make the data compatible with other censuses. To demonstrate, we report in table 2 the annual growth rates for 1780 to 1800 of the island's population by socio-racial group. From this table, evidence of variation in growth between the socio-racial groups is gleaned and can inform, for example, research on the relationship between types of economic expansion and differences in patterns of population growth.

The data are not without limitations. First, in the annual censuses of the 1779–1802 period, each group was broken down only by sex and by an ambiguous age criterion; although nowhere made explicit in the reports, we have interpreted the age groups as the difference between dependent (or minor) status and *mayoría de edad* (adulthood or full age, which in the Spanish American context was twenty-five years of age). For each group, then, there were four subdivisions: adult males and females, and young males and females.

6. Militiamen were also counted given the military focus of the island. On the concept of a civil population, see Hollingsworth (1969, 14).

7. Brau (1974, 173) refers to the Indian community of late-eighteenth-century Puerto Rico as follows: "Esos indios, cuya existencia se había comprobado oficialmente, no eran los procedentes de cruzamientos y que existían confundidos en la clasificación de pardos libres, sino tipos de raza pura, descendientes de aquellos que emancipados por Carlos V, procuraron alejarse de sus opresores. Instalados todavía en 1570, en terrenos próximos al San Germán de Guadianilla, de allí se remontaron a lo más agrio de la sierra, en sitio que por tal vecindario, se llamaba La Indiera." (Those Indians, whose existence the authorities had confirmed, were not the offspring of mixed unions classified as free coloreds but racially pure types, descended from those who, after Charles V emancipated them, tried to flee from their oppressors. As of 1570 they lived next to San Germán de Guadianilla, and from there they moved to the most inaccessible part of the mountain range, to a place that, thanks to that very settlement, became known as Indian Land.) Brau's observation about the persistence in eighteenth-century Puerto Rico of an Indian community descended from the contact-era Tainos is relevant to contemporary debates about the extent of that population's survival. Recently, attempts to measure the Indian genetic legacy through analyses of DNA have been controversial. For results of a mitochondrial DNA analysis of a sample of Puerto Rican women, see, e.g., Martínez Cruzado et al. (2005). For the parallel case of Hispaniola, the current consensus among historians and historical demographers, see Livi-Bacci's (2003) summary.

Table 2 Annual Growth Rates in Percentage Increase per Annum by Socio-Racial Groups, 1779–1802

Intercensal period	White	Indian	Free mulatto	Free black	Slave mulatto	Slave black
1780–1785	4.28	1.96	3.89	2.79	8.14	2.47
1785–1790	2.17	1.89	1.75	5.72	4.01	6.88
1790–1795	4.63	4.82	2.03	3.12	5.10	7.56
1795–1800	3.18	3.03	3.68	5.90	3.65	3.99
1780–1800	3.56	2.92	2.84	4.38	5.22	5.22

Note: AGR was derived by $(((Pt + 1 - Pt)/Pt) \times 100)/N$.

Second, we have not found the guidelines that authorities in San Juan sent to the parish priests who collected the information and wrote the census reports. Yet the evidence suggests the existence of detailed and precise instructions and strict, almost mechanical adherence to them by the priests (Jiménez Pérez 1774/1920). In addition to the use of one standard socio-racial classification through the period, the following consistencies stand out: (1) report titles and format, and even footnotes mentioning the exclusion of army troops and summarizing the previous year's total count, remained constant throughout; and (2) the gathering of local data into one comprehensive document was done in most cases in June of the following year, and in all cases during the summer months. In light of these consistencies and of the fact that censuses' reliability is partly a function of the frequency of their collection, we believe that the annual padrones are as dependable as any of the population summaries that exist for eighteenth-century Spanish America (for extensive discussion of prestatistical population counts, see Hollingsworth 1969; for discussions on historical population sources in Latin America, see also Browning and Robinson 1976; Robinson 1981; Sánchez-Albornoz 1974).

Finally, the original padrones contain some arithmetic errors. For example, marginal totals were not always accurate. In such instances, we determined the source of the error by comparing column (socio-racial group) and row (partido) totals; for example, if a column was inaccurate, we isolated the erroneous cell by checking each row total to confirm that the error was in the summation. In addition, some of the documents are difficult to read; thus, another source of error is cell value. Fortunately, such instances were few, and we were able to examine the document in multiple formats (electronic and hard copy) and cross-validate them with column and row totals. In the end, we are confident that the values reported in the electronic data file accurately reflect the reported cell values, although column and row totals might vary from erroneously summed values in the original documents.

USING THE ANNUAL SERIES TO ANALYZE POPULATION AND ITS CORRELATES

Researchers can use these unique and rich data to reveal the basic contours of Puerto Rico's demographic and social evolution during this period of considerable expansion by disaggregating the components of population growth and, further, relating the components to other aspects of social life. For example, even though place of origin is not reported, patterns in immigration can be inferred from calculations of group-specific growth rates, as table 2 shows. Because the padrones for the years 1779 to 1802 break down the population into identical socio-racial groups, it is a relatively straightforward task to calculate differential group dynamics.

The data, in turn, enable us to gain further insight into the changing meanings and implications of racial constructs and policies aimed to exclude and/or control particular ethnic or racial groups. Researchers are able to use the data to trace fluctuations in socio-racial categories; and from the fluctuations, they can infer the extent of manumission and the ebb and flow of race as an important social cleavage. For example, the Indian population of San Germán had been subsumed by other socio-racial categories by 1815. The Indian population was not genetically extinct; rather, indigeneity no longer served as a socially relevant distinction.⁸ As a further illustration, preliminary explorations of the data reveal notable increases among the free black category between 1780 and 1800, owing to the movement from the slave category (Scarano and Curtis, 2011). In addition to being broken down by socio-racial categories, the padrones are divided according to sex and age for each partido. Sex ratios can be derived from the data, thus providing researchers with insight into the pattern of settlement in Puerto Rico, as areas with disproportionate numbers of males can be interpreted as frontier areas. However, researchers using sex ratios as indices of migration or other movements should exercise special caution because there is a tendency to undercount men in population tallies intended primarily for military prescription.

Moreover, the data can be used in conjunction with other sources to draw comparisons with other periods and associations with related social processes. For example, the data can be combined with population censuses from earlier or later periods to capture broader population trends. Similarly, research might join data on other factors, such as economic production, to explore relationships between population and economic growth dynamics. Indeed, explorations of these data together with data from 1765 and 1815 reveal important sex-ratio imbalances among the slave population in years corresponding with a highly active slave trade, which accompanied expanding sugar production (Scarano and Curtis, 2011).

8. On the genetic survival of Tainos and other Indian groups among latter-day Puerto Ricans, see Martínez Cruzado et al. (2005).

These are just a few examples of the numerous uses of the padrones to researchers across multiple disciplines. Scholars interested in the Spanish Caribbean will doubtless submit the Puerto Rican data to additional creative and illuminating uses. We have made the figures and corresponding documentation (including images of the original padrones and a complete code-book that includes variable descriptions and summary statistics) electronically and freely available through the University of Wisconsin's DISC and through ICPSR. In doing so, we expect that the data will provide scholars with a unique source for pursuing meaningful research on Puerto Rico and the Spanish Caribbean during its pivotal transition from imperial backwater in the eighteenth century to a first-order source of plantation commodities integrally bound to circuits of world exchange in the nineteenth century. This transition carried with it profound shifts in the internal organization of Spain's colonies. For anyone interested in the groups most affected by these shifts—enslaved Africans and other coerced laborers, of course, but also immigrant groups experiencing unprecedented growth in their ranks—a source that, like the padrones, enables a better grasp of the dynamics of population change is a welcome addition to the scholar's toolbox.

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