

# 5 Population censuses in crisis

## United States, Brazil, and Ecuador in comparative perspective

*Byron Villacís*<sup>1</sup>

### 5.1 Introduction

Population censuses are technologies of governance that help to coordinate social activities and guide public actions (Desrosières, 2012, p. 41). They usually are interpreted as objective devices that produce comprehensive statistics under the veil of scientificity (Porter, 1996, pp. 33–35, 41–43). However, their process of production evolves in interaction within and between diverse political contingencies framed in procedures, usually closed to external interpretations (Prévost, 2019; Rottenburg, Merry, Park, & Mugler, 2015, p. 8). While there is substantial literature studying these contingencies in a historical sense for specific countries (Anderson, 1988; Gill, 2007; Loveman, 2009; Prewitt, 2010a; West & Fein, 1990) there are fewer analyses trying to understand the contingencies in a comparative way, and particularly, studying the tensions between social agents that influence directly and indirectly the operation (Baffour, King, & Valente, 2013; Emigh, Riley, & Ahmed, 2016). The 2020 census round represented an invaluable opportunity to fill this void: The United States (US), Brazil and Ecuador faced the arrival of the COVID-19 pandemic and, at the same time, their agencies in charge of the census suffered political interventions from their respective central governments. This chapter deploys a description and analysis of how internal and external political and social forces affected and reacted to the supposed balanced statistical operation, and how the interventions impacted dissimilar infrastructures.

The investigation is based on archival research and in-depth interviews. In the first stage, methodological archives, public announcements, and media reports were collected, coded, and analyzed. This procedure was complemented by 15 in-depth interviews with key census administrators, national and international experts, and local academics observing the operations in the selected countries. Together, it allowed the reconstruction of historical contexts, statistical institutional frameworks, and details about the processes of crises and intervention. I paid particular attention to the identification of key actors, mechanisms of intervention, and outcomes affecting the census.

Three points are salient across the analysis. First, all three cases experienced political interventions tied to changes in political power at the national level. This was true in mature and stable statistical systems, such as the case of the US, but

also in the cases of Brazil and Ecuador, countries with dissimilar weaknesses in their statistical systems in terms of autonomy, professionalization, and stability. Second, the capacity to react against interventions depends on two factors. On the one hand, groups interested in the census' outcome need previously constituted social spaces to make visible the demands and to organize reactions. These spaces can be workers' unions, associations of ethnic minorities, observatories of public statistics, or groups of study within academic circles. Brazil and the US have a long tradition of civil society organizations that entered into action during the 2020 census crisis; however, in the case of Ecuador, there were fewer spaces able to embrace concerns. On the other hand, these demands take the form of political struggles only if there is a juridical system able to materialize complaints. Through a functional and prompt legal reaction, the US census avoided interventions from the federal government in the form of attempts to include of a question with political intentionality. In the cases of Brazil and Ecuador, the absence of a juridical power capable of legitimize a space for struggle provoked that, either noisy (Brazil) or discrete (Ecuador) complaints, never took the form of concrete legal reactions. Third, the COVID-19 pandemic played a justificatory transversal role: in the case of the US, it served as an excuse to the government for political intervention, in the case of Brazil functioned as a justification to find a temporal agreement between the conflicting parts; and in the case of Ecuador, it was used as a pretext to delay the operative and to justify internal organizational mistakes present before the arrival of the pandemic.

Together, the chapter vindicates the need to understand the contexts where censuses are produced before attempts to analyze its statistical outcomes. The naïve exploitation of their data or – even worse – the merge between several censuses to then compare results without this consideration, leads to implicit assumptions that are far from realistic. Censuses are artifacts of the societal and institutional context in which they are collected, thus, their statistical exploitation and technical investigation require a broader panorama of reasoning and action. Additionally, the chapter argues in favor of the need for comparative analysis not only at a statistical level but also at an operative one. Only then is possible to make visible social forces interacting with the census from inside and outside its organization. This perspective is essential to understand the impacts of the quantitative outcomes of the census, usually couched in a language of objectivity (Emigh, Riley, & Ahmed, 2020, p. 290).

The rest of the chapter is divided into five sections. In the next two, I describe the conceptual framework and methodology. In the subsequent section, I explain the results from the analyzed cases: US, Brazil, and Ecuador. Then, I proceed with a comparison, to finalize with a discussion.

## **5.2 Conceptual framework**

From a disciplinary perspective, the study of population censuses traditionally has taken four paths. Demographers and statisticians usually pay attention to the outcomes of the operation itself, either producing fertility, mortality, or migration

commensurations (Condran, 1984; Eriksson, Niemesh, & Thomasson, 2018; Jaadla, Reid, Garrett, Schürer, & Day, 2020; Retherford, Cho, & Kim, 1984), creating geographic profiles and historical evolutions (Hirschman, Alba, & Farley, 2000; Ruggles & Magnuson, 2020) or using its results as inputs for frequentist or Bayesian modeling (Vanella, Deschermeier, & Wilke, 2020; Voutilainen, Helske, & Högmänder, 2020). Most societies know the census thanks to this knowledge production, which usually is inserted afterwards into systems of governance (Murray, 1992). A smaller but significant number of demographers diagnose quality characteristics and operational technicalities such as coverage, costs, inaccuracies, respondent errors, and age heaping, among others (United Nations, 2008). These analyses usually take the form of evaluations where the intention is to identify operative gaps (Brown 1998; Hogan, Cantwell, Devine, Mule, & Velkoff, 2013).

In the realm of economics, the census has been the target of analysis searching for associations and causalities between the evolution of population and its components with economic growth (Howitt, 1999), business cycles (Losch, 1937; Simon, 2019), development (Coale & Hoover, 2015), labor (Durand, 2015), or aging (Maestas, Mullen, & Powell, 2016). When economists look at the census as an administrative operation, usually they apply a cost-benefit analysis (Roseth, Reyes, & Yee Amézaga, 2019; Spencer, May, Kenyon, & Seeskin, 2017). A third and popular approach comes from political scientists who usually study representation and apportionment (Kaiser, 1968; Kastellec, Lax, Malecki, & Phillips, 2015), quality of vote tallies (Challú, Seira, & Simpser, 2020), the independence of census offices (Prévost, 2019; Prewitt, 2003, 2010a), and privacy policies (Singer, Van Hoewyk, & Neugebauer, 2003).

Sociologists usually pay attention to the role they play in relation to social forces (Alonso & Starr, 1989; Saetnan, Lomell, & Hammer, 2012), the construction of ethnic categories (Loveman, 2014; Mora, 2014), methodological designs and implications (Sullivan, 2020), the way they serve to discipline societies (Schweber, 2006), institutional changes (Ruggles & Magnuson, 2020), its relation with state formation (Anderson, 1983; Curtis, 2001; Loveman, 2005), the constitution of conventions and consent (Boltanski & Thévenot, 2006; Desrosières, 1998, 2011; Porter, 2011; Rodríguez-Muñiz, 2017), and historicizations (Anderson, 1988). In the vision of sociologists and political scientists, censuses are not only interpreted solely as technical artifacts. They are understood as political gears that play a role in the political strategies of social actors (Bourdieu, 2014, p. 142). These contingencies imply that the analysis of a census is incomplete if we do not problematize the broader political economy in which they are undertaken: the incidents inside and outside the state during the execution, the social conditions surrounding it, the actors involved, the implications of how governments interpret its functions (Desrosières, 2012, p. 53; Kukutai, Thompson, & McMillan, 2015) and the conditions of institutionalization (Loveman, 2014).

Taking these elements as a reference, this chapter embraces the arguments from the sociology of statistics (Desrosières, 2012; Porter, 1996; Starr, 1987), deploying two types of conceptual and analytical tools. First, it complements analyses that usually retain a strong and implicit state-centered bias because they see the census as a

state-centered process implying a top-down exercise of state formation and control (Emigh, Riley, & Ahmed, 2015, p. 486). Instead, it embraces the notion that the census is a complex progression that finishes producing statistical outcomes through interactions between and within social forces that shape the census and, at the same time, shape the society (Baffour et al., 2013; Emigh et al., 2015; Saetnan et al., 2012, p. 13). However, complementing these critical positions, it problematizes the role of censuses not only as the tension generated by the construction of particular categories, for example, race (Mora, 2014). Instead, pays attention to the tensions inside and outside the organization in charge of the census to understand how social forces influence administrative and organizational processes. Second, and to achieve the objective mentioned in the previous point, it uses the framework to understand how the demands of census users are affected by internal and external operative procedures that usually are neither visible nor problematized. These contingencies happen in the middle of a progression of activities where governments attempt to gain partisan advantage by shaping the statistical production against the judgment of the statistical agency (Prewitt, 2010, p. 228). Therefore, the aim is to identify and interpret the interferences through two dimensions: the mapping of social agents inside and outside the state, and through a systematic comparison across countries, the identification of mechanisms of intervention and the effects of the operation.

### 5.3 Research design

The chapter is supported by document analysis and in-depth interviews. In the first case, I collected methodological and public documentation in relation to the 2020 census round from US, Brazil, and Ecuador. This includes institutional reports from the respective offices in charge of the census (Census Bureau [CB] for the US, the *Instituto Brasileiro de Geografia e Estatística* [IBGE] for Brazil, and the *Instituto Nacional de Estadística y Censos* [INEC] for Ecuador). I also collected national and international reports from organisms with the function of supporting census programs, such as the United Nations,<sup>2</sup> the World Bank (WB), and the Inter-American Development Bank (IADB). These reports are complemented by analysis and investigations from academic circles under the epistemological communities described in the previous section.

Public documentation helped to understand formal and official positions regarding the census; however, analysis of this kind is limited at the moment of identifying political actors, contingencies, positions, and points of conflict inside and outside the state. This gap was covered through two sources: the collection of media reports, analysis, public opinion, and specialized news reports.<sup>3</sup> After this initial collection key actors and institutions that played a role in methodological discussions were identified. This included pundits, representatives of organizations, and academics. I carried out 15 in-depth interviews<sup>4</sup> divided into two stages. In the first one, an exploratory interview was developed to identify (1) points of conflict between the official execution of the census and external positions usually materialized in attempts of intervention from the central government, (2) strengths and weaknesses of the operation, and (3) agents that have interest in the execution

of the process. This initial step mapped the actors with interests and their possible agreements or conflicts. The second stage of interviews was focused on conclusive arguments about the position of each identified actor, the role of the institution in charge, mechanisms, and interpretations regarding their respective crisis, and reactions from the actors in the field. Together, the interviews and media reports helped to understand the external narratives that are less controlled by the state, the relation between and within actors in society, and the way those relations influenced the census operation.

US, Brazil, and Ecuador were included as case studies because they share three essential characteristics: (1) their censuses were affected, although at different levels, by the common crisis of the pandemic COVID-19, either by delaying or canceling their operations, (2) their censuses were affected by significant attempts of political intervention from their respective governments, and (3) their governments share ideological conservative positions: Donald Trump from the Republican Party in the US, Jair Bolsonaro from the extreme right conservative political field in Brazil, and Lenin Moreno from conservative alliances in the right in Ecuador.<sup>5</sup> This last commonality helps to signal the limitation of the chapter: the interventions and crises in censuses happened in diverse political settings and under a variety of governmental contexts (Prewitt, 2010b). The findings deployed here need to be read to understand that, while the comparison among right-wing governments helps to weigh crises under similar political administrations, the mechanisms can differ under dissimilar settings. This diversity in the typology of selected cases provides the ground for a reflexive, non-essentialist engagement with global and historical diversity, which at the same time, is capable of uncovering patterns in the production of statistical systems that emerge when contrasting variously positioned systems of relational political practices within the global power structures (Fourcade, Lande, & Schofer, 2016, p. 16).

#### **5.4 A polemic question testing the juridical system: the case of the US**

The history of federal censuses in the US goes back to 1790. The first census was taken under the supervision of Thomas Jefferson. The questionnaire included six questions: name, relation with the head of the family, age, condition of freedom or slavery, sex, and race (US Census Bureau, 2019). Until 1870, District Marshals were responsible for data collection, then, the need for standardization and the incremental complexity of operations opened a period of institutionalization of the statistical system. The CB was created in 1902, as part of the Department of Interior, and one year later, it shifted to become part of the Department of Commerce and Labor (Census Bureau, 2005). The last legal reform happened in 2012 when President Obama enacted the Presidential Appointment Efficiency and Streamlining Act. This reform, among other things, set the term of the CB Director at five years, with a maximum of two periods. Additionally, the position requires demonstrated ability in managing large organizations, and experience in the collection, analysis, and use of statistical data (GOVTRACK, 2012). The CB Director must be appointed by the President and confirmed by the Senate.

The planning of the 2020 census started in 2016 under the direction of John H. Thompson, a tenured functionary since 1975. He was supposed to be in charge of the entire operation; however, he resigned in May 2017 (Sweetland, 2017). Analysts and specialists argued that the main reason for the abrupt exit was the announcement of budgetary cuts (Bromwich, 2017; Marshall, 2017). This was the result of political pressures from the Republican party who usually claim excessive budgets and invasion of privacy in the census (Weyl, 2012). Ron S. Jarmin, another CB career functionary, replaced Thompson for one year and a half. In January 2019, by the nomination of President Trump, Steven Dillingham arrived at the CB direction. Due to his extensive public career at the federal level, Dillingham received support from academic organizations, experts in the field, and the Republican and Democratic parties (Mervis, 2018). His arrival calmed the waters respecting the upcoming census; however, concerns would soon come from another front.

By legal requirement, the CB must submit the list of proposed questions to Congress. The first official release was in March 2018, including seven questions.<sup>6</sup> Despite this initial formality, the Secretary of Commerce Wilbur Ross<sup>7</sup> promoted an extra one: “Is this person a citizen of the United States?” He argued that the inclusion of this question was a requirement to put into effect the Voting Rights Act, as solicitude of the Department of Justice (NPR, 2018a). However, Democrat representatives, who at the time had recently regained control of the House, demonstrated that it was a White House initiative and thus, a politically motivated operation (Wire, 2019). Additionally, President Trump intensively promoted the inclusion of the question through public declarations arguing the need for improved district excluding non-citizens (Baumgaertner, 2018). The reaction from state and civil society organizations was immediate and methodical, arguing that the proposal was attempting to discourage the participation of immigrants in the census, which will result in undercounting and reducing political spaces for Democrats and racial minorities (Lo Wang, 2018a).

The reaction from social forces was diverse, firm, and rapid. Complaints and concerns appeared from at least 131 groups, including ethnic associations (Muslim Advocates, Asian American Associations, and Latino Groups), Unions and Conferences (Conference on Civil and Human Rights and the American Civil Liberties Union), and academic organizations (ASA, 2018; Gamboa, 2018; LCCHR, 2018). Protests were based on technical reports from the very CB (Census Bureau, 2019), and even Ron S. Jarmin, the CB Director who lasted only a year and a half in office, expressed public concerns (Lo Wang, 2018c). Soon, the conflict arrived in the juridical field: at least three federal lawsuits emerged from the states of California, New York, and Maryland (de Vogue & Hartfield, 2019). In a matter of weeks, what started with a political intention to intervene in the census, promptly installed a legal battle at a federal level.

The conflict faced two points of interest: at the core, the discussion was the inclusion of the question; at the border, the timing of the juridical resolution. The latter was converted into a government tactic to delay the juridical result and tacitly permit the inclusion of the question in the census. On the other hand, the plaintiffs were looking for urgent determinations; not only to avoid the inclusion of

the question, but also to leave the census calendar unaffected. A big portion of the trial was spent retracing the origin of the citizenship question: Secretary Ross argued that it was the result of a deep and conscious process considering all legal procedures. Democrats and plaintiffs argued that the inclusion was political and influenced by actors like Steve Bannon, an ultra-conservative strategist (Cornwell, 2018). The procedure allowed to have access to personal communications between the parties; which revealed, five key facts: (1) One of the main tasks delegated from President Trump to Ross as Secretary of Commerce was to include the question in the census (Lo Wang, 2018b), (2) former CB Director Ron S. Jarmin and CB technicians formally disagreed with the inclusion of the question. Six months after Jarmin's disagreement, he was replaced by Steven Dillingham (Elliott, 2017; Lo Wang, 2017; NPR, 2018a, 2018b), (3) there were communications between Steve Bannon and Secretary Ross with the sole intention of the inclusion of the question (Lo Wang, 2017), (4) Thomas B. Hofeller, a strategist known for gerrymandering electoral districts, wrote a report justifying the inclusion because it would be advantageous for Republicans and non-white Hispanics (Wines, 2019), and (5) new appointed CB Director Dillingham preferred to have an unvoiced position during the conflict (Lo Wang, 2019b). Even a year later, he avoided taking a position, generating energetic criticisms and concerns in the Congress (Mervis, 2020).<sup>8</sup> This documentation confirmed the politically motivated inclusion of the question and revealed key actors involved in the intervention.

Just a few months before the census, in January 2019, Jesse M. Furman, District Judge, Court for the Southern District of New York, blocked the inclusion of the question claiming that Secretary Ross's decision violated the Administrative Procedure Act (Lo Wang, 2019a). However, Furman also rejected the plaintiffs' claim that adding the question violated the Enumeration Clause of the US Constitution (Wines & Benner, 2019). The Supreme Court agreed and confirmed Furman's position, and the Trump administration decided, on July 2019, to withdraw the question (Lo Wang, 2019c). The census continued its march without the polemic question, nevertheless, analysts and activists consider that the damage was already done, particularly affecting the quality and representativeness of the census (Williams, 2019).<sup>9</sup> On the other hand, the Trump administration continued its efforts to obtain citizenship data through administrative records outside the census (Mangan & Breuninger, 2019). Later, the COVID-19 pandemic arrived, affecting the schedule of operations, including the decision to finish operations one month earlier than planned. According to some analysts, this meant that immigrants and minority communities were not sufficiently included in the census (Wines, 2020). Finally, a big portion of the tensions was liberated after the departure of Trump from power: in the first day of office, President Joe Biden decided to stop the intention of counting undocumented immigrants and immediately the CB announced a more relaxed calendar of production of indicators (Lo Wang, 2021). The case of the US exemplifies (1) how an intervention from the central government involved mostly political actors outside the arena of a professionalized CB, and (2) how the reaction from social actors achieved political and judicial attention at a national level. The following case will show what happens when, in a similar intervention, the role of the judicial system is absent.

### 5.5 Austerity as the face of intervention: the Brazilian Case

Brazil has executed population censuses since 1872. Nevertheless, the formal institutionalization of the agency in charge arrived in 1936 with the creation of IBGE. The institute is recognized nationally and internationally for its significant level of autonomy and isolation from political conjuncture.<sup>10</sup> Until 2020, Brazil executed 12 population censuses, one of the longest experiences in the region (Dargent et al., 2018; Villacis & Thome, 2020). Over time, the institution gained prestige due to methodological improvements, technological advances, and partnerships with international statistical offices (IBGE, 2020).

The president of IBGE is appointed by the President of the Brazilian government. Historically, this procedure has not been an impediment to the technical autonomy of the organization. For example, since 2003, three of four presidents belonged to tenured positions within the organization (Dargent et al., 2018). Despite this context of relative autonomy, since 2016 the country faced a severe political instability period that affected IBGE and the census. The first woman holding the presidency of the country, Dilma Rousseff, was impeached, opening the door for Michel Temer's interim government. Subsequently, Jair Bolsonaro, a former military officer, and a recognized conservative extremist, arrived at power. The political crisis implied a radical transformation in the vision of the government and its organizations: from a progressive left to an extreme right.

This virulence did not leave the tranquility of the statistical system unaltered. During the 14 years Worker's Party government (2002–2016) the Presidents of the IBGE were two tenured functionaries: Eduardo Pereira Nunes (2003–2011) and Wasmália Vivar (2011–2016). The arrival of Temer to the Presidency of Brazil in 2016 meant the arrival to IBGE of Paulo Rabello de Castro, an orthodox economist from the "Chicago School" recognized by its neoclassical views (Brender, 2010). After 11 months in charge, he was appointed president of the strategic public bank *Banco Nacional de Desenvolvimento Econômico e Social* (BNDES). His replacement, Roberto Luis Olinto Ramos, would only last one year and a half. President Bolsonaro appointed, in February 2019, Susana Cordeiro Guerra as the head of IBGE.

Cordeiro Guerra is an American-Brazilian political scientist with degrees from Harvard and MIT. Before accepting her appointment, she was living in the US for more than 20 years, lately working at the WB as an economist. She came at the recommendation of the Minister of Economy Paul Guedes, a key political figure in Bolsonaro's government. Guedes is another economist from the Chicago School and is responsible for the austerity and privatization agenda implemented since 2019 (Chicago Maroon, 2018; ISTOE, 2019). In the first three months of her presidency, Cordeiro Guerra announced that the priority of the administration would be the "increment of productivity and austerity". Immediately, she ordered a reduction of 25% of the 2020 census budget and a significant reduction of the size of the questionnaire. The excluded questions were part to the 2010 official questionnaire and all of them were necessary for the application of key social programs, such as housing deficit, the population residing abroad, type of education (public vs. private), income from other members of the household (keeping only income



from the head), number of hours working per week, and number of babies who died during pregnancy (Rossi, 2019). These changes provoked a reconfiguration of the planning of the census and a strong reaction from several social organizations.

One of the first entities reacting was the Brazilian Association of Population Studies (ABEP), expressing a “great concern regarding the decision of the federal government cutting the budget”, and warning that “this decision does not imply only a reduction in the number of questions, but a compromise in the quality of the entire operation” (ABEP, 2019). Cordeiro Guerra answered that the changes pursue a “better census, not a larger one”, and that decisions were driven by productivity principles (Globoplay, 2019). Nevertheless, concerns grew systematically. For example, labor unions inside and outside of IBGE organized panels to defend the original design of the census, the association of collective health (ABRASCO) announced “incommensurable” damages if pursuing the methodological modifications, scholars from Universities such as UNICAMP and *Universidade Federal do Rio Grande do Norte* (UFRN) published lengthy complaints, and observatories such as the *Observatorio das Metrópoles* published formal protests (ABEP, 2019; Observatório das Metrópoles, 2019). Additionally, external census experts argued that the reduction in the number of questions pointed not only to austerity motivations but also to ideological ones.<sup>11</sup> In the words of one of the interviewees: “it is a tacit and silent privatization. You weaken the public system, and by necessity, consumers of statistics must find the information somewhere else”.<sup>12</sup>

Unlike the US case, the Brazilian intervention provoked also struggle inside the statistical office: IBGE workers, consultants, and experts took divided positions, key technicians resigned, and some denounced that the organization was under attack and that changes represented a raucous ideological shock (Cavenaghi, 2019; ISTOÉ, 2019; O Globo, 2019). The discussion arrived in the political field through public hearings at the Chamber of Deputies, the Federal Attorney for Citizens’ Rights, and the Human Rights Commission of the Federal Senate (Globo, 2019; Senado Notícias, 2019). To complete the picture of actors, and as a second significant difference with the US case, the authorities of IBGE announced cooperation from international organizations such as the IADB. This decision was interpreted as an attempt to gain legitimacy and support for their positions (Parana Cooperativo, 2019).

Despite these mobilizations, the conflict never arrived in the judicial field, and the president of IBGE declared closed the opportunities to revise her decisions regarding the questionnaire (Agencia IBGE, 2019). However, in August 2019, the same IBGE president, as a reaction to the announcements of new budget cuts to the census, sent a communication to the Minister of Economy warning that the census was at risk due to a lack of resources (Metro 1, 2019). Curiously enough, the arrival of COVID-19 meant an agreement between the parties: the census had to be suspended either due to priorities of health expenditures in the government, or to have more time to organize a reprogramming of the operation without affecting the methodology (Globo, 2020). Due to increasing disagreements with the government, President Cordeiro Guerra resigned from her position and the interim presidency is currently trying to continue the planning of the census under even more threats of budget cuts from the central government.

The case of Brazil exhibits three differences and one similarity with the US. First, it shows a type of intervention from the central government that involved intermediaries that affected the process from *within* the IBGE and shows how the reaction from social actors achieved political attention but failed in the process of judicialization. Additionally, external actors, in the figure of multilateral financial institutions, were used as a mechanism of legitimization. However, in the same way as in the US, the political intervention managed to maintain professional profiles in the heads of the statistical office which, as we will see later, it is not always the case. The consequences of the Brazilian census still need to be evaluated, but they are far from not affecting the process originally designed by IBGE.

### **5.6 An IMF agreement weakening an already fragile system: the case of Ecuador**

The Ecuadorian Directorate of Statistics and Censuses (Dirección General de Estadística y Censos) was created in 1944, partially as a consequence of international attempts to institutionalize public statistics in the Latin American Region. In 1950, as a part of the continental initiative labeled as “Census of the Americas”, the country executed the first national census (Villacís, 2021). The National Institute of Statistics was created in 1970 under a military regime, and six years later, the Statistical Law created the National Institute of Statistics and Censuses (INEC) (Villacís & Thome, 2020). Since then, the country has executed seven population censuses, frequently affected by political and institutional instabilities (Villacís, Thiel, Capistrano, & da Silva, 2022). In the last two decades, there have been three significant institutional reforms. First, in 2007, the institute changed its organizational dependency from the Minister of Finance to the National Secretary of Planning and Development (SENPLADES). This change meant an organizational strengthening due to improvements in the budget and expansion of autonomy. Then, in 2016 the law “Código Ingenios” comprised the requirement that the head of INEC must have a PhD in the field and relevant experience.<sup>13</sup> Finally, in 2019, a Presidential decree changed the organizational dependency from SENPLADES to the Presidency of the Republic, provoking a loss of autonomy and damages to the public credibility of INEC (El Comercio, 2019; INEC, 2015a; Presidencia de la República del Ecuador, 2007). This tumultuous history frames the context of the Ecuadorian statistical system: an unstable space usually affected by frequent political interventions.

INEC started to organize the 2020 census in 2017; however, plans were dramatically affected because of accumulated consequences of organizational instability, technical mistakes, and political interventions. In the period 2012–2021, the entity had ten Directors, that is, an average nine months per administration. None of the heads of INEC in the last 20 years had tenure.<sup>14</sup> This instability was combined with polemic methodological changes that affected the public image of the organization.<sup>15</sup> For example, in 2014, the National Household Survey of Employment (ENEMDU) suffered major methodological transformations in the categories of underemployment (Villacís, 2014). This was interpreted as a consequence of public

complaints from the then President of the Republic, Rafael Correa, who criticized that underemployment was “too high” and that the category should be revised. A few months later, INEC took a submissive attitude and decided to change the categories without public consultation or technical discussion. The change resulted in a substantial reduction in the proportion of underemployment and the subsequent creation of a new category: “Inadequate employed”<sup>16</sup>. However, President Correa, publicly criticized one more time the new categories, arguing that they make no sense, and explicitly ordering that INEC should revise them (SECOM, 2016, p. 27, 13). Again, INEC changed the methodologies, this time creating the label “Non-Complete Employed” and eliminating the “Inadequate employed” (Villacís, 2016a, 2016b). A few months later, INEC changed another key indicator of economic performance: the level of informality; which, again, the change resulted in a substantial reduction in its proportion (INEC, 2015b). These changes did not go unnoticed by the public opinion that interpreted INEC as an organization that politically intervened and passively disposed to change methodologies according to political moods (Carrión Sanchez, 2018).

Unfortunately, conditions worsened after 2016. Several policies concerning access to public data started to be ignored, users complained due to difficulties in accessing to information, questions in official surveys were changed without participative processes, and the calendar of publications started to be informally administrated<sup>17</sup>. In 2018, the methodology of ENEMDU was changed one more time. In this case, INEC modified the sample in a way that implied the loss of statistical representation at the provincial level; breaking a statistical series that used to be available for more than 15 years. INEC justified the change due to the reduction of the budget for the survey and redesign of the questionnaire due to efficiency evaluations<sup>18</sup> (Villacís, 2019). Then in 2019 temporal heads of the institute changed one more time the methodology affecting the expansion factors,<sup>19</sup> to then change one more time the methodology to come back to the version of 2019. In sum, the most sensitive survey for the public opinion suffered five methodological changes in the last six years. This virulence solidified the public concerns regarding explicit political intervention, loss of autonomy, and dismantling of the statistical system (Diario La Hora, 2019).

Concurrently to all these events, President Moreno decided to implement in the country an aggressive agenda of austerity, reduction of the size of the state, and privatization of public services (Salgado, 2019). The government depended mainly on an agreement with the International Monetary Fund (IMF), which in practical terms, implied the elimination of the public planification system (SENPLADES), and a subsequent dismantling of public statistics (Diario La Hora, 2021; El Universo, 2019b). Public workers and functionaries got fired, and for those who stayed, their salaries were reduced; all the new positions were eliminated, and public investments were suspended (El Universo, 2019a). Under these circumstances, the 2020 census was supposed to be planned. By no surprise, its budget, was affected,<sup>20</sup> a significant portion of workers of the project was laid off, the questionnaire received criticism due to the informality in the process of construction of questions and the elimination of essential variables,<sup>21</sup> and the stage of cartographic update (a crucial

component of the operative) presented major delays.<sup>22</sup> It is in this context – that is, an already weak and erratic system – that the pandemic of COVID-19 arrived, delaying the execution of the census (El Comercio, 2020). In December 2020, the then Director announced that the census was suspended and that INEC was looking for external financial support (CEPAL, 2020), especially from the IADB.<sup>23</sup> Same as the Brazilian case, the help from international financial institutions was interpreted as a mechanism to desperately obtain some external legitimacy. Meanwhile, media reports and opinion experts confirmed that the census will not be executed even in 2021, generalizing the idea that the institution is in a structural crisis. In the words of a national newspaper front-page report about INEC: “the statistical system and the census is stuck in a swamp” (Diario La Hora, 2021).

Unlike the cases of the US and Brazil, these interventions, beyond some isolated opinion pieces, did not generate reactions from civil society. Academics and analysts were absent or only voiced their opinions in private.<sup>24</sup> The case of Ecuador exemplifies a structurally intervened statistical system combined with weak (or even absent) reactions from civil society. In addition to this, the Ecuadorian case shows a further difference: the heads of the institute have a traditionally less professional background and less legitimation of credentials when compared with tenure statisticians, such as in the case of Brazil or, endorsement of externally validated professionals, such the case of the US.

## 5.7 A comparative perspective

The clearly differentiated space of production of censuses in these countries fabricates statistical outcomes that later are naively interpreted as equal objects of analysis. In frequent cases, they are merged as if they were produced under homogenous administrative processes. In this section, I deploy a systematic comparison of the described cases to highlight dimensions that should be considered to avoid superficial understandings of these operations. I argue that there are three points of interest at the moment of comparing the crises which, at the time, help to make visible differentiated spaces of census production: the identification of actors, the mechanisms of the intervention, and the way in which societies react. Nevertheless – and as emphasized in the chapter – the point is to make a comparison according to each context, to interpret differences and convergences only then. This context is problematized by the background of each statistical system, by the nature of the political intervention, and the arrival of the pandemic of COVID-19.

The construction of a dispersed and stable statistical system in the US is a consequence of an institutionalized network of public organizations with defined rules and administrative autonomy (Sullivan, 2020). However, this background did not liberate the country from political interventions (Emigh et al., 2016; Mora, 2014; Porter, 1996, pp. 41–43). In the case reported, the federal government attempted influence using legal and organizational weapons: (1) assigning the task of intervention to the Secretary of Commerce, (2) deploying a political order inside the state apparatus, and (3) fighting in the judicial field. Although Trump lost the legal battle, it is not enough to conclude that his defeat was complete. First, the change of

Ron S. Jarmin for Steven Dillingham in the CB Direction effectively silenced the voice that should have played a technical role. Second, the operation of the census is already affected: there are significant concerns about the impact that the intervention will have on the participation of minorities. Nonetheless, in this case, the capacity of mobilization of activists and civil organizations avoided major damages and conquered legal reactions.

If there is one significant difference between the US and Brazil, is that in the latter, the capacity to capitalize the complaints in the legal field is absent. Despite the mobilization of NGOs, academia, unions, and even workers inside IBGE, the protests did not solidify in a place of resolution where an independent third party or a judge could decide. The place of struggle was predominantly the political field where the government had a clear advantage. This happened in a country where its statistical office is recognized as autonomous and exemplary for the Latin American Region. Even with this traditional prestige, the institution could not block the intervention. For some analysts, this occurred, at least in part, as a consequence of the political polarization of justice: the crisis of the census happened at a moment when the change of presidents of the country was linked to political interventions into the judicial system (Nunes & Melo, 2019). Another difference between the US and Brazil is that in the latter the reaction and struggle was present outside *and* inside the statistical office, showing that society has established mechanisms to defend the autonomy organically inserted in the statistical system. The case of Ecuador is more concerning: the country does not have a legitimized statistical system. Its history with population censuses is recent, usually affected by international influences and organizational instabilities with ephemeral periods of strengthening. What is more significant, however, is the absence of reaction from social groups, either through organized collectives, such as in the case of Brazil, or through legal channels, such as the US. High levels of instability and weak governments depending on the agendas of international financial agencies seem to complicate the panorama. One commonality between Ecuador and Brazil is precisely the attempted role of legitimation that plays these international organizations; however, the external intervention seems to generate an effect, intentional or not, of silencing internal actors. Finally, there is one key difference between the Ecuadorian case with the US and Brazil. In the former the level of professionalization is significantly reduced: despite attempts to improve the profile of the heads of INEC, the system still struggles to have high-level professionals that avoid intervention and procure an autonomous agenda.

Table 5.1 deploys a comparison among the cases through three categories of analysis. In the first four rows, it compares the country and organizational contexts. The size of the population is included to understand the institutional and logistical complexity. The age of the office in charge and the number of censuses help to understand the experience and trajectory of the entities. The appointment of the authorities helps to explain how easy a direct intervention from the central government is. This first section confirms the matureness of the US system and the frailer variations of Brazil and Ecuador. The second set of seven rows explains the nature of the crisis in each case: the specificity of intervention, using Prewitt's (2010)

Table 5.1 Crisis of the census in US, Brazil, and Ecuador – Contexts, actors, and outcomes

		<i>US Census Bureau</i>	<i>IBGE Brazil</i>	<i>INEC Ecuador</i>
Context of the Organism in charge of the Census	Country population (MM, 2019)	328	209	17
	Statistical office antiquity (# Years)	118	84	44
	Number of censuses Executed	23	12	7
Context of Conflict	Appointment of authorities	Nominated by the president and confirmed by the Congress	Designated by the President of the Republic	Designated by the President of the Republic
	Type of intervention	Political and judiciary: Central government introducing a question and rejection in the judicial field	Organizational: new government inserts a neoliberal agenda that affects the statistical system	Institutional: Within a fragile background government dismantled the statistical system due to the implementation of the neoliberal agenda
	Agents intervening in the census	Minister of Commerce (active), Department of Justice (reactive)	President of IBGE (active), President of the Republic	President of the Republic
	Agents defending the census	NGOs, State Governors, Ethnic Associations, among others	Unions, Academics, NGOs	NA
	Designated adjudicator	Supreme Court of Justice	NA	NA
	Type of battle	Legal	Bureaucratic	No public conflict
	Intervention linked to change of political ideology of government	Yes (Shift from Democrats to Conservative Republicans)	Yes (Shift from progressive left to extreme right)	Yes (Shift from progressive left to conservative right)

(Continued)

*Table 5.1 (Continued)*

	<i>US Census Bureau</i>	<i>IBGE Brazil</i>	<i>INEC Ecuador</i>
Impact and role of COVID-19	Used as an excuse from the government to delay legal resolutions attempting to affect the implementation of the calendar.	Used as an argument from both conflicting parties to delay the resolution.	Used as an excuse by INEC to delay the operation by at least one year and justify internal mistakes.
General Outcome	Controversial question not included, but affection in quality due to fear of segments of the population.	Questionnaire reduced and operative under risk due to lack of funds.	Census under risk due to lack of funds and loss of public trust in the institution.

*Source:* Author.

definition, the agents intervening, the existence (or not) of a ruler solving the conflict, the field where the conflict took relevance, the association between the intervention with the change of political ideology in the government, and the effect that COVID-19 caused in the operation. The last row describes the consequences of the crisis and general specifications for each country. Despite the three cases departing from a differentiated context and went through diverse types of interventions, they converged in the timing associated with changes in the ideological vision of the government. The shift from Democrats to Republicans in 2017 in the US and the shift from progressive to conservative right governments in Brazil (2019) and Ecuador (2017) marked a turning point that materialized the crisis.

## 5.8 Discussion

Population censuses, when compared with other public statistics, have the appearance of technicality, and reduced political bias. This chapter has documented the ample possibilities of political intervention even within mature and stable statistical systems. The identification of actors, mechanisms, effects, and convergences vindicates the need to understand the contexts where censuses are produced *before* attempts to analyze statistical outcomes. In the same way, it showed that political interventions could take the form of direct methodological modifications, but also, the form of defunding and dismantling statistical systems and public trust. In this latter scenario, when no census is produced or when questions are eliminated, it deploys two effects: the uncertainty is socialized, and the possibilities of statistical production get reduced to those who have the economic means to produce them in the private sector. In other words, an intervention in the statistical system in the form of dismantling public capacities is a latent but effective form of privatization. From these elements emerge two points of discussion.

First, the performance of public statistics requires a body of expertise institutionalized in the responsible agencies. However, there are at least, two additional components to procure their appropriate performance. On the one hand, a functional legal infrastructure is needed to facilitate the activation of protections against interventions. This infrastructure needs to be autonomous and to have sufficient capacity to resolve conflicts within time restrictions of statistical operations. This implies that knowledge about the role of public statistics should be internalized in the bureaucratic apparatus. If the effectiveness of juridical resolutions is absent – or even if they are unhurried – political interventionists will take advantage of the system.

On the other hand, if social spaces inside and outside the state are not able to voice claims from civil society, the interventions will be easily executed. This is evident thanks to the comparative perspective of the investigation and coherent with the notion that, by far, one the most pregnant dimensions of variation when comparing statistical systems has to do with the sheer volume of political engagement, whether it is of a contentious or a more institutionalized type (Fourcade et al., 2016, p. 16). In the same way, the comparison exhibits that the distribution of political and economic capital between professionals, activists, journalists, judges, bureaucrats,



and elites are essential to understand how societies react when population census are politically intervened and what institutions are essential to resist the intervention. The most dramatic case is Ecuador, where the legal system was not tested because there were no attempts to formalize complaints against the dismantling of the statistical system. The dispossession of knowledge regarding the most elemental categories that define social groups is represented by the passive acceptance of severe modifications in questions, categories, methodologies, and bureaucratic procedures; a neat demonstration of symbolic violence deployment (Bourdieu, 2014, p. 66, 125, 145). In this sense, the construction of a strong statistical system, and state formation, implies the strengthening of mechanisms of social mobilization, and even the recognition of the existence of spaces for collective action. This also points to the notion that interventions can be explicit and noisy, but also silent and latent.

Second, when analyzing institutional conditions of statistical systems is necessary to pay attention to the organizations performing a formal role in the state but also in the social structures in society. What is the role of academia? What do civil organizations have to say? What is the role of workers and unions? What is the position of those who are not in power? Population censuses belong to the family of public statistics embedded in societal complexities; this implies that they are constructed – or destroyed – within social contexts. Consequently, the global scripts of census that attempt to define (or associate) them with the idea of objectivity are inevitably the result of political and social struggles, whether apparent or unobtrusive, which social sciences has the role of documenting and interpreting.

## Notes

- 1 I am very grateful for the comments from Mara Loveman, Laura Enriquez, and participants of the Genealogies of Data Junior Scholars Workshop (May 2021) supported by the UC San Diego Institute for Practical Ethics, the USF Center for Applied Data Ethics, and the UC San Diego International Institute.
- 2 This includes the subsidiary offices of UN: United Nations Population Fund (UNFPA) and the Economic Commission for Latin American and the Caribbean (ECLAC).
- 3 Media reports were systematized through the three major newspaper of each country and complemented by segmented searches through Factiva Dow Jones ® under the license of UC Berkeley.
- 4 In the case of the US the interviews include: one former CB census manager, one director in charge of communications and public relations, two academics specialized in census methodology and one journalist covering in detail the 2020 census round. In the case of Brazil, the interviews included two directors from the IBGE, one external census analyst (and former IBGE manager), one journalist covering the census with weekly reports and one academician with extensive investigations on the Brazilian census. The case of Ecuador included one former director in charge of the census, one academician studying the census and one head of an NGO investigating the 2020 census round. Finally, I interviewed two directors of regional offices in charge of supporting and founding Latin American census operations through offices of United Nations. All interviews were recorded in audio, transcribed, coded, and analyzed.
- 5 While there is vast literature regarding the ideological position of Trump and Bolsonaro, there are fewer contributions analyzing the case of Moreno. Becker and Riofrancos (2018) and Chiasson-LeBel (2019) offer a detailed description on how he implemented a radical neoliberal agenda in Ecuador through alliances with right-wing elites.

- 6 Number of people living or staying at home, type of ownership, sex, age, race, ethnicity, and relation among members of the household.
- 7 The Secretary of Commerce supervises the CB.
- 8 Interviews with academic specialized in census methodology (June 2019) and journalist covering in detail the 2020 census round (August 2019).
- 9 Interview with academic specialized in census methodology (January 2020) and Interview with former CB census manager (March 2020).
- 10 IBGE headquarters are in Rio de Janeiro, not in the political capital Brasilia.
- 11 Interview with external census analyst and former IBGE manager (November 2019).
- 12 Interview with journalist (October 2019) and interview with external census analyst and former IBGE manager (November 2019).
- 13 This theoretical advance in the autonomy of the institute only worked in paper because, since its conception, the law has not been put in practice: on the one hand the government ignores the requirement, and on the other hand there are no complaints from civil society actors or politicians.
- 14 At the end of 2012 the statistician David Vera was temporarily commissioned for three months, then President Correa designated the economist Jose Rosero, who stayed in office four years; then Jorge Garcia was temporarily commissioned for 22 days, then President Correa designated David Vera, who lasted six months; then Jorge Garcia was temporarily commissioned for eight months, then President Moreno designated Reinaldo Cervantes who lasted six months, then Rodrigo Castillo was temporarily commissioned for one year, and then President Moreno officially designated Diego Andrade, who abruptly quit on January 2021, delegating the direction to Victor Bucheli who was temporarily commissioned until the arrival of the new government.
- 15 Interviews with regional technical advisor from international organization (January 2020) and former head of the census operative (September 2019).
- 16 Before this change the official survey used to publish employment indicators dividing the total of the Economic Active Population in three big groups: unemployed, underemployed, and employed. After the change it appeared a new category “Inadequate employed”, splitting the previous underemployed in two big subgroups (underemployment and inadequate employment). The decision caused that the underemployment now was about 50% of its previous value; however –and this is essential – the name of the category “underemployed” did not change with the methodological variation, causing obvious confusion among users.
- 17 The three interviewees from Ecuador (director in charge of the census in September 2019, academican studying the census in October 2019, and one head of an NGO investigating the 2020 census in December 2019) pointed to these complaints at some point of the interviews.
- 18 Interviews with an academican (October 2019), a head of an NGO investigating the 2020 census (December 2019).
- 19 These factors are sets of numbers used to expand, or in simple words multiple, the individual responses up to an estimate for the entire population.
- 20 According to interviews to the internal director and the head of the NGO investigating censuses in Ecuador, the budget for the first stage was cut in 35% and 42% for the second stage.
- 21 This included the attempt of eliminate the category of “mestizos” from the alternatives in the question of ethnic self determination. The elimination would have immense impact in the ethnic depiction of the country; this is because according to previous census the category of mestizos has around 70% of the population (Villacis, 2020).
- 22 Interview with former director in charge of census (September 2019).
- 23 Interview with regional officer in charge of supporting and founding Latin American census operations (January 2020).
- 24 This was a consensus in the interviews with regional technical advisor from international organization (January 2020), with the former head of the census operative (September 2019), with academican studying the census (October 2019), and the head of an NGO investigating (December 2019).

## References

- ABEP. (2019). *Censo 2020*. Associação Brasileira de Estudos Populacionais. Retrieved from <http://www.abep.org.br/site/index.php/noticias-censo-2020?start=115>
- Agencia IBGE. (2019, July 1). Com questionário definido, conheça as perguntas que serão feitas no Censo 2020. *Agencia IBGE*. Retrieved from <https://agenciadenoticias.ibge.gov.br/agencia-noticias/2012-agencia-de-noticias/noticias/24914-com-questionario-definido-conheca-as-perguntas-que-serao-feitas-no-censo-2020>
- Alonso, W., & Starr, P. (1989). *The politics of numbers*. New York, NY: Russell Sage Foundation.
- Anderson, B. (1983). *Imagined communities: Reflections on the origin and spread of nationalism*. London, England: Verso.
- Anderson, M. J. (1988). *The American census: A social history* (3rd pr). New Haven, CT: Yale University Press.
- ASA. (2018, March 28). ASA fights against adding citizenship question to census. *American Sociological Association*. Retrieved from <https://www.asanet.org/census-citizenship-question>
- Baffour, B., King, T., & Valente, P. (2013). The modern census: Evolution, examples and evaluation. *International Statistical Review/Revue Internationale de Statistique*, 81(3), 407–425.
- Baumgaertner, E. (2018, March 26). Despite concerns, census will ask respondents if they are U.S. citizens. *The New York Times*. Retrieved from <https://www.nytimes.com/2018/03/26/us/politics/census-citizenship-question-trump.html>
- Becker, M., & Riofrancos, T. N. (2018). A souring friendship, a left divided: In Ecuador, ideological differences, corruption allegations, and a wider debate over term limits and political control underscore a feud between President Lenin Moreno and his predecessor Rafael Correa. *NACLA Report on the Americas*, 50(2), 124–127. doi:10.1080/10714839.2018.1479452
- Boltanski, L., & Thévenot, L. (2006). *On justification: Economies of worth*. Princeton, NJ: Princeton University Press.
- Bourdieu, P. (2014). *On the state: Lectures at the Collège of France 1989–1992*. Cambridge, England: Polity Press.
- Brender, V. (2010). Economic transformations in Chile: The formation of the Chicago Boys. *The American Economist*, 55(1), 111–122. doi:10.1177/056943451005500112
- Bromwich, J. E. (2017, May 10). Census director to resign amid worries over 2020 head count. *The New York Times*. Retrieved from <https://www.nytimes.com/2017/05/10/us/politics/john-h-thompson-quits.html>
- Brown, L. D. E. (1998). Statistical controversies in census 2000. *Jurimetrics*, 39, 347.
- Carrión Sanchez, D. (2018). Los Números también mienten: Subempleo y Estadística Laboral en el Ecuador. *Revista Economía*, 70(112), 121–136.
- Cavenaghi, S. (2019). Por um Censo Demográfico de qualidade em 2020. *Scribd*. Retrieved from <https://es.scribd.com/document/408169248/Por-um-Censo-Demografico-de-qualidade-em-2020>
- Census Bureau. (2005, January 3). *Agency history—History—U.S. Census Bureau*. Retrieved from [https://www.census.gov/history/www/census\\_then\\_now/](https://www.census.gov/history/www/census_then_now/)
- Census Bureau. (2019, January 24). *2020 census barriers, attitudes and motivators study*. The United States Census Bureau. Retrieved from [https://www.census.gov/programs-surveys/decennial-census/2020-census/research-testing/communications-research/2020\\_cbams.html](https://www.census.gov/programs-surveys/decennial-census/2020-census/research-testing/communications-research/2020_cbams.html)

- CEPAL. (2020). *Informe de la XIX Reunión del Comité Ejecutivo de la Conferencia de Estadística de las Américas de la CEPAL* (Reporte Interno LC/CE,19/4). Retrieved from [https://repositorio.cepal.org/bitstream/handle/11362/46530/S2000952\\_es.pdf](https://repositorio.cepal.org/bitstream/handle/11362/46530/S2000952_es.pdf)
- Challú, C., Seira, E., & Simpser, A. (2020). The quality of vote tallies: Causes and consequences. *American Political Science Review*, 114(4), 1071–1085. doi:10.1017/S0003055420000398
- Chiasson-LeBel, T. (2019). Neoliberalism in Ecuador after Correa. *European Review of Latin American and Caribbean Studies/Revista Europea de Estudios Latinoamericanos y Del Caribe*, 108, 153–174.
- Chicago Maroon. (2018). UChicago Ph.D. Paulo Guedes may become next finance minister of Brazil. *Chicago Maroon*. Retrieved from <https://www.chicagomaroon.com/article/2018/10/16/uchicago-alum-paul-guedes-may-become-next-finance/>
- Coale, A. J., & Hoover, E. M. (2015). *Population growth and economic development*. Princeton, NJ: Princeton University Press.
- Condran, G. A. (1984). An evaluation of estimates of underenumeration in the census and the age pattern of mortality, Philadelphia, 1880. *Demography*, 21(1), 53. doi:10.2307/2061027
- Cornwell, S. (2018, November 14). House democrat to probe census citizenship question. *Reuters*. Retrieved from <https://www.reuters.com/article/us-usa-congress-census/house-democrat-to-probe-census-citizenship-question-idUSKCN1N1J1FW>
- Curtis, B. (2001). *The politics of population: State formation, statistics, and the census of Canada, 1840–1875*. Toronto, Canada: University of Toronto Press.
- Dargent, E., Lotta, G. S., Mejía, J. A., Moncada, G., Inter-American Development Bank, & Innovation in Citizen Services Division. (2018). *¿A quién le importa saber? La economía política de la capacidad estadística en América Latina*. Washington, DC: Banco Interamericano de Desarrollo.
- Desrosières, A. (1998). *The politics of large numbers: A history of statistical reasoning*. Cambridge, MA: Harvard University Press.
- Desrosières, A. (2011). The economics of convention and statistics: The paradox of origins. *Historical Social Research/Historische Sozialforschung*, 36(4 (138)), 64–81.
- Desrosières, A. (2012). Words and numbers: For a sociology of the statistical argument. In A. R. Saetnan, H. M. Lomell, & S. Hammer (Eds.), *The mutual construction of statistics and society* (pp. 41–63). New York, NY: Routledge.
- de Vogue, A., & Hartfield, E. (2019, April 5). Third federal judge blocks census citizenship question. *CNN*. Retrieved from <https://www.cnn.com/2019/04/05/politics/census-citizenship-question-ruling/index.html>
- Diario La Hora. (2019, May 14). INEC pasa a ser una instancia adscrita a la presidencia. *La Hora*. Retrieved from <https://lahora.com.ec/loja/noticia/1102243369/inec-pasa-a-ser-una-instancia-adscrita-a-la-presidencia>
- Diario La Hora. (2021, January 29). Ecuador vuela a ciegas sin estadísticas fiables y oportunas de empleo y pobreza. *La Hora*. Retrieved from <https://lahora.com.ec/noticia/1102339327/ecuador-vuela-a-ciegas-sin-estadisticas-fiables-y-oportunas-de-empleo-y-pobreza>
- Durand, J. D. (2015). *The labor force in economic development: A comparison of international census data, 1946–1966*. Princeton, NJ: Princeton University Press.
- El Comercio. (2019, May 13). Lenin Moreno dispone que el INEC pase a la Presidencia y crea “Planifica Ecuador” para sustituir a la Senplades. *El Comercio*. Retrieved from <http://www.elcomercio.com/actualidad/inec-presidencia-planifica-ecuador-senplades.html>
- El Comercio. (2020, March 25). Procesos para el censo de población se reprogramarán. *El Comercio*. Retrieved from <http://www.elcomercio.com/actualidad/censo-poblacion-ecuador-reprogramacion-coronavirus.html>

- El Universo. (2019a, May 1). Trabajadores marcharon en contra del FMI, la política laboral y gobierno de Lenín Moreno. *El Universo*. Retrieved from <https://www.eluniverso.com/noticias/2019/05/01/nota/7311824/trabajadores-marcharon-contra-fmi-politica-laboral-gobierno-lenin>
- El Universo. (2019b, May 13). Gobierno suprime Senplades y crea Secretaría Técnica Planifica Ecuador. *El Universo*. Retrieved from <https://www.eluniverso.com/noticias/2019/05/13/nota/7329230/gobierno-suprime-senplades-crea-secretaria-tecnica-planifica>
- Elliott, J. (2017, December 29). Trump Justice Department pushes for citizenship question on census, Alarming experts. *ProPublica*. Retrieved from <https://www.propublica.org/article/trump-justice-department-pushes-for-citizenship-question-on-census-alarming-experts>
- Emigh, R. J., Riley, D., & Ahmed, P. (2015). The racialization of legal categories in the first U.S. census. *Social Science History*, 39(4), 485–519.
- Emigh, R. J., Riley, D., & Ahmed, P. (2016). *Changes in censuses from imperialist to welfare states how societies and states count*. New York, NY: Palgrave Macmillan.
- Emigh, R. J., Riley, D., & Ahmed, P. (2020). The sociology of official information gathering: Enumeration, influence, reactivity, and power of states and societies. In T. Janoski, C. De Leon, J. Misra, & I. W. Martin (Eds.), *The new handbook of political sociology* (pp. 290–320). Cambridge, England: Cambridge University Press.
- Eriksson, K., Niemesh, G. T., & Thomasson, M. (2018). Revising infant mortality rates for the early twentieth century United States. *Demography*, 55(6), 2001–2024. doi:10.1007/s13524-018-0723-2
- Fourcade, M., Lande, B., & Schofer, E. (2016). Political space and the space of politics: Doing politics across nations. *Poetics*, 55, 1–18. doi:10.1016/j.poetic.2015.12.002
- Gamboa, S. (2018, October 4). Trump has created a census conundrum for Latino groups with planned citizenship question. *NBC News*. Retrieved from <https://www.nbcnews.com/news/latino/trump-has-created-census-conundrum-latino-groups-planned-citizenship-question-n916461>
- Gill, M. S. (2007). Politics of population census data in India. *Economic and Political Weekly*, 42(3), 241–249.
- Globo. (2019, July 1). MPF pede esclarecimentos do IBGE sobre cortes no Censo 2020. *g1.globo*. Retrieved from <https://g1.globo.com/economia/noticia/2019/07/10/mpf-pede-esclarecimentos-do-ibge-sobre-cortes-no-censo-2020.ghtml>
- Globo. (2020, March 17). Censo é adiado para 2021 por avanço do coronavírus; concurso fica suspenso. *g1.globo*. Retrieved from <https://g1.globo.com/economia/noticia/2020/03/17/censo-e-adiado-para-2021.ghtml>
- Globoplay. (2019). Presidente do IBGE diz que corte no orçamento do censo não vai prejudicar a pesquisa. *Globoplay*. Retrieved from <https://globoplay.globo.com/v/7586812/>
- GOVTRACK. (2012, October 10). Presidential appointment efficiency and streamlining Act of 2011 (2012—S. 679). *GovTrack*. Retrieved from <https://www.govtrack.us/congress/bills/112/s679>
- Hirschman, C., Alba, R., & Farley, R. (2000). The meaning and measurement of race in the U.S. census: Glimpses into the future. *Demography*, 37(3), 381. doi:10.2307/2648049
- Hogan, H., Cantwell, P. J., Devine, J., Mule, V. T., & Velkoff, V. (2013). Quality and the 2010 Census. *Population Research and Policy Review*, 32(5), 637–662.
- Howitt, P. (1999). Steady endogenous growth with population and R. & D. Inputs growing. *Journal of Political Economy*, 107(4), 715–730.
- IBGE. (2020). Population census. *IBGE*. Retrieved from <https://www.ibge.gov.br/en/statistics/social/population/22836-2020-census-censo4.html>

- INEC. (2015a). *Una mirada histórica a la estadística del Ecuador*. Instituto Nacional de Estadística y Censos.
- INEC. (2015b). *Actualización metodológica de Empleo Informal*. Instituto Nacional de Estadística y Censos. Retrieved from [https://www.ecuadorencifras.gob.ec/documentos/web-inec/EMPLEO/2015/Junio-2015/Metogologia\\_Informalidad\\_notatecnica.pdf](https://www.ecuadorencifras.gob.ec/documentos/web-inec/EMPLEO/2015/Junio-2015/Metogologia_Informalidad_notatecnica.pdf)
- ISTOÉ. (2019). Paulo Guedes tratará de transição na presidência do IBGE em reunião no Rio. *ISTOÉ Independente*. Retrieved from <https://istoe.com.br/paulo-guedes-tratara-de-transicao-na-presidencia-do-ibge-em-reuniao-no-rio/>
- ISTOÉ. (2019, May 1). IBGE sob ataque. *ISTOÉ Independente*. Retrieved from <https://istoe.com.br/ibge-sob-ataque/>
- Jaadla, H., Reid, A., Garrett, E., Schürer, K., & Day, J. (2020). Revisiting the fertility transition in England and Wales: The role of social class and migration. *Demography*, 57(4), 1543–1569. doi:10.1007/s13524-020-00895-3
- Kaiser, H. F. (1968). A measure of the population quality of legislative apportionment. *American Political Science Review*, 62(1), 208–215. doi:10.1017/S0003055400115734
- Kastellec, J. P., Lax, J. R., Malecki, M., & Phillips, J. H. (2015). Polarizing the electoral connection: Partisan representation in supreme court confirmation politics. *The Journal of Politics*, 77(3), 787–804. doi:10.1086/681261
- Kukutai, T., Thompson, V., & McMillan, R. (2015). Whither the census? Continuity and change in census methodologies worldwide, 1985–2014. *Journal of Population Research*, 32(1), 3–22.
- LCCHR. (2018, July 25). *131 Groups fight to remove 2020 census citizenship question*. The Leadership Conference on Civil and Human Rights. Retrieved from <https://civilrights.org/2018/07/25/131-groups-fight-remove-2020-census-citizenship-question/>
- Losch, A. (1937). Population cycles as a cause of business cycles. *The Quarterly Journal of Economics*, 51(4), 649. doi:10.2307/1881683
- Loveman, M. (2005). The modern state and the primitive accumulation of symbolic power. *American Journal of Sociology*, 110(6), 1651–1683. doi:10.1086/428688
- Loveman, M. (2009). The race to progress: Census taking and nation making in Brazil (1870–1920). *Hispanic American Historical Review*, 89(3), 435–470. doi:10.1215/00182168-2009-002
- Loveman, M. (2014). *National colors: Racial classification and the state in Latin America*. Oxford, England: Oxford University Press.
- Lo Wang, H. (2017, December 22). *Page 6659 of administrative record for census citizenship question lawsuits*. Retrieved from <https://www.documentcloud.org/documents/5022599-0006659.html>
- Lo Wang, H. (2018a, January 10). Adding citizenship question risks “bad count” for 2020 census, experts warn. *NPR*. Retrieved from <https://www.npr.org/2018/01/10/575145554/adding-citizenship-question-risks-bad-count-for-2020-census-experts-warn>
- Lo Wang, H. (2018b, June 21). Census overseers seeded DOJ’s request to add citizenship question, memo shows. *NPR*. Retrieved from <https://www.npr.org/2018/06/21/622409505/before-doj-request-commerce-secretary-considered-adding-census-citizenship-quest>
- Lo Wang, H. (2018c, July 11). Citizenship question controversy complicating census 2020 work, bureau director says. *NPR*. Retrieved from <https://www.npr.org/2018/07/11/627350553/citizenship-question-controversy-complicating-census-2020-work-bureau-director-s>
- Lo Wang, H. (2019a, January 15). Judge orders Trump administration to remove 2020 census citizenship question. *NPR*. Retrieved from <https://www.npr.org/2019/01/15/671283852/judge-orders-trump-administration-to-remove-2020-census-citizenship-question>

- Lo Wang, H. (2019b, April 1). Census bureau must be “totally objective” on citizenship question, director says. *NPR*. Retrieved from <https://www.npr.org/2019/04/01/707628958/census-bureau-must-be-totally-objective-on-citizenship-question-director-says>
- Lo Wang, H. (2019c, July 11). Trump backs off census citizenship question fight. *NPR*. Retrieved from <https://www.npr.org/2019/07/11/739858115/trump-expected-to-renew-push-for-census-citizenship-question-with-executive-act>
- Lo Wang, H. (2021, January 20). Biden ends Trump census policy, ensuring all persons living in U.S. are counted. *NPR*. Retrieved from <https://www.npr.org/sections/inauguration-day-live-updates/2021/01/20/958376223/biden-to-end-trump-census-policy-ensuring-all-persons-living-in-u-s-are-counted>
- Maestas, N., Mullen, K. J., & Powell, D. (2016). *The effect of population aging on economic growth, the labor force and productivity*. National Bureau of Economic Research.
- Mangan, D., & Breuninger, K. (2019, July 3). Trump says he is “absolutely moving forward” with census citizenship question, contradicting his own administration. *CNBC*. Retrieved from <https://www.cbc.com/2019/07/03/trump-says-absolutely-moving-forward-with-census-citizenship-question.html>
- Marshall, A. (2017, May 11). Bad news for everyone! The 2020 census is already in trouble. *Wired*. Retrieved from <https://www.wired.com/2017/05/bad-news-everyone-2020-census-already-trouble/>
- Mervis, J. (2018, July 20). Census bureau nominee becomes lightning rod for debate over 2020 census. *Science*. Retrieved from <https://www.sciencemag.org/news/2018/07/census-bureau-nominee-becomes-lightning-rod-debate-over-2020-census>
- Mervis, J. (2020, July 30). Census director dodges legislators’ questions about Trump memo on undocumented residents. *Science*. Retrieved from <https://www.sciencemag.org/news/2020/07/census-director-dodges-legislators-questions-about-trump-memo-undocumented-residents>
- Metro 1. (2019, August 1). IBGE alerta Guedes que Censo 2020 está ameaçado por falta de recursos. *Metro 1*. Retrieved from <https://www.metro1.com.br/noticias/economia/79070,ibge-alerta-guedes-que-censo-2020-esta-ameacado-por-falta-de-recursos>
- Mora, G. C. (2014). *Making hispanics: How activists, bureaucrats, and media constructed a new American*. Chicago, IL: The University of Chicago Press.
- Murray, M. P. (1992). Census adjustment and the distribution of federal spending. *Demography*, 29(3), 319. doi:10.2307/2061820
- NPR. (2018a, January 19). Commerce department’s administrative record for census citizenship question lawsuits. *NPR*. Retrieved from <https://apps.npr.org/documents/document.html?id=4500011-1-18-Cv-02921-Administrative-Record#document/p1289/a428453>
- NPR. (2018b, February 6). Page 3460 of administrative record for census citizenship question lawsuits. *NPR*. Retrieved from <https://apps.npr.org/documents/document.html>
- Nunes, F., & Melo, C. R. (2019). Impeachment, political crisis and democracy in Brazil. *Revista de Ciencia Política*, 37(2), 281–304.
- Observatório das Metrôpoles. (2019). Manifesto Observatório das Metrôpoles pela realização integral do Censo Demográfico de 2020.—*Observatório das Metrôpoles*. Retrieved from <https://www.observatoriodasmetropoles.net.br/manifesto-observatorio-das-metropoles-pela-realizacao-integral-do-censo-demografico-de-2020/>
- O Globo. (2019, May 1). Demissão de diretor de Pesquisa não foi motivada pelo censo, diz presidente do IBGE. *O Globo*. Retrieved from <https://oglobo.globo.com/economia/demissao-de-diretor-de-pesquisa-nao-foi-motivada-pelo-censo-diz-presidente-do-ibge-23646382>
- Parana Cooperativo. (2019, June 7). *Entrevista: IBGE mira melhora de dados após acordo tecnológico com BID*. Retrieved from <http://paracooperativo.coop.br/ppc/>

- index.php/sistema-ocepar/comunicacao/2011-12-07-11-06-29/ultimas-noticias/122748-entrevista-ibge-mira-melhora-de-dados-apos-acordo-tecnologico-com-bid
- Porter, T. M. (1996). *Trust in numbers: The pursuit of objectivity in science and public life*. Princeton, NJ: Princeton University Press.
- Porter, T. M. (2011). *The rise of statistical thinking: 1820–1900*. Princeton, NJ: Princeton University Press.
- Presidencia de la República del Ecuador. (2007). *Decreto Adscripcion INEC a Presidencia de Republica*. Retrieved from <https://www.ecuadorencifras.gob.ec/wp-content/descargas/%20Informacion-Legal/Normas-de-Creacion/Decreto-Ejecutivo-de-Creacion/Decreto+Ejecutivo+No.+490-Adscripcion+del+INEC+a+SENPLADES.pdf>
- Prévost, J.-G. (2019). Politics and policies of statistical independence. In M. J. Prutsch (Ed.), *Science, numbers and politics* (pp. 153–180). Cham, Switzerland: Springer. doi:10.1007/978-3-030-11208-0\_8
- Prewitt, K. (2003). *Politics and science in census taking* (Reprinted in *The American People: Census 2000* ed. R. Farley and J. Haaga). New York, NY: Russell Sage Foundation.
- Prewitt, K. (2010a). The U.S. decennial census: Politics and political science. *Annual Review of Political Science*, 13(1), 237–254. doi:10.1146/annurev.polisci.031108.095600
- Prewitt, K. (2010b). What is political interference in federal statistics? *The ANNALS of the American Academy of Political and Social Science*, 631(1), 225–238. doi:10.1177/0002716210373737
- Retherford, R. D., Cho, L.-J., & Kim, N. (1984). Census-derived estimates of fertility by duration since first marriage in the Republic of Korea. *Demography*, 21(4), 537. doi:10.2307/2060914
- Rodríguez-Muñiz, M. (2017). Cultivating consent: Nonstate leaders and the orchestration of state legibility. *American Journal of Sociology*, 123(2), 385–425. doi:10.1086/693045
- Roseth, B., Reyes, A., & Yee Amézaga, K. (2019). *The value of official statistics* (Technical Note IDB-TN-1682). Interamerican Development Bank. Retrieved from [https://publications.iadb.org/publications/english/document/The\\_Value\\_of\\_Official\\_Statistics\\_Lessons\\_from\\_Intergovernmental\\_Transfers\\_en.pdf](https://publications.iadb.org/publications/english/document/The_Value_of_Official_Statistics_Lessons_from_Intergovernmental_Transfers_en.pdf)
- Rossi, A. (2019, August 4). O que revelavam sobre os brasileiros as perguntas que serão cortadas do Censo 2020 do IBGE. *BBC News Brasil*. Retrieved from <https://www.bbc.com/portuguese/brasil-48931662>
- Rottenburg, R., Merry, S. E., Park, S., & Mugler, J. (Eds.). (2015). *The world of indicators: The making of governmental knowledge through quantification*. Cambridge, England: Cambridge University Press.
- Ruggles, S., & Magnuson, D. L. (2020). Census technology, politics, and institutional change, 1790–2020. *Journal of American History*, 107(1), 19–51. doi:10.1093/jahist/jaaa007
- Saetnan, A. R., Lomell, H. M., & Hammer, S. (Eds.). (2012). *The mutual construction of statistics and society*. New York, NY: Routledge.
- Salgado, W. (2019, October 14). Ecuador: Society's reaction to IMF Austerity package. *NACLA*. Retrieved from <https://nacla.org/news/2019/10/14/ecuador-societys-reaction-imf-austerity-package-indigenous>
- Schweber, L. (2006). *Disciplining statistics: Demography and vital statistics in France and England, 1830/1885*. Durham, NC: Duke University Press.
- SECOM. (2016, February 5). Discurso Presidente Correa Lanzamiento Pobreza Multidimensional. *Youtube*. Retrieved from <https://www.youtube.com/watch?v=frSEhyoNG-g>
- Senado Noticias. (2019, August 16). CDH vai discutir cortes no Censo 2020. *Senado Federal*. Retrieved from <https://www12.senado.leg.br/noticias/materias/2019/08/16/cdh-vai-discutir-cortes-no-censo-2020>



- Simon, J. L. (2019). *The economics of population growth*. Princeton, NJ: Princeton University Press.
- Singer, E., Van Hoewyk, J., & Neugebauer, R. J. (2003). Attitudes and behavior. *Public Opinion Quarterly*, 67(3), 368–384. doi:10.1086/377465
- Spencer, B. D., May, J., Kenyon, S., & Seeskin, Z. (2017). Cost-benefit analysis for a quinquennial census: The 2016 population census of South Africa. *Journal of Official Statistics*, 33(1), 249–274. doi:10.1515/jos-2017-0013
- Starr, P. (1987). The sociology of official statistics. In W. Alonso & P. Starr (Eds.), *Politics of numbers* (pp. 7–58). New York, NY: Russell Sage Foundation.
- Sullivan, T. A. (2020). *Census 2020 understanding the issues*. Cham, Switzerland: Springer. Retrieved from <https://link.springer.com/10.1007/978-3-030-40578-6>
- Sweetland, H. (2017, May 12). The head of the census resigned. It could be as serious as James Comey. *Time*. Retrieved from <https://time.com/4774288/census-bureau-john-thompson-resigned/>
- United Nations. (Ed.) (2008). *Principles and recommendations for population and housing censuses (Rev. 2)*. Department of Economic and Social Affairs, Statistics Division. United Nations.
- US Census Bureau. (2019). *Timeline census history*. Retrieved from [https://www.census.gov/history/img/timeline\\_census\\_history.bmp](https://www.census.gov/history/img/timeline_census_history.bmp)
- Vanella, P., Deschermeier, P., & Wilke, C. B. (2020). An overview of population projections—Methodological concepts, international data availability, and use cases. *Forecasting*, 2(3), 346–363.
- Villacís, B. (2014, October 28). Lo adecuado de lo ilegal: Errores del INEC en torno al nuevo subempleo. *El Universo*. Retrieved from <https://www.eluniverso.com/opinion/2014/10/28/nota/4158746/adecuado-ilegal-errores-inec-torno-nuevo-subempleo>
- Villacís, B. (2016a, July 24). *Nuevos cambios de metodología de empleo*. Retrieved from <https://byronvillacis.files.wordpress.com/2016/07/cambios-de-inec-julio-2016.pdf>
- Villacís, B. (2016b, July 24). *Sobre los nuevos cambios del INEC en las categorías de empleo*. Retrieved from <https://byronvillacis.org/2016/07/24/sobre-los-nuevos-cambios-del-inec-en-las-categorias-de-empleo/>
- Villacís, B. (2019, February 3). Advertencia sobre indicadores de empleo y pobreza del Ecuador. *El Universo*. Retrieved from <https://www.eluniverso.com/opinion/2019/02/03/nota/7168895/advertencia-sobre-indicadores-empleo-pobreza-ecuador>
- Villacís, B. (2020, January 17). Los mestizos y el censo de población del 2020. *El Universo*. Retrieved from <https://www.eluniverso.com/opinion/2020/01/17/nota/7693956/mestizos-censo-poblacion-2020>
- Villacís, B. (2021). Experticia estadística en la administración pública ecuatoriana: Mecanismos de emergencia y legitimación. *Íconos*, 71, 81–102. doi:10.17141/iconos.71.2021.4841
- Villacís, B., Thiel, A., Capistrano, D., & da Silva, C. C. (2022). Statistical innovation in the global south: Mechanisms of translation in censuses of Brazil, Ecuador, Ghana and Sierra Leone. *Comparative Sociology*, 21(4), 419–446. doi:10.1163/15691330-bja10060
- Villacís, B., & Thome, D. (2020). Gender politics in Latin American censuses: The case of Brazil and Ecuador. In M. T. Segal, K. Kelly, & V. Demos (Eds.), *Gender and practice: Knowledge, policy, organizations* (Advances in Gender Research 28, pp. 119–140). Bingley, England: Emerald Publishing.
- Voutilainen, M., Helske, J., & Högmänder, H. (2020). A Bayesian reconstruction of a historical population in Finland, 1647–1850. *Demography*, 57(3), 1171–1192. doi:10.1007/s13524-020-00889-1

- West, K. K., & Fein, D. J. (1990). Census undercount: An historical and contemporary sociological issue. *Sociological Inquiry*, 60(2), 127–141. doi:10.1111/j.1475-682X.1990.tb00134.x
- Weyl, B. (2012, June 16). No more questions: Census irks republicans. *CQ*. Retrieved from <http://public.cq.com/docs/weeklyreport/weeklyreport-000004107499.html>
- Williams, T. (2019, June 27). What you need to know about the census citizenship question. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/06/27/us/citizenship-question-census.html>
- Wines, M. (2019, May 30). Deceased G.O.P. strategist's hard drives reveal new details on the census citizenship question. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/05/30/us/census-citizenship-question-hofeller.html>
- Wines, M. (2020, April 13). Knocked off track by Coronavirus, census announces delay in 2020 count. *The New York Times*. Retrieved from <https://www.nytimes.com/2020/04/13/us/census-coronavirus-delay.html>
- Wines, M., & Benner, K. (2019, July 9). Judge rejects Justice Dept. request to change lawyers on census case. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/07/09/us/census-citizenship-question.html>
- Wire, S. (2019, March 14). Democrats confront Commerce Secretary Ross, saying he lied about census question. *Los Angeles Times*. Retrieved from <https://www.latimes.com/politics/la-na-pol-census-hearing-citizenship-question-wilbur-ross-20190314-story.html>