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**Elusive Numbers.  
State Knowledge and Bureaucratic Organization in Chile (1750-1911)**

A Dissertation Presented

by

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This dissertation explores the trajectory of the Chilean State's statistical projects from the mid-eighteenth century to the beginning of the twentieth century. It begins in a moment when the scientific concerns of the Enlightenment dovetailed with the State's demand for knowledge after the dissolution of the Spanish Empire. It analyzes the construction of a specialized bureaucracy entrusted with the mission of producing the statistical information the Chilean State required for effective government. Due to the relational and spatial implications of producing official numbers, these inquiries opened up permanent spaces of interaction between the central institutions and the administrative peripheries of the State. The creation of a network of provincial bureaucrats responsible for collecting and processing information, by mid-nineteenth century, was a crucial step in the institutionalization of these relationships.

The forging of a differentiated bureaucracy existed alongside grey zones that proved the limits of the State's capacity to produce reliable knowledge. Institutional limitations and conflictive relationships with the people they sought to count proved obstacles to this process. Dramatic territorial and political changes derived from international wars, internal political conflicts, and economic modernization further complicated that scenario toward the end of the nineteenth century. All this rendered the first State statistical project obsolete, giving way to an institutional crisis only solved by means of radical reorganization.

This dissertation studies this trajectory, tracing the assimilation of statistics and the territorial anchoring of the State as parallel and correlative processes. Statistics is thus understood not as a "tool" at the service of a State already formed and fully qualified to use it, but a field whose concrete configuration takes place as part of the formation of that very State. In understanding the administrative complexities that conditioned the production of official numbers in Chile over the nineteenth century, this study contributes to elucidating the links between knowledge and bureaucratic organization to the infrastructural power of the State.

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## List of Abbreviations

<i>AERCh</i> :	Anuario Estadístico de la República de Chile (Statistical Yearbook of the Republic of Chile)
AN:	Archivo Nacional de Chile (National Archive of Chile)
ARNAD:	Archivo Nacional de la Administración, Chile (National Archive of the Administration)
MINT:	Ministerio del Interior (Ministry of Interior)
MINEDU:	Ministerio de Educación (Ministry of Education)
SCL:	Sesiones de los Cuerpos Legislativos de la República de Chile (Legislative Bodies of the Republic of Chile Sessions)
SCN:	Sesiones del Congreso Nacional (National Congress Sessions)
SNA:	Sociedad Nacional de Agricultura (National Society of Agriculture)
SOFOFA:	Sociedad de Fomento Fabril (Society of Industrial Development)
SONAMI:	Sociedad Nacional de Minería (National Mining Society)
doc.:	document
f.:	folio (sheet)
ff.:	folios (sheets)
no.:	number
p.:	page
pp.:	pages
\$:	Chilean pesos



## Introduction

“My Dear Knight:

Indeed there is no fear of my thinking you the owner of a cold heart [...]. My satire is against those who see figures and averages, and nothing else –the representatives of the wickedest and most enormous vice of this time– the men who, through long years to come, will do more to damage the real useful truths of political economy, than I could do (if I tried) in my whole life”

Charles Dickens to Charles Knight, 1854<sup>1</sup>

Literary critic Ángel Rama argued that Latin American States were built on letters and that it was a colonial heritage. This is what he called the *lettered city*, that inspiring image in which he linked the phenomenon of urbanization and the problem of power with the ubiquity of the written word<sup>2</sup>. It is an effective metaphor and it makes full sense if one thinks of the republican ideal, its civilizing components and the normative image of the modern citizen, a literate subject that thanks to letters participates actively in the construction of his political community. It is less common, however, to hear that these republics were also built on numbers. Actually, few interpretations consider the numerization of political discussions as another crucial front in the construction of the post-independence orders. How important was numerical information in the forging of these new entities? What place, if any, had the production of official numbers in the institutional trajectories that enabled the consolidation of the new Latin American States over the nineteenth century?

Statistics was a key discipline for the incorporation of numerical language into the debates that framed the construction of this new order. At the time of Independence, its status of indispensable knowledge for State action made it deserving of an indisputable place in the institutional choreography of the nascent republics. The idea, however, was not entirely novel. From the *Conquista* onward, the Spanish Crown and the Catholic Church were concerned to

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<sup>1</sup> Charles Dickens to Charles Knight, Tavistock House, January 30, 1854, in *The Letters of Charles Dickens. Vol. 1, 1833-1856* (New York: Charles Scribner's Son, 1879), pp. 408-409.

<sup>2</sup> Ángel Rama, *The Lettered City* (Durham: Duke University Press, 1996 [1984, Spanish]).

produce ambitious inventories of the material and human resources existing in the New World<sup>3</sup>. Going back further, the *quipus* of the Inca Empire emerge as the most sophisticated local precedents of this type of knowledge<sup>4</sup>. While none of these experiences would qualify as a direct antecedent of modern statistics, they do represent early efforts of enumeration –of facts and objects– carried out by political structures with high levels of institutionalization. But only toward the second half of the eighteenth century, under the influence of the Enlightenment and the Bourbon Reforms, this type of research began to take the form that would eventually result in the contemporary profile of this science. It is true that a few links were still missing for witnessing the emergence of standardized research programs or the establishment of complex information and registration systems entrusted to specialized bureaucracies. But in those enlightened efforts the first ideas began to take shape. Statistics was an innovation as well as a constituent element of the modern State.

The increasing requirements of demographic, economic and fiscal information on the part of the Spanish Empire imposed the assimilation of protocols and administrative routines in which a large number of Creole bureaucrats were trained. After the collapse of the imperial order in 1808-1810, that same generation led the efforts to produce equivalent knowledge under the auspices of the new republics. The need to know in detail the material resources available and to determine the total population scattered throughout the territories –crucial for the acclimatization of that political novelty called the “principle of representation”– was the basis of the first attempts to institutionalize the production of this knowledge. This transit, of course, was not free from setbacks. The complex scenario left by the Independence wars, the lack of material resources, conflicts on the physiognomy the new States had to adopt, and the lack of basic knowledge about this science among the nascent bureaucracies counted among the first difficulties the reception of modern statistics had to face. However, no country renounced these objectives and despite the shortcomings in constituting specialized offices, the statistical promise maintained its force and claimed its place within the republican institutional horizon<sup>5</sup>.

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<sup>3</sup> Francisco de Solano (ed.), *Cuestionarios para la formación de relaciones geográficas de Indias, siglos XVI/XIX* (Madrid: Consejo Superior de Investigaciones Científicas, Centro de Estudios Históricos, Departamento de Historia de América, 1988).

<sup>4</sup> Jeffrey Quilter and Gary Urton (eds.), *Narrative Threads. Accounting and Recounting in Andean Khipu* (Austin: University of Texas Press, 2002); Frank Salomon, *The Cord Keepers. Khipus and Cultural Life in a Peruvian Village* (Durham and London: Duke University Press, 2004).

<sup>5</sup> The Peruvian case is a good example of the impact of the obstacles that delayed but did not deactivate the statistical agenda. After conducting numerous proto-statistical research during the late Colonial period, it had to wait

This dissertation explores the trajectory of Chile's first State statistical project in a timeframe that ranges from the mid-eighteenth century to the first decade of the twentieth century. The choice of starting from the Colonial period responds to the realization that this project, formally organized in the 1840s, cannot be understood without considering the influence of the Spanish Empire's research programs. Such legacy, inscribed in the narrative logic of the colonial "topographical descriptions," was key in the deployment of the investigations that preceded the establishment of the first Statistics Office in 1843. The organization of a specialized institution marks a new period in this trajectory. Out of it emerged a permanent research program entrusted to a nascent national network of surveyors, closely dependent on provincial bureaucracies. Compliance with such program and coordination of such network would constitute the primary objectives of the Office, whose researches became the main instrument for measuring the changes experienced by the country due to the consolidation of the State and the effects of global capitalism from the 1860s onward. Paradoxically, these very transformations ended up decreeing the obsolescence of the nineteenth-century statistical project. In a matter of decades, the system proved inadequate to record the pulse of a national reality that toward the last quarter of the century seemed to move faster than its institutions. Such a gap created a process of fragmentation and crisis that will be the prelude to a radical reorganization of the statistical service in 1911.

Following this trajectory, the dissertation aims to answer a specific question: how was statistical knowledge produced in nineteenth-century Chile and what impact did it have on the physiognomy of the State? I argue that the specialized bureaucracy that emerged out from the Statistics Office had a crucial role both in consolidating the State presence throughout the Chilean territory and enabling the acclimatization of statistics. Due to the relational and spatial nature of this type of research, the regular production of statistical knowledge was a practice that opened up permanent spaces of interaction between the central institutions and the administrative

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until the second half of the nineteenth century to regain that rhythm. In this regard, see as complementary approaches the works by José Ragas, "Ideólogos del Leviatán. Estadística y sociedad en el Perú (1791-1876)," in Carlos Aguirre and Carmen McEvoy (eds.), *Intelectuales y poder. Ensayos en torno a la república de las letras en el Perú e Hispanoamérica (ss. XVI-XX)* (Lima: Instituto Francés de Estudios Andinos: Instituto Riva Agüero, 2008), pp. 151-172 (recently republished in *Estudios Sociales del Estado* 4, no. 2, 2016); Paul Gootenberg, "Población y etnicidad en el Perú republicano. Algunas revisiones," Lima, Instituto de Estudios Peruanos, Working Paper No. 71 (1995); Vincent Peloso and José Ragas, "Estadísticas y sociedad en el Perú poscolonial: el desconocido censo de Lima de 1860," *Histórica* 25, no. 2 (2001): 275-293; Gabriella Chiaramonti, "Buscando el 'ciudadano' virtuoso. El censo peruano de 1876 en el proyecto político de Manuel Pardo," in Marcello Carmagnani (coord.), *Constitucionalismo y orden liberal: América Latina, 1850-1920* (Torino: Otto editore, 2000), pp. 9-50.

peripheries of the Chilean State. To this end, it was essential to create a network of provincial bureaucrats responsible for collecting and processing the information the central State demanded for the administration of public affairs. To understand the dynamics of these interactions, this research combines a State-centered approach (reviewing the laws and decrees that organized the service) with a local-level analysis of how such measures were implemented in the basic units of the administrative chain. It should be noted that this approach does not propose, nor can it offer, a scientific evaluation of the quality of the numerical information collected by the Statistics Office, which would certainly be appreciated by professional statisticians or cliometric historians. Nonetheless, it gathers valuable clues for understanding the administrative complexities that conditioned the production of official numbers in Chile over the nineteenth century, thus contributing to elucidating the links between State knowledge, bureaucratic organization and the State's territorial anchoring.

But that response is accompanied by a nuance, which derives from the details of the daily interaction between the Statistics Office and the provincial units. This is what can be synthesized in the idea of *elusive numbers* inserted in the title<sup>6</sup>. From the naturalization of the binomial knowledge-power, which seems coterminous with the consolidation of the modern State, the State capacity to discipline population and tame reality through statistics has tended to be taken for granted<sup>7</sup>. Although this dissertation does not pretend to relativize such capacity, it seems necessary to calibrate the real scope of the State capability to “see and classify” with the clarity that is presumed in that binomial. The various problems that conditioned the consolidation of the statistical machinery in Chile –analyzed in detail in this work– speak both of the limited scope of these “devices” of State domination and of the various strategies that very State had to implement to support and project the fiction derived from the deployment of that power. This does not imply, of course, circumventing the State's enormous discursive and reflexive ability to describe, classify, and categorize its citizens and resources. Population censuses, statistical reports and all the numerical documentation produced by this division confirm such capacity. But this image cannot lead us to ignore the permanent fragility of the institution that produced

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<sup>6</sup> The concept “elusive numbers” can be understood as the statistical equivalent of the idea of “fugitive landscapes” coined by Raymond B. Craib in his study of the cartographic production in the State of Veracruz (Mexico) between the late nineteenth and early twentieth centuries. See his *Cartographic Mexico. A History of State Fixations and Fugitive Landscapes* (Durham and London: Duke University Press, 2004).

<sup>7</sup> For a questioning of the assumptions in the relationship between knowledge and power, based on a detailed ethnography of the Dutch colonial archive, Ann Laura Stoler, *Along the Archival Grain. Epistemic Anxieties and Colonial Common Sense* (Princeton: Princeton University Press, 2009), pp. 19-53.

those scientific portraits or the recurring omissions and errors detected in the data collection processes. Nor should we disregard the bureaucratic frustrations at the impossibility of establishing a modern (impersonal, predictable, trustworthy) informational system; the recurrent threat of adulteration and falsification of official reports; the complex chain of transactions, negotiations and dependencies on which State research programs rested; and the population's long-held suspicion of the concrete objectives of these surveys. In sum, the study of the territorial deployment of the Chilean statistical machinery is not but an invitation to properly consider the complex and never unidirectional State-citizenry relationship. This involves tracing the practical limits of the machinery of State knowledge and the irreducibility of citizenship to standardization.

The elusive character I attribute to official numbers starts from such finding. But this in no way implies overlooking the institutional energy invested in the formation and administration of monumental databases that –with all their limitations– allowed to explain social change and understand the mutations of increasingly heterogeneous social realities, most of the time indifferent to these early attempts at standardization. Given the technological conditions of the period, the forging of this informational patrimony was tied to the configuration of territorially ubiquitous bureaucracies specialized in firsthand information gathering, always as part of *in situ* and person-to-person operations. The basic units of political organization produced real “avalanches of numbers” flowing to the center, where they were merged into process of abstraction that gave way to the production of provincial and national statistical summaries then circulated through printing culture<sup>8</sup>. Hence the importance of empirically tracking the functioning of the protocols for information gathering at the different levels of the administrative chain, from the smallest territorial unit to the central office desks where the statistical figures were tabulated. The exploration of the institutional and human architecture that supported the production of this State knowledge offers a way of accessing the backbone of one of the main capacities of the modern State, that of generating inputs to understand and govern social reality.

If such an approach has any value, it is to show the material limits of those efforts, how effective they were in their purposes, and what kinds of strategies the State had to set in motion to ward off the sinking of a project of this magnitude. It should be noted that this analysis is far

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<sup>8</sup> An important study on the links between administrative knowledge and printed culture is Oz Frankel, *States of Inquiry. Social Investigations and Print Culture in Nineteenth-Century Britain and the United States* (Baltimore: The John Hopkins University Press, 2006).

from a lofty relativization of statistical knowledge based on the flawed procedures that might have affected it. Neither is it intended to question the usefulness of this data, which in some cases is all that is left for the study of the past. On the contrary, the aim is to understand the production of that information as accurately as possible, paying attention to the frictions that conditioned it and without losing sight of its progresses and achievements. In short, rather than disregarding the quality of the local statistical production, which certainly impacts on its recognition as a reliable historical source, this research allows us to recognize its virtues and limitations, clarifying what we can expect and what not in using it in our efforts for rendering the past intelligible.

Some notes on historiography and the Chilean case

The previous reflection establishes a certain distance, although not a total estrangement, from the approximations located in the field of “governmentality” studies<sup>9</sup>. Based on the assumption that no effective government is possible without some degree of knowledge of the “things” of the State, and that such knowledge to a large extent defines both the practices of the State and the specific form of its historical intervention, this approximation considers statistics as a tool that extends and refines State power over population and territory. Consequently, in the midst of the connections between scientific knowledge and institutional power statistics appears as an instrument for political centralization and social homogenization. Although this research reinforces the centrality of the State as a political actor and recognizes in statistics one of the links in the centralization of power, it does so by trying to go beyond the hierarchical, unidirectional and at times narrowly functional views on statistics. These pages propose an analysis that evaluates the interests and the organizing function of the State in light of the interventions of other actors, such as provincial bureaucrats, local authorities and the population. In other words, the study explores the spaces of interaction between the central State and groups commonly portrayed as its intermediaries (that would be the case of provincial bureaucrats and local authorities) or as mere subjects of statistical practice (the case of the population). This should not be confused with an effort to rehabilitate an alleged “agency” of these actors or to

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<sup>9</sup> See Michel Foucault, “Governmentality,” in Graham Burchell, Colin Gordon and Peter Miller (eds.), *The Foucault Effect. Studies in Governmentality* (Chicago: The University of Chicago Press, 1991), pp. 87-104; also his *Security, Territory, Population. Lectures at the Collège de France, 1977-1978* (New York: Picador, 2007), particularly chapter 10, pp. 255-283.

fetishize this “interaction” in favor of a “society-centered” interpretation –understood as a counterweight to the “state-centered” approach– of the production of statistics<sup>10</sup>. Far from it, this option simply responds to the interest of understanding statistics as a relational and spatially situated State knowledge, whose social and political ramifications rest on the dialogical and territorial nature of its production processes.

Because of the above mentioned, it is crucial for the analysis to trace the trajectory of the Chilean statistical system through a localized and processual understanding of the national territory. When the republican statistical project began its territorial deployment, it found dissimilar reactions from the administrative units, which were expression of the differentials in the penetration capacity of the State. Hence the pertinence of a localized understanding of the territory. As the chapters that analyze the functioning of the Statistics Office since 1843 will show, the responses from the provinces –their bureaucracies and their populations– were far from homogeneous and just as some administrative units attended promptly to the central State’s information demands, others exhibited varying degrees of resistance or open indifference to those requests. Recognizing these differentials is key to assessing what Mariano Ben Plotkin and Eduardo Zimmermann describe, referring to the Argentinian case, as “the complex and varied forms the links between the local powers and central one acquired during the consolidation of the latter”<sup>11</sup>. In so doing, we will be able to escape from the visions that relativize the obstacles that slowed down the process of expansion and consolidation of the national State, as well as from the views that reduce provinces to the condition of passive actors in that processes. This, as Ariel de la Fuente has suggested, does not imply rendering the national vision to the fetishism of local or regional particularities, but rather to understand national trajectories in their concrete interaction with minor administrative units<sup>12</sup>.

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<sup>10</sup> Two good examples of this type of interpretation which could be understood as attempts to “bringing society back in” are Ann Rudinov Saetnan, Heidi Mork Lomel, Svein Hammer (eds.), *The Mutual Construction of Statistics and Society* (New York: Routledge, 2011), and Rebecca Jean Emigh, Dylan Riley and Patricia Ahmed, *Antecedents of Censuses from Medieval to Nation States and Changes in Censuses from Imperialist to Welfare States* (New York: Palgrave Macmillan, 2016).

<sup>11</sup> Mariano Ben Plotkin and Eduardo Zimmermann, “Introducción. Saberes de Estado en la Argentina, siglos XIX y XX,” in *Los saberes del Estado* (Buenos Aires: Edhasa, 2012), p. 15.

<sup>12</sup> Ariel de la Fuente, *Children of Facundo. Caudillo and Gaucho Insurgency During the Argentine State Formation Process (La Rioja, 1853-1870)* (Durham: Duke University Press, 2000). On similar problems in the same country, Beatriz Bragoni and Eduardo Míguez (coords.), *Un nuevo orden político. Provincias y Estado nacional 1852-1880* (Buenos Aires: Biblos, 2010).

The processual understanding is connected with the particularities of Chilean territorial history. The country in which the first statistical institution was organized in the mid-1840s comprised a strip of just over 1,000 kilometers, from Copiapó's surroundings in the north to the border of the Biobío River in the south. That space was divided into nine provinces with still limited connectivity. The railway and telegraph networks were just developing, and cartography offered the first reliable portraits of the republican map. But in the middle of the nineteenth century that map began to transform with the beginning of State-sponsored programs of European colonization and the bureaucratic and military invasion of the Arauco territory. These were the first movements of a process of territorial expansion that experienced its most radical phase in the 1880s with the annexation of the Bolivian and Peruvian nitrate provinces after the War of the Pacific (1879-1884) and the consolidation of State presence in the insular Pacific. In less than three decades the national surface had practically doubled and the provinces, with their growing administrative apparatuses, now numbered 23, plus Magallanes, which had a different political status. It was common for contemporaries to point out that with these changes a "new Chile" had emerged. This vertiginous transformation of the "geographic body of the nation," following the expression of Thongchai Winichakul, soon proved the obsolescence of an institution organized for a radically different country<sup>13</sup>. Given these transformations, it is necessary to understand the trajectory of the Chilean statistical system in relation to a geographic scenario in which the State's infrastructural power anchored unequally and whose physiognomy changed radically, in a rapid pace, and with considerable administrative consequences. Hence the need to distance oneself from the fixed representations of both the State and the geographic scope of its power.

Due to the close relationship between statistics and the State, a high proportion of the bibliographic production related to the history of the discipline has been concentrated on the study of national cases, either individually or in comparative perspective. Although it does not apply to the whole, this line of analysis owes much to Benedict Anderson's seminal reflections on the role of statistics –particularly population censuses– in defining the boundaries as well as the social and ethnic identities that make up national "imagined communities"<sup>14</sup>. Studies in the

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<sup>13</sup> Thongchai Winichakul, *Siam Mapped. A History of the Geo-Body of a Nation* (Honolulu: University of Hawai'i Press, 1994).

<sup>14</sup> Benedict Anderson, *Imagined Communities. Reflections on the Origin and Spread of Nationalism* (London: Verso, 1991 [1983]), chapter 10.



last decades have tended to broaden and enrich such national approach, in some cases either linking it with or criticizing it from the governmentality perspective. They have allowed us to know new and problematic aspects of the statistical project in its formative era, such as its relationship with political liberalism, its role as an input for public health policies or urban reform programs, its impact on gender discourses and representations, and its contributions to national unification processes<sup>15</sup>. Apart from their contributions to the study of diverse statistical trajectories, these studies allow us to assess the immense plurality in the local receptions of this science<sup>16</sup>. Indeed, even when the international scientific movement promoted a uniform and neutral definition of statistics, the manner in which it was tamed varied in proportion to the plurality of political systems that received it. If nineteenth-century statistics was far from being a homogeneous scientific field, the institutional models that organized it at a national level exacerbated the diversity. The fact that Ernst Engel, director of the Statistics Office of Prussia, counted 180 different definitions of statistics in 1869 already shows the difficulty of stabilizing a definition within the field. An international comparative view indicates that such variability was accentuated by the unequal weight of the academic traditions statistics dialogued with in its different contexts of reception, the different levels of collaboration of non-state actors in the pre- and post-institutionalization phases, the nature of the political projects that incorporated it as administrative tools, and the divergent philosophies of government that organized and projected its research over time. All this, of course, amid widespread national self-assertion.

Such particularism is crucial for understanding the friction between the universal and homogenizing aspirations of the international statistical movement and the particular tendencies that sustained the consolidation of national States over the nineteenth century. As Nico Randeraad indicates in his study of the nine international congresses of the discipline held in Europe between 1853 and 1876, these tensions can be understood as an encounter between an

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<sup>15</sup> See, among others, Donald MacKenzie, *Statistics in Britain, 1865-1930: The Social Construction of Scientific Knowledge* (Edinburgh: Edinburgh University Press, 1981); Silvana Patriarca, *Writing Statistics in Nineteenth-Century Italy* (Cambridge: Cambridge University Press, 1996); Jean-Pierre Beaud and Jean-Guy Prévost, "La experiencia estadística canadiense," *Anuario IEHS* 14 (1999): 71-91; Joshua Cole, *The Power of Large Numbers. Population, Politics, and Gender in Nineteenth-Century France* (Ithaca and London: Cornell University Press, 2000); Patrick Joyce, *The Rule of Freedom. Liberalism and the Modern City* (London & New York: Verso, 2003); Susan Smith-Peter, "Defining the Russian People: Konstantin Arsen'ev and Russian Statistics Before 1861," *History of Science* 45 (2007): 47-64.

<sup>16</sup> A work that reflects the scope of this plurality is Libby Schweber, *Disciplining Statistics. Demography and Vital Statistics in France and England, 1830-1885* (Durham and London: Duke University Press, 2006), which explores the different approaches to population studies in each country from the specificity of their institutional contexts.

“imagined community” of cosmopolitan agents, committed to the ideals of scientific uniformity and neutrality, and multiple national “imagined communities” more interested in adjusting the development of statistics to the administrative needs of their political systems<sup>17</sup>. Of course, the recognition of the variability derived from these “national particularisms” does not mean giving up the identification of global trends or the understanding of the impacts international debates had on the trajectory of State statistics. Works such as that of Marc Ventresca, which traced the international influence –in scientific and institutional terms– on the consolidation of modern censuses in the nineteenth and twentieth centuries, or that of Mara Loveman, who did the same by analyzing how the relationship between the international system and Latin American States has defined how the latter classify and count their citizens, attest to the need to take into account the points of contact between the global and the national<sup>18</sup>. However, national experiences, when explored in detail, reaffirm the pertinence of taking into account the impact of local institutional and intellectual realities on the dynamics of that relationship.

In a previous section of this introduction I explained to what extent the taming of statistics during the nineteenth century seems closely tied to the process of territorial anchoring of the State. This was the framework that conditioned the interaction between Chilean statistical knowledge and the global trends and debates within the field. In Chile, statistics were assumed under an eminently administrative criterion, and this explains the absence of academic or theoretical reflections equivalent to the debates present in Europe regarding the organization of national statistical agencies or the discussions that took place at international congresses<sup>19</sup>. While in the European academic context the debates revolved around the mathematical condition of the

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<sup>17</sup> Nico Randeraad, *States and Statistics in the Nineteenth Century. Europe by Numbers* (Manchester and New York: Manchester University Press, 2010). In a later study the author elaborated on these tensions, describing how the absence of supranational faculties in a context of national self-assertion explain the relative sterility of the normalizing efforts by the European statistical movement. The only exceptions were some small and emergent States, such as Hungary and Greece, which tended to adopt the resolutions passed at international congresses. “The International Statistical Congresses (1853-1876). Knowledge Transfers and their Limits,” *European History Quarterly* 41, no. 1 (2011): 50-65.

<sup>18</sup> Marc Joseph Ventresca, “When States Count: Institutional and Political Dynamics in Modern Census Establishment, 1800-1993,” Ph.D. Thesis, Stanford University, 1995; Mara Loveman, *National Colors. Racial Classification and the State in Latin America* (New York: Oxford University Press, 2014); for another approach of globalizing inspiration, Jean-Guy Prévost and Jean-Pierre Beaud, *Statistics, Public Debates and the State, 1800-1945. A Social, Political, and Intellectual History of Numbers* (London and New York: Routledge, 2016 [2012]).

<sup>19</sup> Perhaps the only exceptions are the thesis by Manuel Salustio Fernández submitted to the Faculty of Mathematical Sciences at the University of Chile, “Aplicación de las probabilidades a la estadística,” *Anales de la Universidad de Chile* 8 (1851), pp. 281-301, and Manuel Antonio Matta’s extensive review of one of the most influential statistical treatises of the mid-nineteenth century: “Elementos de estadística. Obra escrita en francés por A. Moreau de Jonnés,” *Revista de Santiago*, vol. I, May 1855, pp. 228-236.

discipline and the philosophical consequences of quantifying reality, in Chile statistics was treated as merely instrumental knowledge that adjusted the meaning and guaranteed the effectiveness of the political-administrative measures. It is revealing that only at the beginning of the twentieth century (almost seven decades after the organization of the Statistics Office) one can find the first official initiative to hire a foreign specialist with the mission of professionalizing the statistical service by training government officials and forming new generations of native statisticians. But until then –that is to say throughout the nineteenth century– the statistical institution was integrated and led by people trained as lawyers or public administrators. If we only focus on the executive positions, those who served as heads of the Office had a rather general and unsystematic knowledge of the statistical science, which was compensated by considerable experience in State affairs<sup>20</sup>. At the medium and low bureaucratic levels the situation was not so different. Although at different times the State commissioned young Chilean professionals to visit the main European statistical offices to obtain first-hand knowledge that would serve to reform the local service, the impact of these initiatives was almost nil<sup>21</sup>. Furthermore, engineering students at the University of Chile, who were frequently recruited as auxiliaries to the Statistics Office, especially during post-census work, failed to climb or show little interest in following this bureaucratic career –despite their familiarity with mathematics and statistical inference. It is no coincidence that the first specialist in leading the Office, the French engineer Francisco de Bèze, came to the post only in 1909.

However, both the Chilean State and the Statistics Office showed a permanent interest in linking the local statistical work with the international development of the discipline. In the mid-nineteenth century, for example, the purchase of twenty copies of the translation of Alexandre Moreau de Jonnès's famous treatise, *Éléments de Statistique* (1847), was ordered to be distributed in all intendancies with the aim of adjusting the data collection procedures to the

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<sup>20</sup> A fact that partly qualifies this description is that at least two of them, José Miguel de la Barra (1847-1851) and Francisco Solano Astaburuaga (1876-1888), held memberships in international statistical societies. De la Barra was a member of the French Society of Universal Statistics and Astaburuaga of the American Geographical and Statistical Society of New York.

<sup>21</sup> Among the commissioners were the well-known radical thinker Francisco Bilbao, who was hired by the Statistics Office in 1849 to study the French statistical service while residing in Paris. Although his report was never submitted, on his return to Chile he joined the staff of the Statistics Office. Also Wenceslao Vial, who also resided in France for a couple of years in the early 1850s working as a student-assistant for Alexandre Moreau de Jonnès, former Director of the French Statistics Office and one of the most influential voices in the field. Like Bilbao, Vial ended up joining the Chilean Statistics Office. Later, in 1884, the State ordered Nemesio Vicuña to produce a study of the statistical systems of Europe and the United States.

latest findings in the statistical field. It would be necessary to add, regardless of their impact, some of the aforementioned visiting programs to European institutions, some of which generated reports that were promptly published in the press along with texts that dealt with the state of statistical science in general and the experiences of institutionalization in different latitudes<sup>22</sup>. Especially since the 1860s, the links between Chilean and global statistics strengthened thanks to the signing of agreements on bibliographic exchange and cooperation between the local office and its counterparts in Europe and the United States. This not only forced the refinement of Chile's production through the adoption of international scientific standards (key to comply with the principle of comparability), but also made it visible to international scientific networks. There are also traces of some concern with statistics at higher education level in the early twentieth century, at least in the form of introductory courses taught at law and commercial schools.

Latin American historiography has also tended to focus on the study of national cases. The best-known experiences are the Mexican, Argentine and Brazilian ones, which feature numerous monographs referring to the organizational stages of their respective statistical systems. As expected, almost all these approaches deal with the State formation process or the national discourse<sup>23</sup>. This emphasis, predominant among the studies referring to the nineteenth

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<sup>22</sup> The role of the press, which is analyzed in detail in Chapter 1, was crucial in the context prior to the organization of the Statistics Office. Key to this connection was the Venezuelan Andrés Bello, who officiated as a translator of important articles describing the development of statistics around the world. One could say that it is due to him that Alexandre Moreau de Jonnès ended up being more influential in Chile than Alphonse Quetelet, probably the most important statistician of the nineteenth century. Another relevant text reproduced by the Chilean press, this time during the phase of local statistical institutionalization, was a report by Juan Bautista Trupita and José Magaz, members of an expedition ordered by the Spanish statistician Pascual Madoz at the beginning of the 1840s for reforming the service of their country. This was the first detailed description known in Chile on the organization of the statistics offices of France and Belgium. Juan Bautista Trupita and José Magaz, "Apuntes sobre estadística," *El Progreso*, Santiago, September 13, 18, 23 and 24, 1845. The same fate met the report by the aforementioned Wenceslao Vial, published under the title "Estudios de estadística oficial" in *El Araucano*, Santiago, February 14 and 28, 1852.

<sup>23</sup> On Mexico, Leticia Meyer, *Entre el infierno de una realidad y el cielo de un imaginario. Estadística y comunidad científica en México de la primera mitad del siglo XIX* (México: El Colegio de México, Centro de Estudios Históricos, 1999); Sergio de la Peña and James Wilkie, *La estadística económica en México. Los orígenes* (México D.F.: Siglo XXI Editores, 1994); Luis Alberto Arrijo Díaz Viruell (ed.), *Registrar e imaginar la nación: la estadística durante la primera mitad del siglo XIX* (Zamora: El Colegio de Michoacán, 2016). On Argentina, Hernán Otero, *Estadística y nación. Una historia conceptual del pensamiento censal de la Argentina moderna 1869-1914* (Buenos Aires: Prometeo Libros, 2006) and Hernán González Bollo, *La fábrica de las cifras oficiales del Estado argentino (1869-1947)* (Bernal: Universidad Nacional de Quilmes, 2014). About Brazil, the works by Nelson de Castro Senra are indispensable, in particular his *História das estatísticas brasileiras* (Rio de Janeiro: Instituto Brasileiro de Geografia e Estatística, 2006-2009), 4 vols.; also, Mara Loveman, "The Race to Progress: Census-Taking and Nation-Making in Brazil, 1870-1920," *Hispanic American Historical Review* 89, no. 3 (2009): 435-470. Regarding other cases, like Peru, see footnote 5; the bibliography on Chile is discussed in Chapter 1.

century, has a close relation with what Jesús Bustamante identified as the hegemonic tradition in the development of statistics in Spanish America. Distant from the statistical model proposed by Alphonse Quetelet, with strong mathematical roots and focused on the calculation of probabilities, Spanish-speaking countries privileged the qualitative tradition of this science. Even though they shared the obsession for accumulating numbers and generating tables, these polities were more attuned with the model of the old censuses and Colonial descriptions, with a strong narrative leaning and in harmony with the analytical concerns of the traditional political economy<sup>24</sup>. Even their information-gathering systems, where figures were as important as geographic and social narrations, can be seen as deferred and transplanted expressions of the encyclopedic description style fostered by the Enlightenment<sup>25</sup>. That model reinforced the strong identification between statistics and the State, crucial in the era of organization of the first specialized offices. Thus the statistical language –in particular its qualitative side– served as source of national self-assertion and definition of sovereignty.

Unsurprisingly, Latin American historiography is still focused on tracing the trajectory of the institutional projects that enabled the incorporation of statistics into the cognitive arsenal of the new States. This linkage allows us to introduce another problem addressed in this study and which refers to the contribution of this science to the consolidation of State power. As Claudio Lomnitz suggested for the Mexican case, one of the main challenges the Latin American republics faced was to challenge the Catholic Church historic monopoly on vital records<sup>26</sup>. This was a long conflict whose expression in the Chilean case occurred in the second half of the nineteenth century, precisely when the State bureaucracy had enough strength to defy the Church and assume control of such records<sup>27</sup>. This challenge took the form of the forging of a State informational monopoly that dismantled the centuries-long power of parish priests as demographic agents.

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<sup>24</sup> See Jesús Bustamante, “¿Estadística o censo? La probabilidad como una cuestión política y moral,” in Jesús Bustamante, Laura Giraudo and Leticia Mayer, *La novedad estadística. Cuantificar, cualificar y transformar las poblaciones en Europa y América Latina, siglos XIX y XX* (Madrid: Ediciones Polifemo, 2014), pp. 47-50.

<sup>25</sup> Laura Cházaro, “Imágenes de la población mexicana: descripciones, frecuencias y cálculos estadísticos,” *Relaciones. Estudios de historia y sociedad* 22, no. 88 (2001): 15-48.

<sup>26</sup> Claudio Lomnitz, “El censo y la transformación de la esfera pública,” in *Modernidad Indiana. Nueve ensayos sobre nación y mediación en México* (México D.F.: Planeta, 1999).

<sup>27</sup> Sol Serrano, *¿Qué hacer con Dios en la República? Política y secularización en Chile (1845-1885)* (Santiago: Fondo de Cultura Económica, 2008).

To understand the configuration of this informational monopoly, it is necessary to consider statistics as part of a wider repertoire of knowledge and practices whose exclusive control is fundamental for the consolidation of the State. Following Pierre Bourdieu, the State appears as the point of convergence of a concentration process of different and interdependent forms of capital: the capital of the instruments of coercion, economic capital, symbolic capital, and also informational capital. The idea of informational capital alludes to all kinds of knowledge the State produces and appropriates, to the instruments and codes employed to concentrate, process and disseminate information, and also to the institutions through which the State preserves that knowledge. It includes population censuses, statistical reports and national accounts, the production of maps and cartographic collections, the generation of administrative protocols that normalize relations between offices and officers, publication programs directly and indirectly supported by the State, as well as the archives and documentary collections that depend on it. Controlling this knowledge is not only useful to government tasks, but also to the reproduction of bureaucratic bodies in charge of administering such capital<sup>28</sup>.

As one can intuit, our approach is far from evaluating this process with a suspicious glance, as approaches emphatic with anything that escape from standardization efforts or remain tied to custom do<sup>29</sup>. The idea of forging a State informational monopoly is evaluated as an inescapable passage in the relationship explored here. This does not imply fetishizing this State achievement as a manifestation of a complete and institutionally coherent consolidation. One of the main paradoxes described in this history suggests that the State's triumph over the Catholic Church took place at the very moment in which the statistical system assembled in the mid-nineteenth century began to show its first symptoms of obsolescence. This finding offers valuable clues to test the invitation of Patrick Joyce and Chandra Mukerji to abandon interpretations that see the State exercise of power as a unitary and coherent fact. What seems unitary and coherent is not always so. Due to the multiplicity of scenarios with which that power must deal, it is perfectly understandable to notice the onset of mismatches or differentials in State action. Rather than unity and coherence, we need to put more attention on the flexibility of

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<sup>28</sup> Pierre Bourdieu, "Rethinking the State. Genesis and Structure of the Bureaucratic Field," in George Steinmetz (ed.), *State/Culture. State-Formation after the Cultural Turn* (Ithaca: Cornell University Press, 1999 [1994, French]), pp. 53-75.

<sup>29</sup> James C. Scott, *Seeing Like a State. How Certain Schemes to Improve the Human Condition Have Failed* (New Haven and London: Yale University Press, 1998).

State's interactions and the contingent nature of its forms<sup>30</sup>. Only by abandoning the image of the all-seeing Leviathan can we understand that the numbers it gathered and consumed may have been elusive.

In sum, what I am looking for is to present the assimilation of statistics and the territorial consolidation of the State as parallel and correlative processes. In this sense, statistics was not a “tool” at the service of a State already formed and fully qualified to use it, but a field whose concrete configuration took place as part of the formation of that very State. In other words, it was the institutional structure of that State, or the trajectory it followed in its building process, which in the long run defined the limits of the possible for statistics<sup>31</sup>. This, of course, presupposes that I am not analyzing statistics in their scientific meaning, but rather in their administrative dimension. More than in the “facts” it studied or in what statistics had to say about reality, our approach seeks to understand statistics as a variant of the deployment of the State administrative infrastructure. This entails analyzing its contingent anchorage in the territory, the concrete effects of the dispersion of its agents and representatives, which tasks were accomplished and which ones not, and how they enabled or obstructed the consolidation of the ties of dependence between the central administration and the administrative peripheries<sup>32</sup>.

#### Sources and structure of the dissertation

Due to the institutional emphasis of this study, the bulk of the primary sources that support it corresponds to documents generated by various departments of the Chilean State. Laws, decrees, and others documents that ruled the functioning of the Statistics Office allow the reconstruction of the strategies implemented by the central power to organize and territorially anchor this service. Particular attention is paid to the parliamentary debates that preceded the two main laws that organized the Office, those of 1847 and 1911. These discussions are crucial for the elaboration of a more complex reading of the place of statistics within the institutional choreography of the State. Its details –especially the budgetary matters– deactivate the assumption that the reception of this science was favored by a general consensus at governmental

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<sup>30</sup> Patrick Joyce and Chandra Mukerji, “The State of Things: State History and Theory Reconfigured,” *Theory and Society* 46, no. 1 (2017), available from DOI: 10.1007/s11186-017-9282-6.

<sup>31</sup> Stuart Woolf, “Statistics and the Modern State,” *Comparative Studies in Society and History* 31, no. 3 (1989): 588-604.

<sup>32</sup> Michael Mann, “The Autonomous Power of the State: Its Origins, Mechanisms and Results,” *European Journal of Sociology* 25, no. 2 (1984): 185-213.

level. Given that this approach also seeks to trace the concrete deployment of the statistical project in the provincial realities, another important group of sources are the regular communications between the Ministry of Interior and the intendants, and between the latter and the authorities in charge of lower administrative units. As I will show, these registries offer the most relevant clues to approach the everyday life of the processes of production of statistical knowledge and the relation between the central State and its political units. The voices of departmental governors, sub-delegates and district inspectors, as well as the reports of the statistical officers on the ground, help us understanding the scope of the permanent conflicts and adjustments between norm and reality.

The internal documents and bibliographic production of the Statistics Office are also analyzed carefully, especially from the 1860s, when this production reached more regularity and began to circulate internationally. One of the central texts is the *Anuario Estadístico de la República de Chile* (Statistical Yearbook of the Republic of Chile), published almost uninterrupted between 1860 and 1895 and which constituted the main publication of the service. Its 28 volumes and more than 15,000 pages constitute a sort of national statistical encyclopedia, and in its sections one can trace both the transformation of the Republic over the second half of the nineteenth century and the institutional trajectory of the Office. The *Anuario* is also important because it shows important aspects of the State-sponsored scientific editorial policy, since the *Anuario* was part of a larger catalog. On the other hand, due to the editorial sophistication demanded by the preparation of large statistical charts –which in some cases depleted the availability of mobile types in the main national printing presses–, the history of this publication also provides clues to the situation of the publishing industry in general.

The *Anuario Estadístico* was undoubtedly the leading statistical publication of this period, but not the only one. Other government departments produced similar documents, especially in periods when specialized or sectorial statistics started to develop autonomously and not always in connection with general statistics. This assertion requires a clarification. This study addresses some passages in the history of sectorial statistics (commercial, justice or medical), because they played an important role in the overall configuration of the field and, as it was indicated, tended to adopt production protocols that not always met the criteria the central institution proposed. This bifurcation was particularly significant in the phase of configuration of the statistical service, given the difficulties to start it, and also toward the end of the nineteenth



century, when the national statistical system fell into crisis and its centralized logic was defied and even replaced by sectorial statistical research programs run by various ministries and civil society organizations. However, this study mainly focuses on what was known at that time as the “general statistics of the Republic,” which in simple terms allude to the generation of a single national portrait built on the progress of sectorial statistics.

The press is another significant source for this research. National newspapers played an important role as an echo chamber for statistical discussions, and at some passages they even were substitutes for specialized publications. The notes on the state of Chilean statistics, their use as a persuasive instrument in the preparation of population censuses, and the translation or reprinting of articles that informed the global progress of the discipline, turn the press into a relevant actor for this reconstruction. Its role was particularly significant in the period leading up to the establishment of the Statistics Office. It was there where statistics were first discussed, where the organizational projects were presented and where the results of the first national statistical research were publicized.

The press serves also to reconstruct the elusive presence of the population in the trajectory of the national statistical system. While official documents preserve some traces of citizen responses to the State appeal implicit in statistical interrogation, they usually appear as part of arguments designed to justify the limitations of State inquiries. The population is mentioned as an anomie belt, as a mass indifferent or openly hostile to the State’s statistical project. Fear and ignorance are frequent tropes in this liberal representation of how people behave in front of science. Albeit with more delicacy, these documents also try to explain the resistance of the elites to the same project, as was the case of landowners, who for decades disrupted the possibility of producing reliable agricultural statistics. But in both cases the explanations are stereotyped and, therefore, limited. This is not to say that newspapers gave a more complete vision of the phenomenon or registered what official documents omitted, but in some cases its pages reconstruct more vividly the motivations and reactions of citizens to the State inquiries.

This dissertation is divided into four chapters. The first one focuses on the period 1750-1840 and analyzes the beginnings of the Chilean statistical system. This chronological option responds to the understanding of the early republican investigations as part of a model of knowledge production already in use in the second half of the eighteenth century. After

identifying the continuity lines, but also the differences between the colonial topographical descriptions and the inquiries of the independent period, the chapter closes with the analysis of the first proposals for the formation of a national statistic system. The second chapter studies the years 1840-1858 covering the preparatory debates, the establishment, and the terms of the first three directors of the Statistics Office. One of the crucial issues in this period was the need to project these investigations onto the administrative routines of provincial bureaucracies; as part of this process, the first territorial challenges for the deployment of a centralized statistical project started to emerge. The third chapter traces the *jefatura* of probably the most influential figure in Chilean statistics during the nineteenth century, Santiago Lindsay. The years of his administration (1858-1876) correspond to the consolidation era of the Statistics Office, expressed in the progressive uniformity in the protocols of information gathering, the establishment of a network of provincial statistical officers (which reinforced the territorial anchoring of these researches and subordination of the peripheries to the central government), and the appearance of the publication responsible for making Chilean statistics visible at national and international levels –the *Anuario Estadístico*. The fourth and final chapter, centered on the period 1876-1911, covers the crisis and reorganization of the republican statistical project. This crisis cannot be understood apart from the territorial and social transformations experienced by the country as a result of economic modernization and the War of the Pacific. These transformations decreed the obsolescence of the statistical institutions, giving way to a process of disarticulation that toward the end of the nineteenth century –with the 1891 Civil War in between– resulted in the complete de-concentration of statistical production and the relative irrelevance of the Statistics Office. This scenario imposed a profound revision of the statistical project followed by the designing of a new institution, which is the final scene of this dissertation. Finally, all chapters are divided into sections that range from chronological to thematic approaches. Each chapter, in turn, has a particular introduction that situates the corresponding period in the development of the central argument.

## Chapter 1

### **The Numbered Republic. From Topographical Descriptions to the First Proposals for a National Statistical Service (1750-1840)**

This chapter explores the beginning of the Chilean statistical system in a period that ranges from the last decades of colonial rule to the first ones of the nineteenth century. The purpose of this chronology is to place the first Republican scientific efforts in a broad time horizon, linking them with the proto-statistics research ordered by the Spanish Crown during the second half of the eighteenth century. I argue that such experience was crucial, although not determinant, for the early production of official statistics in the Republican period. The linkage was based on an intense familiarity, in terms of tone and format, between the topographical descriptions produced under the Spanish Empire and the first Republican investigations. There was a line of continuity that rested primarily on the work of the intellectuals and bureaucrats who did research for the Empire and later performed similar tasks in the nascent Republic. Such inheritance, however, was transformed in the decades following Independence, particularly when the scientific concerns of the Enlightenment acquired an increasing national tone. In that context, the discussions on the institutional architecture of the new order were projected onto the field of knowledge production, opening spaces of controversy that will mark the beginning of a new stage in the local trajectory of statistics.

This chapter is divided into six sections. The first one provides a review of the proto-statistics research conducted in the Governorate of Chile during the second half of the eighteenth century with the aim of tracking the abovementioned continuities. Although all these investigations responded to imperial initiatives, they entailed the adoption of protocols of data accumulation that were key to the inquiries pursued after the end of the colonial bond. The

second section, pertaining to the field of historiography, seeks to explain why the narratives on the beginnings of the Chilean statistical system tend to ignore or relativize the importance of colonial investigations in the local history of this science. Although this section analyzes problems that will also be treated in the second chapter, mentioning them here is essential to understand the political density of the initiatives that preceded the institutionalization of this service. The third section, focusing on the decade of 1810, analyzes the partial population census of 1813 as the first experience of enumeration planned under Republican criteria. The tensions arising from the need to determine the quotas of political representation constituted the first symptom of how the production of statistics became part of the conflicts the nascent republic faced. The fourth and fifth sections cover the period between the defeat of the Royalist forces in 1818 and the late 1830s, studying the different and failed attempts at establishing a specialized bureaucracy and coherent research programs. During those years there were tensions between a decentralized and a centralized scheme of statistical production, derived from the preeminence of a federalist/liberal agenda in the 1820s, and a centralist/conservative one after the Civil War of 1829-30. This opposition clearly illustrates the close connection between the production of State knowledge and the orientation of the administrative design. Several editorial initiatives that sought to remedy the lack of updated statistical knowledge are also studied in this chapter. These initiatives were the more elaborated response to the failures of State research projects and the impossibility to establish a differentiated bureaucracy. Finally, section six explores the links between statistical discourse and numerization. Using sources and testimonies that accuse serious deficiencies in basic mathematical training among the population, this section assesses the extent to which the State, through the cultivation of the statistical science, may have contributed to the incorporation of the numeric language in civil debates and political planning.

Addressing the period 1750-1840 is important for several reasons. First, it constitutes an ideal setting to understand something I already stated: how the scientific concerns of the Enlightenment were naturalized and transformed during the period of State configuration. Without dismissing the radical transformation of the political scenario in which the continent moved, the history of statistics and the institutions that produced it suggest a strong continuity between colonial researches and the first attempts to gather useful information for the Republican States. This is not to suggest that in these matters the transition from Empire to Nation was defined by absolute similarities. Indeed, from a formal point of view there were more

differences than coincidences between both models, in particular if one considers the type of bureaucracy responsible for conducting research and the distinctions between the public or private nature of the information collected. The links I highlight point to the kind of knowledge generated by these projects, which connect the “topographical descriptions” produced in the late-Colonial period with the first Republican socio-territorial research programs. In that sense, colonial descriptions and early nineteenth-century national statistics shared a common scientific horizon, namely descriptive statistics of qualitative inclination, a model that will only start to change toward the end of that century, when positivism prepared the ground for a quantitative turn and statistics became increasingly linked to social engineering and the calculation of probabilities. In the end, and despite the political changes that took place between 1750 and 1840, this context functioned under the same scheme of knowledge production.

So there were no differences between the colonial and the Republican ways of knowing? I sustain that there were, and the frontier started to be drawn by the pressing questions raised by the Republican discourse. One of the crucial matters was the definition of quotas of territorial representation. The debates on the organization of the first National Congress, those that preceded the population census of 1813, and those that took place a propos of other social surveys, show that the need to enumerate the population turned statistics into one of the main concerns of the Republican authorities. A second problem that established a frontier between both moments was the increasing “nationalization” of the criteria employed to determine the usefulness of the information collected. Although the definition of the use value of this data does not vary much between the Colonial order and the post-Independence period, there is a growing identification of such use with the viability of the Republic, now understood not only as a political community but also as economic unit. Such nationalization may seem obvious, but it should be emphasized because illuminates a relevant transformation during this political transition: once the economic construction of the Republic turned into a collective matter, subject to public debate, the knowledge that enabled it could not be but public and verifiable. Thus, the secretive or restricted logic that characterized the use of knowledge in the Colonial era will be gradually losing ground against the notions of publicity and transparency that determined the flow of statistical information.

Another reason that justifies this exploration refers to the links between scientific knowledge and the State’s institutional design. The assumption is that official knowledge

production cannot dissociate itself from the conditions that stem from the bureaucratic organization of the State. As I will show, the relationship between science and administration philosophy is particularly relevant to understand periods like the 1820s, characterized by intense ideological disputes and the testing of different political projects inspired in the Liberal tradition. In that period the production of statistical knowledge was conceived as a sign of provincial autonomy and thus as an expression of a decentralized administrative structure. This order was virtually dismantled in the decade following the triumph of the Conservative forces in the Civil War of 1829-1830, which marked the turn toward a monocentric and authoritarian political system. This change was also projected onto the way of understanding the production of statistics, annulling the prominence of the Provincial Assemblies, symbol of the political decentralization of the 1820s, in favor of Santiago, which became the only point of confluence of the informational networks the new order began to build. Such redefinition in the territorial distribution of power, and by extension in the practices of knowledge production, determined the administrative design under which the Statistics Office was organized, tying its trajectory to the territorial penetration of the State.

But this chapter also examines the numerous attempts at producing statistical knowledge before the creation of the national statistical service. The 1830s were definitively the most hectic years in this regard. The first cadaster for the allocation of the tax burdens, a second population census carried out between 1831 and 1834, and the publication of several scientific reports, took place during that decade. Interestingly, these initiatives have no place in the local history of this science. Since none of these efforts crystallized in long-term projects nor were able to establish research programs of national scope, they have been portrayed as the prehistory, or as imperfect and precedents, of an activity that would only take shape decades later.

The period 1750-1840 offers several clues on the meaning and scale of the investigations that preceded the establishment of a specialized institution in statistics. They enable us to properly consider the lines of continuity between the Colonial and the Republican periods as well as the efforts to acclimatize this science in a context of permanent uncertainty. For these attempts at producing State knowledge were carried out in a period marked by several political and military conflicts. The Independence wars (1810-1814), the years of reinstallation of the Colonial order (1814-1817), the political skirmishes of the 1820s that led to the Civil War of 1829-1830,

and the war against the Peru-Bolivian Confederation (1836-1839) cannot be ignored when assessing the difficulties to establish a modern statistical service.

### 1. The topographical descriptions or the colonial way of knowing

During the eighteenth century, two were the strategies preferably used by the Spanish Crown to collect news on its overseas colonies: the organization of scientific expeditions and the remittance of questionnaires for the preparation of topographic descriptions. While the former entailed to organizing and financing itinerant commissions of experts to gather and produce knowledge, the latter implied to entrust these investigations to local administrative bodies from civil, military or ecclesiastical nature. In these cases, imperial bureaucrats officiated as implementers and informants. Most of those questionnaires were prepared by the Council of the Indies [*Consejo de Indias*] with the aims of knowing the territory, identifying its resources, and determine the state of the subjects of the Monarchy. Colonial authorities were responsible for coordinating the distribution of surveys, processing the information collected, and writing synthesis reports. Of course, this practice was not restricted to the Enlightenment period. These inquiries, that in some cases had more than four hundred questions, date from the first days of the Conquest period. It is estimated that over thirty questionnaires crossed the Atlantic during the three centuries of colonial rule (at least eight made it in the eighteenth century), and although some inquiries were designed for specific territories, most of them had a continental focus, imposing relatively uniform processes of data accumulation. Also known as *relaciones de tierra* [land descriptions] or *relaciones geográficas* [geographical descriptions], these colonial texts required extraordinary administrative efforts that mobilized and connected almost all the bureaucratic strata of the Spanish Empire, from viceroys to parish priests.<sup>33</sup>

The operational requirements of these investigations, aimed to collect demographic, urban, economic, fiscal, religious and historical information, contributed to strengthening local networks of knowledge circulation or to build them where they did not exist. This is what happened in Chile in the mid-eighteenth century when the Monarchy ordered to carry out several

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<sup>33</sup> Although local reports requested by provincial authorities (economic descriptions, fiscal visits, censuses, taxation studies) also formed part of the Empire's documentary production, I do not consider them here due to their limited scope. A historical analysis on the questionnaires of the Indies can be found in Francisco de Solano (ed.), *Cuestionarios para la formación de relaciones geográficas de Indias, siglos XVI/XIX* (Madrid: Consejo Superior de Investigaciones Científicas, Centro de Estudios Históricas, Departamento de Historia de América, 1988), pp. xvii-xxvii.

investigations, resuming the general colonial interrogations suspended since 1648. A Royal Decree issued in 1741 was the first call in this respect. Only the Viceroyalty of New Spain obeyed the order. The information gathered during this experience constituted the basis with which José Antonio Villaseñor y Sanchez, official of the Royal Treasury of New Spain, drafted the only response to that call, the *Theatro Americano. Descripción general de los reinos y provincias de la Nueva España*, published in two volumes in 1746 and 1748. This work, whose global circulation was restricted because of the geopolitical value of its contents, was seen as the type of reaction expected from the colonies. Interestingly, Villaseñor's text dovetailed with the tasks the functionaries of the peninsula were performing, who on those very years prepared the famous *Catastro de Ensenada* (1749), a survey applied to the territories of the Castile region that became one of the most sophisticated pre-statistics reports produced in Europe in the eighteenth century. By then, the Spanish Crown seemed immersed in a frantic cycle of documentary production and consumption, and hoped that its colonies would act accordingly. It was in that context that King Fernando VI decided in 1751 to summon those authorities that had ignored the first call to generate descriptions of their districts following the Mexican example.<sup>34</sup>

José Perfecto de Salas, by then prosecutor of the Royal Audience, was in charge of conducting these researches in the Governorate of Chile.<sup>35</sup> His commission is interesting for several reasons, but mainly for the high levels of sophistication with which it was carried out. As the demand for information from Spain had been limited to identify general problems, with rather vague questions, Salas decided to rewrite them seeking to reduce such vagueness and help those surveyed to respond with greater accuracy. Instead of using a unique questionnaire, he prepared at least six different interrogations, defined according to the administrative and geographical of the potential respondents.<sup>36</sup> Salas intended with this to accumulate inputs of

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<sup>34</sup> "Real Cédula al Gobernador de Chile urgiéndole, lo mismo que al Virrey del Perú y otras Audiencias, a la formación de informes sobre el estado del Reino, ya ordenado (y no realizado) en 1741," Madrid, Buen Retiro, September 2, 1751, quoted by Francisco de Solano (ed.), *Relaciones geográficas del Reino de Chile, 1756* (Santiago) Consejo Superior de Investigaciones Científicas, Universidad Internacional SEK, 1994), pp. 47-48.

<sup>35</sup> Born in Buenos Aires in 1708, José Perfecto de Salas studied theology and law in Santiago and Lima. He began his bureaucratic career as General Defender of Minors in the capital of the Viceroyalty of Peru; later he was Lawyer of Prisoners before the Tribunal of the Holy Office of the Inquisition. He moved to Chile in 1747 to assume as Fiscal *Oidor* (judge) of the Royal Audience. There he became an influential adviser to Governors Domingo Ortiz de Rozas (1746-1755) and Manuel de Amat y Junient (1755-1761). For more details of his life, see the classic biography by Ricardo Donoso, *Un letrado del siglo XVIII, el doctor José Perfecto de Salas* (Buenos Aires: Facultad de Filosofía y Letras, Universidad de Buenos Aires, 1963), 2 vols.

<sup>36</sup> The division of the questionnaires was as follows: 1) magistrates of cities and *partidos* of the Bishopric of Santiago; 2) magistrates of cities and *partidos* of the Bishopric of Concepción; 3) military authorities of the



different tone and origin to develop a description attentive to the peculiarities of the colonial space, and also ensuring the precision of the information obtained. That is why the questionnaires included key questions to crosscheck the data provided by each official.

The data gathering process began in March 1755 and run through March 1756 according to the dates of the reports. While most of the questionnaires were answered satisfactorily, ranging from six to eight folios, some officials exceeded any expectation and send reports two or three times longer. Civil and military agents responded with more enthusiasm than their peers of the ecclesiastical world. The priests wrote little, with terse formulas, not saying more than necessary. The network of informants who helped Salas was diverse in bureaucratic terms – *corregidores*, treasury officials, military governors, priests– but homogeneous socially speaking. They were all of “noble quality,” trained in the most prestigious institutions of the metropolis and the provincial centers, as stated a specialist who rebuilt their biographies. In territorial terms, out of the twenty four identified officials, ten were born in Spain and the other fourteen were Creole; of these, eight came from Santiago, four from Concepción, and the other two from Cordoba and Salta.<sup>37</sup>

The topographical description coordinated by Salas was one of the most sophisticated experiences of early statistical knowledge production in eighteenth-century Chile. But it was not the only one. Some years before the very Salas had carried out a detailed population census of the Valdivia region (1749), as part of an inspection visit. The following year, as a corollary of this trip, he wrote the *Informe sobre el Reyno de Chile, sus Poblaciones, Fuertes y Misiones*, focused on the local administrative units between Santiago and Chiloé. Salas proposed in that document a series of political reforms of urban, economic, and military character.<sup>38</sup> A new

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garrisons located in the prisons and forts of the War Frontier (Yumbel and Arauco); 4) officials of the Royal Treasury of Finance in Concepción; 5) The Royal Mint in Santiago; 6) parishes and curacies.

<sup>37</sup> For a social characterization of these informants, de Solano (ed.), *Relaciones geográficas del Reino de Chile*, pp. 32-38. Both Salas’s questionnaires and the 24 reports in response can be consulted in the same volume, pp. 47-284. The synthesis report –the topographical description as such– has not been found, although it is argued that its contents became part of the *Historia Geográfica e Hidrográfica del Reyno de Chile*, remitted to King Charles III in 1761 signed by governor Manuel de Amat. In this regard, Donoso, *op. cit.*, pp. 135-166 and Hugo Ramírez Rivera, “El Oidor Fiscal don Joseph Perfecto de Salas de los Ríos y su *Historia Geográfica e Hidrológica con Derrotero General Correlativo al Plan del Reyno de Chile* conocida erróneamente como de Amat,” *Revista de Geografía Norte Grande* 28 (2001), pp. 167-172.

<sup>38</sup> Regarding the Valdivia census, Gabriel Guarda, “La visita del Fiscal Dr. José Perfecto de Salas al Gobierno de Valdivia y el censo de su población (1749),” *Historia* 21 (1986), pp. 289-354; on the report, Hugo Ramírez Rivera, “El oidor don José Perfecto de Salas y de los Ríos y su *Informe sobre el Reyno de Chile, sus Poblaciones, Fuertes y Misiones*,” *Revista de Geografía Norte Grande* 27 (2000), pp. 209-215 and also Donoso, *op. cit.*, pp. 103-133, who reproduces it fully.

research took place in 1778, this time as part of the administrative visit of José Antonio de Areche to the Viceroyalty of Peru. Tomas Álvarez de Acevedo, then regent of the Royal Audience, represented him in Chile.<sup>39</sup> Along with on-site inspections, Álvarez also circulated a questionnaire among civil authorities and wrote the *General News of the Kingdom*, a detailed report divided into seventeen booklets. The questionnaire was short and uniform and practically there were no omissions, but the process took twice as long as Salas's.<sup>40</sup>

During the last quarter of the eighteenth century there were several initiatives to count the governorate's population. One of them was conducted between 1777 and 1778, by the government of Agustín de Jáuregui and in parallel to Álvarez's visit.<sup>41</sup> Although the task was entrusted to the *corregidores*, they delegated their powers to low-ranking oficiales that toured the territory and enumerated its inhabitants. In 1784 there was another count, but restricted to the island of Chiloé and its surroundings. Three years later, in 1787, a partial census in the population of the Bishopric in Santiago was carried out, following a similar procedure to the one applied by Jáuregui. In 1791 and 1793 Governor Ambrosio O'Higgins ordered new censuses in the dioceses of Santiago and Concepción, both directed by ecclesiastical authorities and executed on the basis of parish books. Finally, in 1796 O'Higgins presented a partial recount of the Mapuche population in the south, which was the first serious attempt of enumeration in Arauco. The count was applied with the assistance of the *lengua general* [official interpreter] and the *capitanes de amigos* [colonial middlemen], and classified the population recognizing their own socio-territorial categories.<sup>42</sup>

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<sup>39</sup> Born in Spain in 1735 and after receiving a sophisticated legal training, Alvarez de Acevedo went to America in 1766. Before coming to Chile, where he joined the Royal Audience and served as interim governor twice, he was a member of the Royal Audience of Charcas, of Lima and governor of Potosí.

<sup>40</sup> Fernando Silva Vargas, "La visita de Areche en Chile y la subdelegación del regente Álvarez de Acevedo," *Historia* 6 (1967), pp. 153-220. Álvarez's questionnaire and the responses of the magistrates, in Francisco de Solano (ed.), *Relaciones económicas del Reino de Chile (1780)* (Madrid: Consejo Superior de Investigaciones Científicas, Centro de Estudios Históricos, Departamento de Historia de América, 1994).

<sup>41</sup> On Jáuregui's census, its differences with contemporary ecclesiastical countings (the *Matrícula* of Alday) and its place among the different prevailing forms for registering population in the eighteenth century, see Alejandra Araya, "Registrar a la plebe o el color de las castas: 'calidad', 'clase' y 'casta' en la Matrícula de Alday (Chile, siglo XVIII)," in Alejandra Araya and Jaime Valenzuela (eds.), *América colonial. Denominaciones, clasificaciones e identidades* (Santiago: RIL Editores, 2010), pp. 331-362.

<sup>42</sup> This list gathers enumerations that may be part of a "pre-statistics" stage and does not consider the multiple censuses produced in the military and ecclesiastical spheres. Diego Barros Arana, *Historia general de Chile. Tomo VI* (Santiago: Editorial Universitaria, Centro de Investigaciones Diego Barros Arana, 2000), pp. 270-271; Juan Contreras, et. al. *Fuentes para un estudio de demografía histórica de Chile en el siglo XVIII* (Concepción: Universidad de Concepción, Central Institute of History, 1971) and Rolando Mellafe, "Reseña de la historia censal del país," in *XII Censo General de Población y I de Vivienda. Levantado el 24 de abril de 1952*, Vol. I, Santiago, Servicio Nacional de Estadísticas y Censos, 1952, pp. 11-33. Historian Jorge Pinto supplements this list with a

The investigations conducted by Salas and Álvarez as well as the censuses of Jáuregui and O'Higgins constitute small links of the intensive transatlantic chains of documentary production put into motion by the Spanish Monarchy in its reformist era. It was a complex machinery whose impact can be measured at imperial, colonial and metropolitan level. At the imperial level, these interrogatories met the needs of knowledge derived from the imperative of “good government” and, at the same time, responded to the imperatives of the Enlightenment project in the context of the Bourbon reforms. Although the topics covered by these eighteenth century topographical descriptions had been considered in previous reports (that is what explain certain affinity among the questionnaires of 1584, 1635 and 1784, to name just three examples), it was the intense multiregional dialogue required for preparing and implementing these reforms which gave this enlightened research program a particular profile. Thus these inquiries created and/or activated transoceanic channels of circulation of data on which the informational structure of the Spanish Empire was reorganized. It was a relatively efficient structure, which had not to compete with parallel knowledge circulation networks and whose practical limits were defined by its own capacity to cover the imperial geography.<sup>43</sup>

From the metropolitan point of view, this documentary chain had important institutional consequences. If part of the political challenge of the Bourbon reforms was to stimulate bureaucratic channels that allow producing and process information, another part of the problem was to concentrate, storage and administer the documentation produced. It is revealing that one of the major repositories of the Spanish colonial administration, the General Archive of the Indies, began to operate precisely in the midst of this proliferation of information. What is particular about the organization of this archive, launched in 1785 at the behest of José de Gálvez, Minister of the Indies, was the criteria followed for cataloging its documents. Taking distance from the usual mode of classification, defined according to matter, geographical origin,

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previous enumeration “slightly comparable with a census” conducted in the old Bishopric of Concepción. This enumeration, of partial character, took place during Bishop Pedro Ángel de Espiñeira’s visit to this jurisdiction between 1765 and 1769. See Joseph de la Sala, *Visita general de la Concepción y su obispado por Fray Pedro Ángel de Espiñeira, su meritísimo prelado (1765-1769)*. Estudio preliminar, transcripción y notas de Jorge Pinto Rodríguez (Chillán: Ediciones Instituto Profesional de Chillán, 1986).

<sup>43</sup> Without ignoring the particularities of each colonization process, the case of India provides an interesting counterpoint to the Spanish Empire, as the pre-existence of strong local informational systems determined the capacity of the English to collect and systematize reliable knowledge. In this regard, Christopher A. Bayly, *Empire and Information: Intelligence Gathering and Social Communication in India, 1780-1870* (New York: Cambridge University Press, 1996). On the origins of the informational machinery of the Spanish Empire and the relationship between knowledge and colonial control, Arndt Brendecke, *Imperio e información. Funciones del saber en el dominio colonial español* (Madrid: Iberoamericana-Vervuet, 2012).

or the names of the producers, the documentation was organized according to the administrative structure of the imperial system, establishing links between indexation and institutional provenance of each document.<sup>44</sup>

At local level, the dynamism of the system depended not only on the upper echelons of the colonial bureaucracy, but also on the meticulous and sometimes anonymous work of intermediate and low-levels officials who acted as compilers, reviewers and even ghost narrators of the local reports remitted to viceroynal and peninsular authorities. This leads thinking that the long-term impact of these colonial efforts should be traced not only among the surveyed population but also among the Creole bureaucrats and local figures involved in these investigations.<sup>45</sup> As I will show, the first attempts to articulate a modern statistical system in Chile were closely linked to those officials who participated in the imperial efforts to produce social information. This realization, however, does not imply to assert the existence of a perfect continuity between the Colonial and the Republican ways of knowing. Indeed, from a formal point of view there were more differences than similarities between both models. Colonial research responded to occasional initiatives and did not succeed in consolidating routine practices; they were not undertaken by specialized bureaucracies nor were differentiated from the daily tasks of government; the knowledge produced did not have a public orientation nor was seen as an input for open political discussions; on the contrary, the data obtained was usually kept under reserve or total secrecy.<sup>46</sup>

Notwithstanding these differences, an important part of this colonial experience was retrieved in the post-Independence period, when the informational needs of the nascent republics translate the Enlightenment discourse into the language of the modern nation-State. What formerly served the purposes of the Spanish Empire now would be put at the service of smaller national projects. Those who were in charge of conducting colonial investigations would play a

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<sup>44</sup> Francisco de Solano, "El archivo General de Indias y la promoción del americanismo científico," in Manuel Sellés, José Luis Peset and Antonio Lafuente, *Carlos III y la ciencia de la Ilustración* (Madrid: Alianza Editorial, 1988), pp. 277-296. For a critical view of the stability and consistency of the imperial archive, Ann Laura Stoler, *op. cit.*; also, Thomas Richards, *The Imperial Archive. Knowledge and the Fantasy of Empire* (London-New York: Verso, 1993), who links the existence of the archive and the act of knowing to the idea of "visualization of power."

<sup>45</sup> Bernard S. Cohn proposed a similar idea in his assessment of the impact of population censuses on the objectification process of the caste system in colonial India. Rather than in the population, the nexus between census and social representation can best be viewed in the very enumerators and among lettered circles. Bernard S. Cohn, "The Census, Social Structure and Objectification in South Asia," in *An Anthropology among the Historians and Other Essays* (Oxford: Oxford University Press, 1987), pp. 224-254.

<sup>46</sup> In this contrast I follow the distinction by Marc Joseph Ventresca regarding the differences between colonial and modern censuses, *op. cit.*, pp. 50-54.

paramount role in the republican context, as they reused the categories and research protocols assimilated over the last decades of imperial rule. Only thus can the high degree of affinity between the topographic descriptions of the eighteenth century and the first attempts to generate statistical portraits of national character in the nineteenth century be understood. However, the strong identification between the national history of statistics and the consolidation of the republican project tends to blur or ignore these connections.

## 1.2. The beginnings of the Chilean statistical system. Background for another history

Effectively, the narratives about the beginning of the Chilean statistical system tend to enshrine a relative divorce from the colonial experience. There are aspects that tend to be considered, such as some parallels in terms of data gathering procedures, practices of documentary conservation and retrieval, or the equivalence of the obstacles faced in the development of these research programs. Yet there seem to be no complex reflections on the manner in which colonial-knowledge practices could or could not have an impact on the republican order. Even though colonial enumerations and descriptions figure as precedents of the research sponsored by the independent State, they are considered imperfect or preliminary versions of a practice that would gain its modern profile much later. Likewise, there is a reluctance to interpret these early experiences as part of broader political conflicts, like those of the 1820s which highlighted the strong connections between knowledge-production schemes and territorial organization.

This divorce is partially explained by strictly demographic criteria with which these early experiences of research have been evaluated. High rates of omission, the absence of a specialized administrative body, and sometimes the low reliability of the data collected explain that those inquiries are seen as passages of a relevant prehistory, but considered dispensable when the aim is to build reliable series. The gap expands when the objective is to identify experiences that fit with the scientific criteria, the periodicity and the bureaucratic specialization associated to modern statistics. Saying this does not imply to neglect that these interpretations have been crucial for identifying the milestones in the history of the first attempts to define and characterize the population of the country, but the type of questions they are concerned with –fundamentally

linked to the quality of the data produced in the late Colonial period– have distanced themselves from exploring other links.<sup>47</sup>

The diagnosis is similar when considering studies that go beyond strictly demographic concerns or combine them with questions pertaining institutional history or history of science. The tendency here is to identify the beginning of the local statistical system with the foundation of the Statistics Office in 1843, establishing a direct relationship between the acclimation of this science and the consolidation of Republican institutions. According to this interpretation, the decades that followed the establishment of the Office would be nothing more than stages of a linear process of consolidation resulting in the emergence of a differentiated bureaucracy and the organization of more accurate censuses. Due to the republican leaning of these interpretations, the knowledge generated during the Colonial era –and even what was done in the first decades of independent rule– is encapsulated in a space epistemologically different from the one supposedly distinguishable after the creation of the Office.<sup>48</sup> Certainly, within this scholarship there are works that illuminate the links between colonial and republican inquiries, but they do not explore the political density of the transition from one order to another.<sup>49</sup>

Any history of the Statistics Office refers to the works by French polymath Claudio Gay, who presented the project that inspired the creation of the institution. Gay arrived in Chile in 1828 from Paris to work as science teacher. In 1830, just after the triumph of the Conservatives

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<sup>47</sup> See for example, Jorge Pinto, “Censos e imaginarios en el Chile del siglo XX,” *Dimensión Histórica de Chile* 17-18 (2002-2003), pp. 155-190; and Mellafe, *op. cit.*, Juan Braun Ll. *et. al.*, *Economía chilena 1810-1995: estadísticas históricas* (Santiago: Instituto de Economía, Pontificia Universidad Católica de Chile, Documento de Trabajo N° 187, 2000) and José Ignacio Pérez Eyzaguirre, “Los primeros censos chilenos de población (1854-1920). Análisis crítico de las fuentes de datos censales y sugerencias de uso,” *Boletín de la Academia Chilena de la Historia* 119 (2010), pp. 55-95. For a continental approach, Nicolás Sánchez-Albornoz, *La población de América Latina. Desde los tiempos precolombinos al año 2020* (Madrid: Alianza Universidad, 1977), pp. 19-43 and Mara Loveman, “Census Taking and Nation Making in Nineteenth-Century Latin America,” in Miguel A. Centeno y Agustín E. Ferraro (eds.), *State and Nation Making in Latin America and Spain. Republics of the Possible* (New York: Cambridge University Press, 2013), pp. 329-355.

<sup>48</sup> For some examples of this type of interpretation, Luis Mizón, *Claudio Gay and the formation of Chilean cultural identity* (Santiago, Editorial Universitaria, 2001), pp. 55-60; Sol Serrano, Macarena Ponce de León and Francisca Rengifo, *Historia de la Educación en Chile (1810-2010). Tomo I. Aprender a leer y escribir (1810-1880)* (Santiago: Taurus, 2012), particularly the chapter “Cuántos somos, cuánto saben. Estadística y alfabetización,” pp. 93-138; Macarena Ponce de León, Francisca Rengifo and Ernesto San Martín, “¿Demanda social por educación? Estadística, sociedad y alfabetización a partir del censo de la república de 1854,” *Revista Pensamiento Educativo* 46-47 (2010), pp. 303-316 and Andrés Estefane, “‘Un alto en el camino para saber cuántos somos...’. Los censos de población y la construcción de lealtades nacionales. Chile, siglo XIX,” *Historia* 37, Vol. I (2004), pp. 33-59.

<sup>49</sup> Under this trend I locate the last works by Jorge Pinto, *La población de la Araucanía en el siglo XX. Crecimiento y distribución espacial* (Temuco: Ediciones Universidad de La Frontera, 2009), p. 13 on and *Los censos chilenos del siglo XX* (Temuco/Osorno: Universidad de La Frontera/Universidad de Los Lagos, 2010), pp. 15 on; see also Jenny Monsalve’s research on population censuses, *Retratos de nuestra identidad: los censos de población en Chile y su evolución histórica hacia el bicentenario* (Santiago: Instituto Nacional de Estadísticas de Chile, 2009), pp. 25-116.

in the Civil War, he was hired by the government to carry out a scientific expeditions throughout the national territory and produce the first scientific portrait of the country.<sup>50</sup> Although the Liberal governments of the 1820s had pursued similar objectives, hiring Juan José Dauxion Lavaysse, José Alberto Baclker D'Albe and Ambrosio Lozier, none of them managed to finish theirs commissions. Now, with Gay, the Conservatives aimed to fulfill that need, replicating in the realm of knowledge the triumph obtained through the arms. The territorial exploration of Gay took place in parallel to the consolidation of the order established by the Conservative revolution that brought General Joaquin Prieto to power (1831-1841). Such revolution was consolidated through the Constitution of 1833, which marked a turn toward an authoritarian and centralist order based in Santiago. This meant a hard blow to village and provincial elites, who from then on experienced a gradual predation of the power they accumulated in the previous decade.

The following government, headed by General Manuel Bulnes (1841-1851), decreed a general amnesty aimed to dilute the divisions of the recent past. This atmosphere of national reconciliation was reinforced by the creation of a series of scientific and education institutions that distanced Bulnes' regime from the authoritarian tone of the previous administration. It was in this context in which Claudio Gay submitted his project for organizing a statistics office, which would also assume archival functions preserving State and historical documents. Such duality responded to Gay's conviction that both the conservation of information and the systematic study of reality were the main pillars to which the future of the Republic could be based on. Gay submitted a surprisingly detailed plan: when he thought about the official documents to be collected he also thought of where and how to preserve them, the gathering procedures required, which indexing system had to be used, and how these pieces were to be retrieved either by State functionaries and citizens. He also planned its operational routines and even identified a candidate to lead the new division. In a letter to Manuel Montt, then-Minister of Justice, Worship and Public Instruction, Gay stated that one or two young assistants should accompany the director of the proposed institution. Together they would process the data periodically sent from provinces, State departments, the Church, and other private institutions.

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<sup>50</sup> The relationship between Gay and the State was long and tense. It lasted until the beginning of 1870, when he finally started to publish the thirty volumes of the *Historia física y política de Chile*, a milestone the State had long awaited. For assessing Gay's contribution to the scientific history of Chile, Rafael Sagredo, "De la historia natural a la historia nacional. La *Historia Física y Política* de Claudio Gay y la nación chilena," in Claudio Gay, *Historia Física y Política de Chile*, Tomo Primero (Santiago: Cámara Chilena de la Construcción, Pontificia Universidad Católica de Chile, National Library of Chile, 2007), pp. ix-lvii.

This information, he added, would be the basis for editing an “enlightening summary” of the progress and setbacks of State administration.<sup>51</sup>

Gay’s statistical plan, formulated after his expedition and the experience of collecting data all over the national territory, came to reinforce –from the point of view of the production of knowledge– the centralist turn of the Conservative revolution. Santiago, as the capital city, was then converted in the main node where all the informational circuits, fed by State institutions and different provinces, would meet. The logic of the project neatly reproduced the triumphant centralist administrative philosophy and, moreover, coincided with the path taken by other nations which by the same time began to establish their statistical institutions. Interestingly, this proposal, a seemingly natural outcome of the new political scenario, constituted a radical twist on the views with which the problem of the production of State knowledge had been tackled a decade earlier. Indeed, in the administrative design prior to the Constitution of 1833, this task depended on the Provincial Assemblies, symbol of the political decentralization of the 1820s, and not on the central government. Gay’s project modified substantially this arrangement, dismantling the existing informational logic and blocking the identification of knowledge-production practices as constitutive element of provincial sovereignty.

If one reassess the complexity of the abovementioned changes, there seem to be strong reasons to review the history of the Chilean statistical system from a perspective that sheds light on the processes and debates that preceded the formal institutionalization of the service. Not with the aim to identify new characters or set a different chronology, but to outline the political implications of the first discussions about the production of State knowledge. The following sections explore the links between knowledge, territory and political power in the efforts for producing national statistics at a key moment in the history of the State and the relationship between the capital and the provinces. The 1813 population census, the first experience of counting planned according to republican criteria, was a crucial stage in the definition of that relationship and also in the transformation in the meaning of counting people and resources.

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<sup>51</sup> Letter by Claudio Gay to Manuel Montt, Valparaíso, June 23, 1842. *Correspondencia de Claudio Gay. Recopilación, prólogo y notas de Guillermo Feliú Cruz and Carlos Stuardo Ortiz* (Santiago: Ediciones de la Biblioteca Nacional, 1962), pp. 39-41.



### 1.3. Enumeration and representation

The political questions brought about by the organization of an independent government put statistics at the center of the concerns of the new authorities. Its relevance was proved after the call for the first National Congress in 1811, which made evident that the implementation of the principle of representativeness could not consummate without the exact enumeration of the country's population. The relationship between censuses and political representation explains why statistics occupied a central place in the first discussions that prepared the reception of republicanism; and also that became a space of dispute and negotiation between Santiago and the provinces.<sup>52</sup>

In mid-December 1810, the local *Junta de Gobierno* invited the twenty-five *partidos* [the basic administrative unit] into which the territory was divided to choose representatives to the first National Congress, which would meet the following year. Resorting to mere demographic estimates, the *Junta* determined in the call the number of delegates for each administrative unit. Santiago was favored with six seats; Concepción with three; Coquimbo, San Fernando, Talca and Chillán with two each. The other nineteen *partidos* would choose only one representative [Table 1.1]. Local elections were verified according to that distribution and the Congress met for the first time on July 4, 1811. Further on, however, some members began to express dissatisfaction with the arbitrariness of assigning quotas without knowing the exact number of inhabitants of each jurisdiction. Discomfort increased later when the *Junta* unilaterally decided to raise the number of representatives of Santiago to twelve. In protest, several delegates renounced their positions, throwing into doubt the legitimacy of the Congress and compromising the participation of the provinces in the national government.<sup>53</sup> As a way to restore trust and reverse the excesses of the *Junta*, the Congress agreed on applying a general population census, which was an urgent requirement for the “demarcation of the provinces” and the definition of the number of representatives for each of them. The operation was entrusted to the sub-delegates of each *partido* and the very congressmen who offered their “patriotic” help.<sup>54</sup>

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<sup>52</sup> For a similar reflection, but pertaining to another political context, Claudio Lomnitz, “El censo y la transformación de la esfera pública,” in *Modernidad Indiana. Nueve ensayos sobre nación y mediación en México* (México D.F.: Planeta, 1999), pp. 103-105; also Sánchez-Albornoz, *op. cit.*, p. 36.

<sup>53</sup> For more references on this episode, see Manuel de Salas, *Escritos de don Manuel de Salas y documentos relativos a él y a su familia* (Santiago: Imprenta, Litografía y Encuadernación Barcelona, 1914), vol. II, pp. 225-234.

<sup>54</sup> *Sesiones de los Cuerpos Legislativos de la República de Chile. 1811 to 1845* (hereafter S.C.L.) (Santiago: Imprenta Cervantes, 1887), vol. I, October 9, 1811, p. 127.

Table 1.1 Number of representatives by *partido* called to the 1811 National Congress, according to the allocation of quotas of the *Junta de Gobierno* (December 15, 1810).

<i>Partido</i>	Deputies	<i>Partido</i>	Deputies
Valdivia	1	Talca	2
Osorno	1	Curicó	1
Concepción	3	San Fernando	2
Los Ángeles	1	Los Andes	1
Rere	1	Aconcagua	1
Rancagua	1	Petorca	1
Melipilla	1	Cuzcuz	1
Valparaíso	1	Coquimbo	2
Quillota	1	Huasco	1
Santiago	6	Puchacai	1
Chillán	2	Itata	1
Linares	1	Copiapó	1
Cauquenes	1	TOTAL	36

Source: *Sesiones de los Cuerpos Legislativos de la República de Chile*, vol. I, pp. 9-10.

The relationship the call established between census and provincial demarcation refers to one of the basic criteria that authorities integrated into their discussions on territorial division. Following the example of revolutionary France, the first administrative units planned in Chile after 1810 sought to link the principle of equality or geographical parity (in terms of length, but also resource availability and connectivity) to the data of population density (which corrected the foregoing element). Surface area and demographics were thus on the axis of the idea of proportionality that guided the first proposals for administrative reorganization. But to implement that new order took longer and implied more conflicts than expected. Indeed, the territorial division sanctioned during the late Colonial period remained active at least until the early 1820's. That is why the call was based on the *partido* as political unit, which was imposed after the establishment of the Intendancy System in 1786.<sup>55</sup>

The lack of experience of the authorities and the operational difficulties identified in the planning phase of the census led Congress, weeks after, to invite the parish priests to carry out a

<sup>55</sup> On this point, María Carolina Sanhueza, "La primera división político-administrativa de Chile, 1811-1826," *Historia* 41, Vol. II (2008), pp. 447-460.

census of their parishioners. It was assumed that such information could serve as basis for calculating totals, avoiding thus the setbacks entailed in census work.<sup>56</sup> This resolution not only exposed the practical limits of an incipient and somewhat improvised civil bureaucracy, but also recognized the long-lasting experience of the Catholic Church in the management of vital records. Both the legitimacy of parish priests as compilers and administrators of this type of data and the territorial dispersion of the parishes (important mostly to penetrate into rural areas), conferred the Catholic Church a symbolic and logistical superiority that the national State took decades to match. This early alliance would be replicated in almost all nineteenth-century censuses, even after the Chilean State take control of vital records in mid-1880.

The political agitation of the time prevented this first enumeration project from being concretized. A military intervention led by José Miguel Carrera in December 1811 suppressed the *Junta* and ordered the closing of National Congress. Carrera justified the coup, among other reasons, as a reaction to the inequality in the quotas of representation, which had been assigned without knowing the exact number of inhabitants of each party.<sup>57</sup> Despite the nature of the argument, the new authorities did not do much to advance in this matter. The need of sustaining a *de facto* government deprived the coup plotters of the necessary forces and resources to resume the plan of the National Congress or propose a new one. The only territory where these works experienced some progress was in the Bishopric of Concepción, in the south of the country, where the Episcopal Secretariat conducted an enumeration on the basis of parish registers. That was one of the many measures with which regional authorities sought to distance themselves from the capital city, making explicit a break that put the Republic on the verge of civil war.<sup>58</sup>

Only in mid-1813 the idea of carrying out a census was resumed. The political context, however, was less auspicious than the existing two years earlier. To the growing tensions between the elites of Santiago and the provinces was now added a counter-revolutionary push led

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<sup>56</sup> SCL, Vol. I, November 7, 1811, p. 174. See also Luis Montt, *Bibliografía Chilena* (Santiago: Imprenta Barcelona, 1904), tomo II, p. 170. Such setbacks not only had to do with the absence of a differentiated bureaucracy able to perform the task efficiently, but also with the well-known resistance of the population to enumerations based on the belief that censuses were instruments related to military recruitment and tax increases.

<sup>57</sup> It is pertinent to quote here Carrera's manifesto with regard to the argument of representation: "A body null from the plan of its installation could not operate but with intolerable defects. The people chose the members of Congress before counting the number of their inhabitants and before knowing how many representatives corresponded to them. So it happened that an area of four ranches had as much representation as the most numerous neighborhood, and these, in another part, exceeded the legitimate limits of its respective increase." "Manifiesto de don José Miguel Carrera, en 4 de diciembre de 1811, en el cual justifica la disolución del Congreso," SCL, vol. I, p. 198.

<sup>58</sup> "Un censo del Obispado de Concepción en 1812," *Revista Chilena de Historia y Geografía*, tomo XIX (1916), pp. 266-267.

by Viceroy José Fernando de Abascal from Lima organized to put an end to the autonomous government. Amid such uncertainty, the authorities assumed a new working plan that rested on the nascent civil bureaucracy and citizen support. The *Juntas Cívicas* or Civic Boards, [local government institutions] were responsible for coordinating the census sending commissioners to the four cardinal points of each jurisdiction. When the territory, due to its extension or orography, exceeded the capabilities of the original commission, the Boards could summon volunteers to cover smaller units. Immediately after the end of counting, a member of the Board was in charge of collecting and remitting the maps, forms and all other relevant documentation to the authorities in Santiago, who then would process and summarize the provincial reports.<sup>59</sup>

In the plan of the authorities, the operations should not last more than 28 days, counted from the date of reception of the instructions sent from Santiago. But the pace of the fieldwork diluted such optimistic schedule. Three months after the remittance of the first guidelines several provinces had still not forwarded results, so the patriotic and inclusive tone of the first calls was gradually replaced by threats and peremptory demands.<sup>60</sup> The lack of resources made impossible to think of monetary stimulus to the commissioners involved, so the authorities had no other choice than appealing to their willingness and public spirit.

The 1813 census was neither taken in Santiago and its neighboring districts nor in the Bishopric of Concepción, by then under the domain of the royalist troops advancing towards the capital<sup>61</sup>. The census showed a total population of 823,685. That was the official figure of the country's population until 1835 when the results of a new census, conducted between 1831 and 1834, were published. As a partial census, this experience illustrated several of the administrative challenges this nascent State power would face over time. So it was in this context and with that type of challenge in mind –precariousness of provincial bureaucracies, lack of familiarity with data-gathering and -processing procedures, distrust of the people regarding census activities– that the first programs oriented to the establishment of a permanent statistical institution began to take shape.

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<sup>59</sup> For the details of the 1813 census preparations, Archivo Nacional, *Censo de 1813. Levantado por Juan Egaña, de orden de la Junta de Gobierno formada por los señores Pérez, Infante y Eyzaguirre* (Santiago: Imprenta Chile, 1953), pp. 1-4.

<sup>60</sup> See for example, *El Monitor Araucano*, Santiago, September, 14 1813.

<sup>61</sup> Nevertheless, at the moment of combining the results, the local census carried out by the ecclesiastical authorities of Concepción in 1812 was considered valid and its total was integrated along the calculations of the units where the operation was effectively applied (which were fourteen: Copiapó, Huasco, La Serena, Petorca, Ligua, Santa Rosa de los Andes, Aconcagua, Quillota, Valparaíso, Melipilla, Rancagua, Colchagua, Curicó and Talca).

#### 1.4. From Juan Egaña's institutional proposals to the informational decentralization of the 1820s

If the protagonists of statistical inquiries during the Bourbon reforms were José Perfecto de Salas, Tomás Álvarez, José Agustín de Jáuregui and Ambrosio O'Higgins, the Republican transition featured figures such as Juan Egaña, Jean Joseph Dauxion-Lavaysse, Fernando Urizar and Manuel Rengifo. Among them, the experience of Juan Egaña is particularly important because he best represents the connections between the colonial and the republican ways of knowing (moreover, he was responsible for systematizing the final results of the 1813 census). A notably intellectual and prolific writer, his extensive knowledge placed him as one of the core ideologues during the institutional setting of the new republic. It is no coincidence that his name was associated with the main political, economic and educational projects that circulated in the early republican years. Most interestingly, his relationship with statistics went far beyond the census as his political and administrative interest in the discipline took the form of different plans to set an institutional framework devoted to produce updated knowledge on the geographic, economic, and demographic situation of the country. Indeed, and before Claudio Gay, Egaña was the sponsor of the main proposals on this matter in the 1810s and 1820s.

Egaña's formal relation with statistics started with a report he drafted in 1803 as Secretary of the Royal Mining Tribunal. While this work only aimed to produce a cadaster of the mineral deposits existing in the country, the first pages expose a broader analytical interest as they register a careful geographic, natural, and political description of the territory and its administrative units. The familiarity of this report in terms of tone and format with eighteenth-century topographical descriptions is one of the characteristics that stands out in this work, and such affinity somehow attests for the prevalence of a specific modality of research and organization of data.<sup>62</sup>

It is common to attribute to this precedent that Egaña was commissioned by the republican authorities to prepare and conduct the 1813 census. According to the testimonies of the time, no one was better prepared than him to fulfill that task. What today is known about the

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<sup>62</sup> Another interesting aspect was Egaña's harsh critique against those who served as informants during the inquiry. His adverse judgment concerning the training and knowledge of this improvised network of data gatherers announced several of the problems that, decades later, the top ranking officials of the Statistics Office would denounce as the main obstacles for achieving the institution's research goals. The lack of a well-trained bureaucracy seemed an insurmountable and permanent frontier to collect reliable knowledge. Juan Egaña, *Informe presentado al Real Tribunal de Minas* (Santiago: Gastón Fernández Montero Editor, 2000 [1803]).

1813 census is basically the enumeration of the inhabitants of the country, which was missing for some time and retrieved by Claudio Gay in the middle of his research for writing the *Historia física y política de Chile*.<sup>63</sup> What is less known is that this task coincided with a parallel commission also presided over by Juan Egaña and integrated by José Santiago Portales, Joaquín Gandarillas, and Antonio José de Irisarri. This group had the mission to prepare a complete statistical report on the economic and financial situation of the country, its resources and all productive activities with the aim of introducing temporary taxes to cover the costs of the war against the Abascal forces.<sup>64</sup> What happened to these works? After the triumph of the counter-revolution in mid-1814, which marked the collapse of the first autonomous government, the Spanish General Mariano Osorio ordered the requisition of the documents produced by the rebel authorities. According to the testimony of Egaña, the arrival of the royalist troops surprised him while drafting the report on “the state of the kingdom [*reino*] in all its branches” in connection with the results of the census.<sup>65</sup> The last known whereabouts of these documents was the Secretariat of Government, from which they would have been stolen. Historian Miguel Luis Amunátegui sustained that after the defeat of the royalist forces in 1817-18, a notice was posted in all public places offering a significant reward to whoever returns or gives news on these statistical works, and threatening with severe punishment to anyone who hid them or protect the holder. Even parish priests would have joined the search by pressuring their parishioners from the pulpit.<sup>66</sup> Eventually, French scientist Claudio Gay found decades later a copy of the census records, and by the end of the nineteenth century historian Diego Barros Arana would have held in his hands the statistical report, too. What lingers of this episode is that these two research

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<sup>63</sup> It is pertinent to register here (in English) the full title of the counting, since it clarifies the scope and operational requirements of the research program ordered by the government: *General census of the Republic of Chile distributed by age, sex, civil status, professions, provinces, councils (delegaciones) and territories, with specification of factories, schools, public establishments and workshops of all offices, churches, monasteries, public employees and municipalities, number of craftsmen, farmers, merchants, militia, and other occupations of the citizens. Directed and prepared on the orders of the Supreme Government in the year of 1813 and 14.* Quoted by Montt, op. cit., p. 172.

<sup>64</sup> Again, the title attests the scope of the agenda: *Economic and financial statistics of the State of Chile, or effective and approximate calculations of what produce in the Republic its rustic and urban farms; first and second hand trade; the proceeds and ecclesiastical properties; industry manufacturing, public revenues of all kinds; establishments of public amusements, domestic service and day labor, all tax branches and municipal funds, to set upon them a temporary direct contribution; and Project of this contribution distributed by all the branches and products, prepared on order of the Supreme Government and the Senate.* Quoted by Montt, op. cit., p. 172-173.

<sup>65</sup> Juan Egaña, “Memorias de los servicios públicos del Dr. Don Juan Egaña” [1822], *Escritos inéditos y dispersos*. Edición al cuidado de Raúl Silva Castro (Santiago: Imprenta Universitaria, 1949), p. 214.

<sup>66</sup> Miguel Luis Amunátegui, “Las primeras composiciones dramáticas y las primeras críticas de teatro escritas en Chile,” *Revista de Santiago*, Vol. I (1872), pp. 648-649.

programs, the census and economic statistics, expressed the scientific vision that Egaña projected onto later initiatives and which attest his comprehension of statistics as something larger than mere demographic counts.

In his *Proyecto de Constitución para el Estado de Chile* of 1811, Egaña sketched the creation of a *Consejo de Economía Pública* [Council of Public Economy]. Along with being in charge of fostering the “industrial, rural, and commercial” development of the Republic, this institution should conduct “political arithmetic research” and apply its results “to *policía* and governmental goals.” Of the six directors of the *Consejo*, two had to act as “travelers” over the national territory verifying inspection visits, collecting news on the state of the industry, and proposing measures for improvement; two would travel abroad to promote commercial contacts and identify experiences of economic advancement to be replicated in the country; the other two, residing in capital city, would assume the daily routines of the institution.<sup>67</sup> This interest in establishing a regular office in charge of “political arithmetic” research would be reaffirmed a decade later in the Constitution of 1823, also drafted by Egaña. Although in this second text the *Consejo de Economía Pública* was called *Dirección de Economía Nacional* [Directory of National Economy] and “political arithmetic” was replaced by the term “statistics,” the number of directors was the same and the tasks assigned to each member were almost identical.<sup>68</sup> The text of the 1823 Constitution insisted on another idea embedded in the project of 1811: the links between statistical research program and the territorial administrative regime. The territory was successively divided into departmental governorates, delegations, sub-delegations, prefectures, and inspections. The basic unit for the works of “*policía* and statistics” would be the prefecture, formed by ten communities (each community corresponded to ten inhabited houses, in the city or the countryside). Additionally, the departmental councils (integrated by representatives of the different delegations that formed a departmental governorate) would operate like local representatives to the *Dirección de Economía Nacional*.

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<sup>67</sup> “Proyecto de Constitución para el Estado de Chile, compuesto por don Juan Egaña, miembro de la comisión nombrada con este objeto por el Congreso de 1811, y publicado en 1813 por orden de la Junta de Gobierno,” Title V, Section IV, SCL, tomo I, pp. 227-228.

<sup>68</sup> *Constitución Política del Estado de Chile, promulgada en 29 de diciembre de 1823*, Title XVII: Dirección de Economía Nacional. National Congress of Chile: <http://bcn.cl/1lz4t> (accessed: 19 January 2015). It is important to point out that among the commissions of the 1823 Constituent Congress there was Commission on Agriculture, Industry, Trade, Mines and Statistics, responsible for the matters defined in its title. For the details of its composition, see SCL, session 6, August 19, 1823, p. 44.

Following this administrative division, the following year Egaña published an *Almanak nacional para el Estado de Chile en el año bisiesto de 1824*, a description of more than 250 pages that although did not include demographic or economic news, resembled the format of these texts. Along with an extensive historical section in which he identified the civil and religious authorities of the country from the Inca occupation until the Republican era, and another which listed the main national institutions next to the names of citizens that run them, Egaña inserted under the title “Interior government of the towns” (*Gobierno interior de los pueblos*) detailed relations of each of the departments, delegations and districts in which the government was provisionally organized.<sup>69</sup> Although that scheme was soon overcome, its publication reflects the need among the enlightened circles of the time of fighting uncertainty at any cost.

Indeed, the public documents of the 1820s are replete with claims that account for the political, economic and administrative problems generated by the absence of a definite territorial demarcation, a direct consequence of the lack of up-to-date information on geographical and statistical matters. In August 1823, for example, while resigning from his position as provisional Supreme Director, military Ramón Freire insisted on the need to determine as soon as possible the territorial division of the Republic, since that was the first step to promote national prosperity. Moreover, time before he had ordered a “scientific and statistical journey” collect the knowledge required to propose the institutions that would remedy the ills bedeviling the provinces: “[i]n thirteen years of revolution and war, they all were wounded and it is convenient to heal their scars, because a new and permanent [political] arrangement cannot be established without that step.”<sup>70</sup> More imperative was a diagnostic pronounced the month following in the sessions of the Constituent Congress of 1823 about the budgetary and bureaucratic implications of the delay in defining the administrative delimitation: “such partition should be performed as soon as possible, but [the Commission of Government] believes that not having until today geographic and topographic plans of the country, a general statistics, or even an approximate knowledge of the population, productions and means of each of the potential units, any division is very risky, and even more so without, before all things, knowing which number of functionaries and new officials should remain, since that knowledge is crucial for the treasury’s

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<sup>69</sup> Juan Egaña, *Almanak nacional para el Estado de Chile en el año bisiesto de 1824* (Santiago: Imprenta Nacional, 1824).

<sup>70</sup> SCL, session 2, August 13, 1823, p. 22.



plan in preparation.”<sup>71</sup> The authorities of the Ministry of Finance also alluded to the absence of reliable statistics as one of the main obstacles for preparing annual budgets and calculating the provincial administration costs. Their argument was extensible to the problem of commercial statistics, a key issue for a treasury that depended increasingly on foreign trade taxes.<sup>72</sup>

The “scientific and statistical” exploration Freire alluded to and on which the hopes of the National Congress rested, had been entrusted to the French military Jean Joseph Dauxion-Lavaysse in June 1823. His experience regarding these matters came from a detailed research carried out at the beginning of the nineteenth century on the North Atlantic coast of South America, the model for the inquiries he would try to reproduce in Chile. Dauxion-Lavaysse developed his research following what the specialists at the time called “first-hand gathering” of data, a combination of field notes and information obtained through questionnaires distributed among authorities and neighbors. This way, by visiting each jurisdiction and interviewing its inhabitants, Dauxion-Lavaysse obtained direct evidence about the climate, local history, economic activities, territorial demarcation, demographic conditions and isolated minutiae that enabled him to write the first sketches of his reports. Even though his mission was left unfinished (later critics accused him of superficial scientific training), several of his reports were published in the press of Santiago between 1825 and 1826.<sup>73</sup>

The publicity of Dauxion-Lavaysse’s works was not an isolated issue. Several press articles of the period, some of them accompanied by charts and tables difficult to prepare given the scarcity of resources in the local presses, featured statistical knowledge as an irreplaceable input for both the exercise of power and public debate. *La Abeja Chilena*, a newspaper edited by Juan Egaña in Santiago in 1825, dedicated two of its eight numbers to the reproduction of statistical summaries concerning the “major powers of Europe and America” as a way of

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<sup>71</sup> SCL, session 24, September 17, 1823, p. 205.

<sup>72</sup> On the impact of foreign trade taxes on State administration, Elvira López, *El proceso de construcción estatal en Chile. Hacienda pública y burocracia (1817-1860)* (Santiago: DIBAM, 2014), pp. 97-162.

<sup>73</sup> Jean Joseph Dauxion-Lavaysse, *A Statistical, Commercial, and Political Description of Venezuela, Trinidad, Margarita and Tobago* (Londres: C. and W. B. Whittaker, 1820). See also Angelina Lemmo, *Dauxion Lavaysse y su obra* (Caracas: Universidad Central de Venezuela, 1967). The reports of his visits to the jurisdictions of Copiapó, Huasco and Coquimbo were published in *La Década Araucana*. See the editions of October 7 and November 10, 1825, and February 4, and March 6, 1826; see also *Suplemento al no. 15 de La Década Araucana*, January 14 and *Suplemento al no. 18 de La Década Araucana*, February 25, 1826. His commission was deemed so relevant that Juan Egaña dedicated a paragraph to him in the “Economía, Beneficencia y Salud Pública” section of his 1824 almanac. See “Comisión de Estadística,” *Almanak nacional*, pp. 103-104.

illustrating the criteria with which the power of a modern State should be measured.<sup>74</sup> The French physician Pedro Chapuis did the same in 1827 from the pages of *El Verdadero Liberal*, also in Santiago, by inserting a detailed comparative table registering the territorial extension, population, yields, public debt, and the number of army and marine personnel of the main European monarchies [figure 1.1]. “Every day we hear dissertations about the different States of Europe,” he said in the header of the insert, “but without any other base than the arbitrary will of those who speak. We believe that it would be useful to offer more concrete notions on this matter, and to that end have found a statistical and comparative table of the major powers.”<sup>75</sup>

**NOTAS ESTADISTICAS.**

Tales las son como deberse saber las diferencias en el estado de Europa, de que los estadísticos se fundan mas que en la arbitrariedad de los que hablan. Hemos creido que seria útil en que-  
 sar las naciones mas potivas, y á propósito hemos encontrado un cuadro estadístico y comparativo de las principales potencias.

NOMBRES DE LOS ESTADOS Y PRINCIPALES REINANTES.	Extension (a)	Poblacion	REVENIDOS en francos.	Deuda pública (copil. en franc.)	Ejército.	MARINA.	OBSERVACIONES.
FRANCIA (reyno) Colonias	10,120 1,100	31,485,391 820,000	993,613,963	3,940,397,840	255,000 (1)	53 navios, 60 fragatas. Total de buques 314.	(a) Del territorio en millas cuadradas geograficas.
CARLOS X—nacido en 1757.							(b) Dieron ser ahora Carlos VI.
AUSTRIA (imperio)	12,139	28,500,000	320,000,000	2,381,180,000	210,000	Algunas fragatas y galeras.	(c) Reina Maria II. en virtud de la abdicacion de su padre el emperador del Brasil que aun hasta ahora ha conservado el título de rey de Portugal.
FRANCISCO I.—nacido en 1768							
BAVIERA (reyno)	1,150	3,700,000	76,000,000	217,000,000	58,500		
LEO I.—nacido en 1799							
CONFEDERACION JERMANICA—	3,950	9,800,000	180,000,000	98,000	98,000	5 nav. 5 ó 6 frag.	
DINAMARCA (reyno)	3,761	1,700,000	32,000,000	232,800,000	39,000		
FEDERICO VI.—nacido en 1768.							
ESPAÑA (reyno)	8,701	10,372,000	123,000,000	1,390,000,000	70,000 (2)	4 frag. 15 carb. Total 29.	
FERNANDO VII.—nacido en 1784.(3)							
ESTADOS ROMANOS	715	2,175,000	29,000,000		9,000		
LEO XII—nacido en 1760.							
GRAN BRETANA (reyno solo)	5,113	21,100,000	1,921,000,000	21,001,420,000	71,000	90 nav. 83 frag. cer- tu de 1000 buques.	(4) Sin contar los ve- leros.
En Asia	13,000	70,000,000					(5) Incluidos los que se llaman veleros.
En América	50,000	1,200,000					
En Africa							
JOSÉ IV —nacido en 1762.							
PAISES-BAJOS (reyno) Colonias	1,040	2,470,000 3,400,000	184,000,000	1,270,000,000	35,000	14 nav. 27 fragatas Total 102.	
GUILLEMO FEDERICO—en 1772.							
PORTUGAL (reyno)	1,667	3,172,000	41,588,000	398,000,000	22,000	61 navios, 11 fragatas 20 carb. Total 43	
PRINCESA MARIA ISABEL REINA (3)							
PRUSIA (reyno)	4,980	11,494,000	125,000,000	825,000,000	160,000		
FEDERICO GUILLERMO—en 1770.							
Europa	20,500	45,100,000	310,000,000	1,250,000,000	710,000	50 nav. 20 fragatas Total 161.	
ASIA	275,400	1,000,000					
Reyno de Polonia	2,200	3,700,000			60,000		
RUSIA (imperio)							
NICOLAS I.—nacido en 1784							
SARDEÑA (reyno)	1,275	3,025,000	45,000,000		45,000		
CARLOS FELIX—nacido en 1765.							
DOS SICILIAS	2,035	6,800,000	80,000,000			9 navios. Total 10.	
FRANCISCO I.—nacido en 1775.							
SUECIA y NORUEGA	16,155	3,550,000	60,000,000	38,100,000	40,000	11 nav. 200 galeras.	
GILLES XIV—nacido en 1764.							
SUIZA (12 cantones)	880	1,750,000	350,000				
Europa	9,335	10,200,000	160,000,000		238,400	23 navios. 40 fragatas. Total 180.	
ASIA y Africa	32,200	15,500,000					
TURQUIA (imperio)							
Sultan MAHMUD—nacido en 1784							

Figure 1.1. Comparative Table of European Nations in 1827.  
 Source: *El Verdadero Liberal*, Santiago, July 24, 1827. 4.

The reports on the state of the nation also found their space during this period. Publicist and Liberal congressman Melchor José Ramos illustrated several editions of *La Clave* with charts and reflections on the demographic features of several provinces of the country. Of great interest were the news referring to the Province of Chiloé, published in an edition of July 1827,

<sup>74</sup> *La Abeja Chilena*, Santiago, August 20 and 23, 1825 (issues 6 and 7).

<sup>75</sup> *El Verdadero Liberal*, Santiago, July 24, 1827.

when the memories of the royalist presence in the area were still latent. Such report was the result of a local census practiced at the end of 1826 by the Intendant of the province as part of the inputs for sustaining the federal project then underway. The report showed the total number of inhabitants of each *partido*, divided according to sex and age range. A particular fact called the editor's attention: despite the "long war" in which the province had been involved to expel the royalist forces, the male population exceeded the total of females. Based on this unexpected discovery and without hiding its suspicions regarding the accuracy of the count, Ramos outlined two conclusions that reflected the anxiety about the future of the island, the material vulnerability of the State and the way in which statistics, as argument, began to nurture political discussion. On the one hand, these figures confirmed that in case of emergency the government would count with enough men to establish a "respectable body of troops;" on the other, given the "natural inclination" of the Chiloé inhabitants toward maritime activities, these calculations reinforced the presumptions that the island was one of the best prepared places for the establishment of a naval force. Far from any abstraction, Ramos's reflection on Chiloé's future illustrated the concrete and traditional links between statistics, military recruitment and State power.<sup>76</sup>

The systematic publication of statistical news in the second half of the 1820s coincided with an important political transition that impacted on the production of State knowledge. If we recall Egaña's plans to institutionalize the production of statistical knowledge, his proposals coincide with a relatively centralized vision of the State informational system. Indeed, both the *Consejo de Economía Pública* and the *Dirección de Economía Nacional* were agencies located in Santiago that operated under the logic with which knowledge was compiled in the colonial era. The tasks of the "traveling director" were nothing more than an update version of the old "territorial visits" or "territorial commissions," and although there were no clear guidelines regarding the procedures through which these officials were to gather news (nor was anything like a file system mentioned), it can be deduced that the colonial questionnaires' format

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<sup>76</sup> "Provincia de Chiloé," *La Clave*, Santiago, July 26, 1827. See also, "Provincia de Maule," January 31, "Nuevo censo en Chiloé," March 15, and "Estado de la población de Valdivia," May 13, 1828. Due to its condition of strategic territory (it is not casual that the last focus of royalist resistance was located on this island), Chiloé was during the 1820s and 1830s subject of numerous statistical descriptions. Along with the articles of *La Clave* of 1827 and 1828, and the demographic news published in *El Araucano* during the 1830s, one can find a series of statistical reports generated in 1829 on population, education, number of military personnel, agricultural and livestock production, and timber exports. See Archivo Nacional Histórico de Chile (hereafter AN), Fondo Antiguo, vol. 24, doc. 39, ff. 198-202).

remained the model for this research program. Indeed, that was the mechanism applied by Dauxion-Lavaysse in his expedition, a face-to-face operation that entailed direct contact with the local population, but that in the end rested on the action of a single figure, whose legitimacy came from the central government.

However, the 1823 Constitution introduced a significant change regarding the territorial anchoring of these investigations. Although the institution responsible for these tasks operated in the capital city, the decision to turn the Departmental Councils into provincial representatives of the *Dirección de Economía Nacional* marked a symptomatic step toward a relative decentralization of State research. Such turn was accentuated in the second half of the 1820s when the reinforcement of an anti-centralist agenda, which resulted in a political project of federal organization, entrusted the provinces with the supervision of State researches. In December 1826, José Miguel Infante, the tireless promoter of federalism in Chile, proposed that the Provincial Assemblies were in charge of preparing population census and local statistics in accordance with the instructions given by the National Congress<sup>77</sup>. This motion did nothing else than rehabilitating a demand posed by several actors since the constitution of such assemblies; it certainly satisfied the need to accelerate the production of reliable knowledge for guiding State administration, but also reflected the progressive decentralization of power by means of which the provinces sought to strengthen their autonomy. The opening speech by Francisco Antonio Pinto, Intendant of the Province of Coquimbo, to the unit's assembly in 1825 illustrates this point. His first assertion pointed to a problem already announced in 1811: without reliable statistics it was impossible to materialize the idea of representative government, because both the

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<sup>77</sup> *Proyecto de Reglamento Provisorio de las Atribuciones de las Asambleas Provinciales que propone don José Miguel Infante, para que rija mientras se aprueba la nueva Constitución*, SCL, vol. XIV, January 19, 1827, p. 50. The proposal had already appeared in *Reglamento Provisorio para la Administración de las Provincias*, November 30, 1825. SCL, vol. XII, July 27, 1826, p. 244. The Provincial Assemblies derived from the autonomous assemblies (a sort of local councils) organized in areas such as Coquimbo and Concepción during the first years of independence. After taking renewed prominence following the abdication of Bernardo O'Higgins in 1823, the federal laws of 1826 expanded and formalized their powers. Later, the Liberal Constitution of 1828 entrusted them with the government and administration of the provinces. As the clearest expression of the provincial agenda of the 1820s, the Provincial Assemblies became an important space of negotiation between local powers and the central State. Luis Galdames, *Historia de Chile. La evolución constitucional, 1810-1925* (Santiago: Balcels & Co., 1925), p. 943; on the political meaning of the Provincial Assemblies for the development of an anti-centralist and anti-authoritarian discourse, Gabriel Salazar and Julio Pinto, *Historia contemporánea de Chile Tomo I: Estado, legitimidad, ciudadanía* (Santiago: LOM Ediciones, 1999), pp. 192-199, and Gabriel Salazar, *Construcción de Estado en Chile (1800-1837). Democracia de los "pueblos", militarismo ciudadano. Golpismo oligárquico* (Santiago: Editorial Sudamericana, 2006), pp. 151-347; for a critical approach to federalism by an influential representative of Liberal ideas in the 1820s, Juan Luis Ossa, "La actividad política de Francisco Antonio Pinto: 1823-1828. Notas para una revisión biográfica," *Historia* 40, vol. I (2007): 91-128.

territorial demarcation and the assignation of Congress seats to each administrative unit depended on that knowledge. Secondly, he developed the economic argument, which was also advanced by some officials of the Ministry of Finance since the Declaration of Independence in 1818: statistics was the only knowledge that would allow “distributing fairly and equitably taxes and contributions” and grasp the “forces and resources” available. In his opinion, there was no other instrument to measure the “progress or decline” of wealth.<sup>78</sup> This principle of relative autonomy of the provinces was later resumed by the Liberal Spaniard José Joaquín de Mora for the drafting of the Political Constitution of 1828, which in general terms kept the spirit of Infante’s proposal (the Provincial Assemblies would remain in charge of statistics), but without making reference to the circulation a standardized form.<sup>79</sup>

While it remains unclear which was the political reference, or the principle that inspired this decentralizing turn in the informational policy of the Republic, several clues point to the Constitution of Cádiz of 1812, which in Article 335, point 7, ordered Provincial Councils (*diputaciones*) to “form the census and statistics” of their jurisdiction. This formula will subsequently be copied in other Latin American Constitutions, like that of Mexico of 1824.<sup>80</sup>

### 1.5. Political centralization and statistical production

This decentralized informational model, derived from the federalist/liberal logic predominant in the second half of the 1820s, begun to be dismantled after the Civil War of 1829-30 and the

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<sup>78</sup> “Mensaje con que el Gobernador de la Provincia de Coquimbo Don Francisco Antonio Pinto abrió las sesiones de la Asamblea instalada en la Capital de aquella provincia el 26 del pasado Junio [1825],” AN, Intendencia de Coquimbo, vol. 17, f. 489. I thank Juan Luis Ossa for this reference.

<sup>79</sup> *Constitución Política de la República de Chile promulgada el 8 de agosto de 1828*, Art. 114, n° 13. Constituted by a minimum of twelve representatives, elected every two years by direct vote (in proportion of one for each 7,000 inhabitants), the Provincial Assemblies could designate senators and propose three candidates for the appointment of intendants, vice-intendants, and judges of first instance; create municipalities; approve or reject measures for the benefit of the population; authorize the annual budget of the municipalities and also their extraordinary expenses; monitor the institutions of charity and education, as well as those of security, police, and sanitation; propose measures of improvement to the government; keep records of economic activities; ensure the observance of the Constitution and the electoral law; and certainly to form the statistics of each province.

<sup>80</sup> See Jesús Bustamante, “¿Estadística o censo? La probabilidad como una cuestión política y moral,” en Jesús Bustamante, Laura Giraudó y Leticia Mayer, *La novedad estadística. Cuantificar, cualificar y transformar las poblaciones en Europa y América Latina, siglos XIX y XX* (Madrid: Ediciones Polifemo, 2014), p. 48. To prove this link would add another factor, if marginal, to the study of the impact of the Cádiz Constitution on the Chilean political system. Juan Luis Ossa, “De Cádiz a la América del Sur. El viaje de una ilusión constitucional,” in Antonino De Francesco, Luigi Mascilli Migliorini y Raffaele Nocera (coordinadores), *Entre Mediterráneo y Atlántico. Circulaciones, conexiones, miradas, 1756-1867* (Santiago: Fondo de Cultura Económica, 2014), pp. 255-278.

triumph of Conservative forces. In the short term, the implementation of a centralized administrative philosophy would gradually modify the protocols with which the Liberals had planned the production of State knowledge. The starting point of this transition was the Constitution of 1833, which abolished the Provincial Assemblies, and was later consolidated with the Internal Regime Act of 1844, which concentrated a significant share of power in the Executive branch. The provincial and community participation of the 1820s was thus eradicated and replaced by the President of the Republic, who turned intendants, departmental governors, subdelegates and inspectors into his representatives in the basic units of the administrative chain.<sup>81</sup> This centralist reversal brought about important changes in favor of Santiago, whose influence was felt not only on the political sphere, expressed in rampant practices of electoral interventionism, but also on fiscal policy and, as we shall see, in the definition of a new State informational policy.<sup>82</sup>

In the short term, the statistical production maintained the fragmentary and unsystematic tone of the previous decades and would still depend on the zeal of authorities and enlightened intellectuals rather than on a national program of research. In any case, the iteration of scientific initiatives sustained by private actors would testify for the existence of an interest akin to the State concerns regarding statistics. Contingency measures, like the organization of visiting commissions to get to know the state of the provincial administration, were sometimes appropriate opportunities to compile useful news. Although of doubtful statistical value, in the long run those inquiries allowed the accumulation of research experience that later would impact on other institutional contexts with the bureaucratic migration of public agents.<sup>83</sup> In this context, the official newspaper *El Araucano*, founded in 1830, was the main platform and meeting point

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<sup>81</sup> Manuel Carrasco Albano, *Comentarios sobre la Constitución Política de 1833* (Valparaíso: Imprenta y Librería del Mercurio; 1858), pp. 189-192.

<sup>82</sup> On the implications of this change on taxation, López, *op. cit.*; for a long-term review of the effects of administrative centralization on the development of the Republic, Karina Arias Yurisch, "Revisión de las estructuras político-administrativas territoriales en el Chile del siglo XIX," *UNIVERSUM* 25, vol. 1 (2010), pp. 44-59.

<sup>83</sup> A good example of this is the commission of the first general inspector of tax offices, Victorino Garrido, who toured the country at the beginning of the 1830s to supervise and regulate the work of treasuries and fiscal agencies all over the country. During his expedition, Garrido gathered a series of statistical reports generated by provincial authorities, which served as the basis for the introductory sections of his own reports. See, as example, "Mala copia, sin años, de los datos estadísticos que pasa el Intendente de la Provincia de Valdivia al Supremo Gobierno y al Visitador General de Oficinas Fiscales, Dn. Victorino Garrido, que actualmente se halla en esta plaza," AN, Fondo Antiguo, vol. 24, doc. 40, ff. 203-214v. Garrido's visits have been analyzed by López, *op. cit.*, 179-192. With respect to the accumulation and dissemination of bureaucratic experience, the case of the military José Santiago Aldunate is illustrative. He was governor of Valdivia during the fiscal visit of Garrido and signed the description of Valdivia cited above. Shortly after he appears collecting statistical news in the northern departments of the Province of Coquimbo. See *El Araucano*, 11 January 1833.

of all these dispersed efforts to produce statistical knowledge, being also the resonance chamber of the practical and theoretical developments of this science in other latitudes.<sup>84</sup> Also from this period date a couple of publications aimed at bringing together scattered information and building comprehensive portrayals that would cover the needs of political administration: *El chileno instruido en la historia topográfica, civil y política de su país* by the religious Franciscan José Javier de Guzmán, and *Repertorio chileno. Año de 1835* by Fernando Urizar Garfias. Finally, but no less important, in those years a new population census was applied.

*El chileno instruido en la historia topográfica, civil y política de su país* was published in two volumes between 1834 and 1836 under the direct sponsorship of President Joaquín Prieto, who allocated resources from the treasury to finance the editing and printing of the manuscript.<sup>85</sup> This was intended to be a work with serious pedagogical implications, expressed not only in the title and the drafting in Socratic terms (the narrative develops through a dialogue between an uncle and his nephew), but also in the intention of the author to offer a summary of “the knowledge that every man must have of the country in which he was born.”<sup>86</sup> Such purpose did not exclude foreigners, who could find in its pages a valuable introduction to the situation of Chile. Although its structure and some in the title may suggest some kinship with colonial topographical descriptions, it would be more precise to define it as an eminently political history

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<sup>84</sup> Among the local statistical researches published during the early years of *El Araucano* were (translated into English): “Report on the number of inhabitants of both sexes of the Municipal Department of the capital of Santiago of Chile, ordered by the Supreme Government of 1830” (December 25, 1830); a statistical description of the Province of Coquimbo signed by Intendant José María Benavente (January 11, 1833); “Province of Chiloé. Report that manifests the number of inhabitants, with distinction of *partidos*, sex, and civil status, prepared in the year of 1832,” signed by Juan Felipe Carvallo (January 25, 1833); and fragments of departmental statistics produced during the census of 1835 (May 22, June 12, and November 27, 1835). They appeared along with charts on public budget, education, criminality, vaccination, and burials in the Pantheon General of Santiago. At the international level, *El Araucano* published “Considerations on Statistics” (January 9 and 23, 1835, translated from the *Foreign Review*); “Statistics” (May 27, 1836, translated from the *Foreign Quarterly Review*); “General and philosophical statistics of the European civilization, by Mr. Juan Schoen” (June 10 and 17, July 1, 15, 22 and 29, and August 5 and 26, 1836); some more particular statistics, as of Great Britain (April, 28 1832); United States of Mexico (May 1, 1835); Spain (May 18 and 22, 1835); and Uruguay (May 12, 19 and 26, June 2, August 11 and 25, and September 1 and 15, 1837). The statistical news of Spain were excerpted from the book of Alexandre Moreau de Jonnés, *Statistique de l'Espagne: territoire, population, agriculture, industrie, commerce, navigation, colonies, finances. Avec une carte* (Paris: Imprimerie de Cosson, 1834), translated into Spanish, with additions and corrections, by Pascual Madoz Ibáñez and published in 1835 in Barcelona. Moreau de Jonnés, as stated in the introduction, had an important influence on the development of Chilean statistics, and his works (or reviews on the same) appeared recurrently in *El Araucano* and other print media. See, for example, “Sumario de la riqueza agrícola de Francia, por Mr. Moreau de Jonnés” (*El Araucano*, May 4, 1849), and Manuel Antonio Matta, *op. cit.*

<sup>85</sup> José Javier de Guzmán, *El chileno instruido en la historia topográfica, civil y política de su país*, vol I (Santiago: Imprenta Nacional, 1834), vol. II (Santiago: Imprenta Araucana, 1836). A recent edition (2012) was published in Santiago by Editorial Universitaria, whose paging I follow.

<sup>86</sup> *Ibid.*, p. 19.

complemented with reports of geographical and economic focus. The emphasis on politics is understandable when one considers that Guzmán was an actor and a privileged witness of the Independence and the organization of the Republic. In fact, for contemporaries such as Andrés Bello, Guzmán was the first historian who wrote in Republican terms about what happened after the struggle for emancipation.<sup>87</sup>

The relevance of *El chileno instruido* was in collecting updated data on the state of the country toward the 1830s, especially on agricultural, mineralogical and demographic issues. On the latter, Guzmán agreed with the impression that the national population was small in relation to the resources of the territory, coinciding thus with thinkers like the Jesuit Joaquín de Villarreal, Manuel de Salas and Juan Egaña. The idea of a rich country yet dramatically deserted was, indeed, one of the stronger inheritances of the late-colonial intelligentsia to the republican thought.<sup>88</sup> That is reason why the issue of population was condensed in several “lessons” (as Guzmán titled each of the dialogues) and that the work ends with a series of demographic recommendations to the authority.<sup>89</sup> The only updated information that Guzmán could not integrate in his book were the results of what is today known as the census of 1835 (to which I will refer below), still ongoing when he was writing. Therefore his only reference on the matter were the estimates of Alexander von Humboldt on the American population (who calculated for Chile a population of 1,200,000 inhabitants) and the results of the census applied in the

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<sup>87</sup> Born in 1759, José Javier de Guzmán joined with 14 years the Order of Francisco where he acquired a solid intellectual training. He ended up being a reputed scholar during the Colonial period –held the position of professor at the Royal University of San Felipe– and a sought-after political consultant after Independence. Affiliate to the moderate group during the revolutionary times, his name appears among the list of assistants to the *Cabildo* meeting of 1810, the one that sparked off the autonomist movement, and among the founders of important Republican institutions, like the National Library (1813) and the National Society of Agriculture (1838). His writings and political action promoted important reforms and discussions on education, migration policy and urban reform. He died in 1840. For this biographic sketch I follow Hugo Ramírez Rivera, “Fray Joseph Francisco Xavier de Guzmán y Lecaroz (1759-1840) and *El chileno instruido en la historia topográfica, civil y política de su país*,” *Revista de Geografía Norte Grande* 13 (1986), pp. 81-86. The opinion of Andrés Bello on Guzmán’s work is in the preliminary note of the 2012 edition, p. 17.

<sup>88</sup> “With few arms and less lights,” said Juan Egaña in 1803, “we imitate the dragon who watched over treasures he was unable to enjoy.” Egaña, *Informe presentado...*, p. 28. The impact on the local Enlightenment thought of the idea of Chile as a deserted country, in Pinto, *Los censos chilenos...*, p. 32.

<sup>89</sup> The topic appears in: “Lección primera: extensión geográfica del territorio de Chile” (pp. 32-33); “Lección sexta: sobre la población de Chile” (pp. 66-67); and “Lección noventa y cuatro: medida de La Cañada y de sus calles australes hasta donde se hallan pobladas” (pp. 512-513); the recommendations regarding demographic matters are in “Lección ciento: trátase de las causas de nuestra despoblación y de los medios convenientes para repararla con utilidad del Estado” (pp. 561-583).



Department of Santiago in 1830, inserted in a statistical table along with figures on education and charity institutions, convents and monasteries.<sup>90</sup>

Similar to *El chileno instruido*, the *Repertorio chileno. Año de 1835* by Fernando Urizar Garfias, also had the objective to instruct the population on the general situation of the country, although in an abbreviated and portable format (his text did not exceed 250 pages while Guzmán's had almost 1,000).<sup>91</sup> Far from the monumentality of topographical descriptions, Urizar's work was closer to descriptive statistics. It is revealing that he himself located his work in that field.<sup>92</sup> In terms of structure, the work follows at various points the model proposed by Egaña in his *Almanak*, especially in its historical sections and the detail with which it describes the system of government; however, it was better in approaching trade and productive activities. In another similarity with *El chileno instruido*, the *Repertorio chileno* also had cosmopolitan aspirations, but of a more prosaic scope: aside from providing information, the text sought to encourage the coming of foreigners who would be "useful" to the homeland for their knowledge, trade, or financial power. With that intention, Chile was presented as "a virgin country, favored with a benign climate, rich in natural resources for the industrious man, inhabited by people of a soft and hospital character (...), governed by Liberal institutions that [offered] as many guarantees as [it could be] craved regarding the safety of the people and their properties." Apart from the minutiae and the promotional intentions of the text, the compilation and systematization of data heretofore scattered confirmed the relevance of projects like Urizar's. Indeed, the essays on general administration and the statistical descriptions of each province, the most intensely scrutinized issues of the book, certainly achieved to give readers a satisfactory overview of the

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<sup>90</sup> The charts appear in "Lección noventa y cuatro" (pp. 512-513). Both the census of the Department of Santiago of 1830 and Humboldt's calculations had been published in *El Araucano*, Santiago, December 25, 1830.

<sup>91</sup> Born in 1804 and educated in the *Colegio Carolino* and the Royal University of San Felipe, Fernando Urizar Garfias began his bureaucratic career as Secretary of the Municipality of Santiago, Secretary of the Senate and higher official of the Ministry of the Interior. He also served as Secretary of the Minister Diego Portales, Intendant of Aconcagua and congressman in different periods. Virgilio Figueroa, *Diccionario Histórico, Biográfico y Bibliográfico de Chile 1800-1928*, vol. V, p. 933-934 and Jordi Fuentes, Lía Cortés, et al., *Diccionario histórico de Chile*, p. 597.

<sup>92</sup> At the time of exposing the reasons that had led him to write, Urizar said "that coming to perfect this work successively with a complete report on the statistics of the country, on its consumptions, and on other many important and curious branches," he hoped that the *Repertorio* developed into "a rich deposit of knowledge pertaining to our resources, needs, institutions, morality, and relationships with the other powers of the Earth," serving in this way as a "point of comparison with the progress we make each year." Fernando Urizar Garfias, *Repertorio chileno. Año de 1835* (Santiago: Imprenta Araucana, 1835), pp. i-ii.

progress of the Republic, consolidating in turn a documentary body that could serve as reference for future comparisons.<sup>93</sup>

Urizar also recorded demographic estimates in his work, but much more accurate than Guzmán's. Far more than from the virtues of the compiler, such accuracy stemmed from the inclusion of the results of the abovementioned 1835 census, which was conducted between 1831 and 1834 through partial and successive counts. The project for this operation had been approved at the beginning of 1831 by the newly inaugurated government of Joaquín Prieto after the Civil War of 1829-30. In the first part of the registration only four provinces were fully covered, Chiloé, Valdivia, Concepción, and Maule, plus the Department of Santiago.<sup>94</sup> However, as some articles in *El Araucano* noted, several provinces persevered in the organization of local research in order to collect data for internal administration and to meet the demands of the central power. In December 1834, when the tensions generated by the conservative rebellion had diluted, the government insisted on resuming the census. Just at that moment it was possible to enumerate the remaining provinces. The effectively registered population of the country reached 1,010,336 inhabitants, excluding the indigenous of Arauco. Aware of the weaknesses of the operation, Urizar advised adding 10% to that figure (101,034) to include the population that evaded registration, the inhabitants of areas not covered by the census-takers, and to compensate mismatches derived from the interval between the counts. With this correction, the total reached 1,111,370 inhabitants, lower than Humboldt's estimates.<sup>95</sup>

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<sup>93</sup> Urizar Garfias, *Repertorio chileno...*, pp. i-iii. Although I have not detected the existence of translations (as would occur with similar works in the second half of the nineteenth century), the promotional character of the text seems confirmed by several sections: system of customs and warehouses, with emphasis on port and import fees; status of foreign residents, requirements for nationalization, processing of wills and management of industrial patents; description of the system of coins, weights and measures, with their equivalents abroad; and list of diplomatic agents of Chile abroad and of foreign representatives in Chile. In his introduction to the 1986 edition of the *Ensayo sobre Chile*, published originally in 1857 by Vicente Pérez Rosales to make propaganda and attract immigrants, historian Rolando Mellafe made reference to the *Repertorio chileno* as one of the rare bibliographic precedents of Pérez's work. Vicente Pérez Rosales, *Ensayo sobre Chile*. Introduction and notes by Rolando Mellafe (Santiago: Ediciones de la Universidad de Chile, 1986).

<sup>94</sup> Along with the five departments of the Province of Santiago that were not counted (Valparaíso, Rancagua, La Victoria, Casablanca and Melipilla) were the provinces of Talca, Colchagua, Aconcagua and Coquimbo, i.e., more than a half of the administrative units of the country.

<sup>95</sup> For this reconstruction I have followed Ramón Sotomayor Valdés, *Historia de Chile bajo el gobierno del Jeneral Don Joaquín Prieto* (Santiago: Imprenta "Esmeralda," 1900), vol. I, pp. 451-454 and Mellafe, *op. cit.*, pp. 21-21. The 10% rate of omission is still used by scholars when dealing with censuses of the first half of the nineteenth century. See Carlos Contreras y Eduardo Cavieres, "Políticas fiscales, economía y crecimiento," in Eduardo Cavieres and Carlos Aljovín (eds.), *Chile-Perú, Perú-Chile: 1820-1920. Desarrollos políticos, económicos y culturales* (Valparaíso: Ediciones Universitarias de Valparaíso, 2005), p. 193. See also Markos Mamalakis, *Historical Statistics of Chile. Vol. 2: Demography and Labor Force* (London: Greenwood Press, 1980), p. 10.

This census was the first relatively successful operation after the one of 1813. I insist on this because the census of 1835 represents the last stage of several previous (and failed) attempts to produce an updated demographic cadaster. One of the first attempts at applying a census appeared in a decree from May 1818, just after the Independence, signed by then-Supreme Director Bernardo O'Higgins. The plan entailed the creation of a commission to draft a provisional constitutional rule to govern until reinstalling the National Congress. Referring to the military coup led by José Miguel Carrera in 1811, and as a way of avoiding that the reorganization of that body awoke new disagreements, all provinces were ordered to form the census of their population to proceed to the election of representatives.<sup>96</sup> A second project dates back to 1822 and was organized due to (once again) conflicts on political representation, but also in response to a smallpox epidemic that whipped up the need to know the impact of the disease and the number of vaccinated people. The province of Santiago was the first (and apparently the only) to meet the request. The count was described as "imperfect" and "little accurate," but anyway it was decided to send it to the rest of the administrative units to offer "a rough idea" of the purpose of the operation.<sup>97</sup> Apparently the example was not convincing, because there are no records of equivalent enumerations in other provinces. However, in order to explain the failure to comply with the order, it is fair to consider the consequences of the earthquake that struck the central provinces in November 1822.

The idea of a census reappeared in 1824. This time the preparations followed three criteria: a) the basic unit of enumeration would be the parishes, and later those totals would be recalculated by districts, delegations, and provinces, being indispensable to have a map that allow to territorially organize the operation; b) the census would be applied on a single day throughout the country, thus meeting the ideal of simultaneity; and c) in order to ensure the uniformity in the data-gathering process, census-takers would use standardized forms. One of these forms was, strictly speaking, a card of registration in which the age (divided into blocks), sex, civil status, literacy, caste, origin (in the case of non-naturalized foreigners) and the situation regarding smallpox (vaccinated, unvaccinated, having suffered) of each respondent should be

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<sup>96</sup> "The censuses of the provinces are to be taken to attach their representation to the number of their inhabitants, thus ensuring that disorder, caprices, or gross injustice do not become the pillar of our legislation." Decree of May 18, 1818, *Gazeta Ministerial de Chile*, no. 41, Santiago, May 23, 1818, pp. 1-3.

<sup>97</sup> SCL, session 4, August 1, and session 8, August 7, 1822, pp. 41-43 and 56, respectively; also Mellafe, *op. cit.*, p. 21.

recorded. Two other forms were intended to record the vegetative growth of the population on the basis of the information contained in parochial registries.

Despite the meticulous planning, the beginning of the operation was delayed repeatedly. This was due in part to the difficulties faced by each province when preparing local maps (it should be recalled that the first mapping of the country produced under scientific criteria appeared only in the 1850s); another reason, according to the testimony of several intendants, was the lack of qualified personnel to carry out the operation. The initiative was resumed in January of the following year, when the representative of Illapel, Juan José Echeverría, also a member of the Committee on Agriculture, Industry, Commerce, Mines and Statistics, presented a new project to apply a population census on the need to solve pressing problem of parliamentary representation. Thus he proposed Congress to form an *ad-hoc* commission responsible for preparing the operation. The proposal passed to the Commission of Government, where it was decided to ask the Ministry of Interior a copy of the 1813 census to study it as a model. On the news that the document was not in that office –“it is likely that it was delivered to the flames, as were countless documents and all secretarial papers, when the enemy took over the country in 1814 [sic],” was the reply– Congress decided anyway to approve the project organizing the commission requested by Echeverría.<sup>98</sup>

The weight of the bureaucratic inertia was considerable. Echeverría’s plan did not come to fruition and the idea of a census reappeared in 1828. Senator Manuel Antonio González, who also was involved in the Committee on Agriculture, Industry, Commerce, Mines and Statistics, sponsored the motion this time. Attuned with the prevailing decentralizing trends, his proposal entrusted the municipalities with the execution of the census. Each one had to choose an official, assisted by a priest and the district judge, or the district inspector if the former were unavailable, to supervise the work in each of the local parishes. The form was simpler, registering only name, sex, civil status, birthplace, and domicile of each one registered. Considering that the count would be the basis for defining representation quotas, the proposal included, in a suggestive twist, that villages that would feel aggrieved with the results could raise a claim to Congress and present a revised registry of their inhabitants. This project also never materialized.<sup>99</sup>

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<sup>98</sup> The details of the legislative procedure can be followed in SCL, sessions 43, January 25, 46, January 31, 56, February 25, 57, March 4, and 58, March 7, 1825, vol. X (Santiago: Imprenta Cervantes, 1890), pp. 337, 355 and 450-451 and vol. XI (Santiago: Imprenta Cervantes, 1889), pp. 16 and 27.

<sup>99</sup> SCL, Senate, session 21, October 15, 1828, vol. XVI (Santiago: Imprenta Cervantes, 1893), pp. 361-362.

Of all these unfinished attempts, the most relevant was the one of 1824, whose forms were recycled in 1831 for the work that eventually led to the census of 1835. But that retrieval was performed after introducing a major modification: the classification by caste was removed, which meant a break from the colonial way of counting. What was the course of this transition?

In the census of the government of Agustín de Jáuregui between 1777 and 1778, the population of the country was divided into four categories: *white*, *mestizo*, *indian* and *black*. In the 1813 census the distinction became more sophisticated defining two major groups broken down into subcategories. The first group contained those previously classified as *white*, who now were divided into *Spanish* and *foreign European*. The *Spanish*, in turn, were divided into three types: *Spanish American*, *European Spanish*, and *Asian, Canary Islanders and African Spanish*. The second group was that of *castes*, subdivided into *indian*, *mestizos*, *mulatto* and *black* [figure 1.2].

## CENSO DE TERRITORIO

### DISTRITO DE LA DIPUTACION DE MAIPO, EN LA PROVINCIA DE RANCAGUA

Casados	Solteros	Viudos	Casadas	Solteras	Viudas	Total de Hombres	Total de Mujeres	Total de Almas
355	716	23	355	864	35	1.094	1.254	2.348

#### EIDADES

De 1 día a 7 años		De 7 a 15		De 15 a 30		De 30 a 50		De 50 a 100	
Hombres	Mujeres	Hombres	Mujeres	Hombres	Mujeres	Hombres	Mujeres	Hombres	Mujeres
299	339	243	298	238	382	237	186	77	49

#### ORIGEN Y CASTAS

Españoles Americanos		Españoles Europeos		Españoles Asiáticos, Canarios y Africanos		Europeos Extranjeros		Indios	
Hombres	Mujeres	Hombres	Mujeres	Hombres	Mujeres	Hombres	Mujeres	Hombres	Mujeres
874	967	1	1					65	80
Mestizos		Mulatos		Negros		Total de Españoles y Extranjeros Europeos		Total de Castas	
100	156	54	50			875	968	219	286

#### PROFESIONES

Párrocos	Clérigos	Religiosos	Religiosas	Hacendados y Proprietarios Rústicos	Labradores inquilinos	Jornaleros	Artesanos
1		4		37	184	77	9
Comerciantes	Milicianos de Caballería	Milicianos de Infantería	Seculares exceptos de la Milicia por empleos o privilegios, capaces de tomar las armas	Profesores Literarios y Estudiantes	Peones y Sirvientes de Minas	Criados libres	Esclavos
9	93	80	26		2	112	7

#### CASAS DE OBJETOS PUBLICOS

Iglesias	Conventos y Monasterios	Cárceles y Casas de Corrección	Hospitales, Hospicios y Casas de Expósitos	Fábricas
Parroquia 1	De con Religiosos De con Religiosos De con Religiosos De con Religiosos	Individuos	Individuos	Molinos de Pan . . . . . 4

Clases de artesanos.—Carpinteros, 3; Pintores, 1; Herreros, 1; Zapateros, 2; Sastres, 1; Carniceros, 1. Total de artesanos: 9.

Diego de Valenzuela.

Figure 1.2 Form of the 1813 census differentiated by caste [*Origen y castas*]. Source: National Archive, *Censo de 1813*, s.p.

The careful distinction in the old group *white* was an expression of the weight the image the Spanish Monarchy bore in the minds of the enumerators. Despite the political ups and downs of the first autonomous governments and their conflicts with the Spanish Courts, the Chilean

government was established to preserve the rights of Fernando VII, and therefore the country remained tied to the metropolis. The same logic explains the distinction between *Spanish* and *European foreigners*. The subdivision of the first crisscrossed political filiation and territorial origin: although all came from different latitudes (*American, European, Asian, Canaries* and *African*), in the bottom line they counted as subjects of Spain. Conversely, all non-Spanish Europeans were recognized as foreign, although without specifying nationalities. Regarding the rest of the population, namely *non-white*, the phenotypic variable prevailed, expressed in the idea of *caste*.<sup>100</sup> The form of 1824 maintained the phenotypic classification but with updates. As in the new political context the monarchical distinctions of yesteryear did not fit anymore, now all the *whites* were subsumed under the same label.<sup>101</sup> Among the remaining categories there were changes too: where before was the mestizo, now was the Chinese. Mestizos were deleted. The only group where mix was recognized was the mulatto.<sup>102</sup>

It is tempting to consider the elimination of the caste division as an important step toward the construction of a national imaginary. The census, the official register, would thus appear as effective devices of Republican equalization. But it is known that the formal disappearance of an official category does not entail the disappearance of the social meaning tied to it. On the contrary, the key forms of distinction and exclusion, their practices and habits, proved recurrently the limits both of that fiction as of the homogenizing rhetoric of civic republicanism.<sup>103</sup> Similar resistance was found against efforts to impose new forms of identification. So it happened with the use of the demonym “Chilean,” declared mandatory for official documents in June 1818 and which entered in 1843 into the census forms.<sup>104</sup> In a document as late as the introduction to the 1854 census, it was stated that neither enumerators nor respondents seemed to understand the question about nationality, since there were several forms where inhabitants, rather than identifying themselves as Chilean or foreigners, were

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<sup>100</sup> Estefane, *op. cit.*, pp. 56-57.

<sup>101</sup> The form also contemplated a column for *non-naturalized foreigners*, opening space for recording their nationality, but restricted to English, French and Italian.

<sup>102</sup> On the implications of this negation, see the final section of Araya, “Registrar a la plebe o el color de las castas...,” p. 356.

<sup>103</sup> On the tensions between the homogenizing discourse of the nascent Latin American republics and administrative practices like censuses that reproduced the ethno-racial distinctions of the Colonial period, see Mara Loveman, *National Colors. Racial Classification and the State in Latin America* (New York: Oxford University Press, 2014), pp. 79-120.

<sup>104</sup> The Decree of the demonym was enacted on June 3, 1818 with the signature of Bernardo O’Higgins and published on the 20th day of that month in the *Ministerial Gazette of Chile*, N° 45, Santiago, p. 3. Its use was also extended to the Arauco Indians.

assigned to a department, province, subdelegation, district, and even the *hacienda* where they were born.<sup>105</sup>

The results of the 1835 census were received with suspicions by the national authorities. In his report to the National Congress, Minister of the Interior Joaquín Tocornal regretted not being able to deliver reliable news on the progress of the country due to the imperfect implementation of the census. Indeed, as the details of the enumeration did not inspire “sufficient confidence,” he ordered a thorough review to correct it before submitting it to the public.<sup>106</sup> Practically none of the inquiries of the 1830s elicited enthusiasm among the authorities. The only experience that drew some praise was directed by the Central Board of the Cadaster, a commission created in October 1831. The task of this Board consisted in collecting information on the income of rural properties (rustic farms) to set the “cadaster” or “territorial contribution,” the first direct tax that was established in Chile.<sup>107</sup> The investigations were developed by smaller commissions, organized at departmental and district level and compounded by notable neighbors of each locality. Their reports, which began to be received from 1832, showed unprecedented signs of uniformity, speed and coverage for the time.<sup>108</sup> In fact, by the middle of the following year all provinces of the country had already remitted their “statistical data,” allowing authorities to suspend some taxes that would be replaced by the resources from the cadaster.<sup>109</sup> But not much time should pass until all that had been praised was thrown into doubt. The accumulation of complaints for inaccurate or shoddy appraisals (that were usually detrimental to smaller owners, precisely those who had not been part of any commission) and the low income derived

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<sup>105</sup> *Censo Jeneral de la República de Chile levantado en abril de 1854* (Santiago: Imprenta del Ferrocarril, 1858), p. 1.

<sup>106</sup> “Memoria que el Ministro de Estado en el Departamento del Interior presenta al Congreso Nacional. Año de 1835,” in SCL, Senate, session 28, August 28, 1835, vol. XXIII, p. 413. This census was never printed. Apart from the publication of some departmental summaries in *El Araucano* that same year –Melipilla and Valparaíso (May 22), Rancagua (June 12), Casablanca (November, 27)– only its general results circulated, first in Urizar’s *Repertorio chileno* and later in the geographic section of the *Revista de la Guerra de Independencia de Chile* by colonel José Rodríguez Ballesteros in 1851. See *Colección de historiadores y de documentos relativos a la Independencia de Chile. Tomo V. Revista de la Guerra de la Independencia de Chile por José Rodríguez Ballesteros* (Santiago: Imprenta Cervantes, 1901), pp. 162-163.

<sup>107</sup> Isaías Cattaneo, “Los impuestos fiscales a las rentas agrícolas en el siglo XIX,” *Memoria para optar al grado de Licenciado en Ciencias Jurídicas y Sociales*, Universidad de Chile, Santiago, 2013.

<sup>108</sup> These forms can be seen in AN, Dirección General de Estadísticas, vols. 1 to 6.

<sup>109</sup> SCL, Plenary session, June 1, 1833, Vol. XXI, p. 386.



from the tax (something that doubled the suspicions about the work of the commissioners) led the authority to organize new research to reassign the loads of this tribute.<sup>110</sup>

The 1830s offered an unfavorable setting for the production of statistics. Tensions arising from the purges that followed the Civil War of 1829-30 continued through the systematic harassment of any kind of opposition on the part of the triumphant forces. Later on the war against the Peru-Bolivian Confederation (1836-1839) brought about deep conflicts inside the elite, in the middle of which Minister Diego Portales (1837), the strongman of Conservative authoritarianism, was assassinated.<sup>111</sup> The impossibility to strengthen a legitimate political control was seen as a result of serious shortcomings in the interior administration regime. This diagnosis prepared the ground for a series of bureaucratic reforms that pointed to refine State action and reinforce its territorial presence. This explains, in part, measures such as the enactment of the first Organic Law of Ministries, on February 1837, which structured organically and functionally the work of the four existing secretariats, and the determination of the requirements for joining civil administration.<sup>112</sup>

In what pertains to the production of statistics, the Organic Law of Ministries attached to the Ministry of Interior the “development and maintenance of statistics and public economy,” sanctioning thus an administrative dependency that was kept during the entire nineteenth century. Of course, this norm did not imply an immediate reversal of the practical problems that affected the statistical work. Some of them were due to fissures within civil administration. “The local administration of our peoples,” pointed out the Minister of Finance in 1839, “is not yet to such a degree of perfection that it can supply to the government the statistical data needed to form an accurate judgement.” But it also had to do with the critical situation of the ecclesiastical administration, where the lack of well-prepared priests affected the quality of vital records.<sup>113</sup>

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<sup>110</sup> “Memoria que el Ministro del Despacho en el Departamento de Hacienda presenta al Congreso Nacional de 1839,” in SCL, Senate, session 10, July 15, 1839, vol. XXVI, p. 81.

<sup>111</sup> Gabriel Cid, *La guerra contra la Confederación. Imaginario nacionalista y memoria colectiva en el siglo XIX chileno* (Santiago: Ediciones UDP, 2011).

<sup>112</sup> The four ministries sanctioned by the law of 1837 were Interior, Justice, Finance, and War. The requirements to enter the State administration were set on February that same year. See Germán Urzúa Valenzuela, *Evolución de la administración pública chilena (1818-1968)* (Santiago: Editorial Jurídica de Chile, 1970), pp. 60-65.

<sup>113</sup> On the state of the national parishes, “Memoria que el Ministro de Estado en el Departamento del Interior presenta al Congreso Nacional. Año de 1835,” in SCL, Senate, session 28, August 28, 1835, vol. XXIII, p. 417-418. Regarding problems in the civil administration, “Memoria que el Ministro del Despacho en el Departamento de Hacienda presenta al Congreso Nacional de 1839,” in SCL, Senate, session 10, July 15, 1839, vol. XXVI, pp. 81-82; and “Memoria que el Ministro del Despacho en el Departamento del Interior presenta al Congreso Nacional de 1839,” in SCL, Senate, session 19, August 28, 1839, vol. XXVI, pp. 380-381.

Although important, administrative problems were not the only ones that blocked the production of this type of knowledge. Other issues, like the numerical literacy of the population, also arose as part of the practical limits to be considered on part of the State.

#### 1.6. Reading, writing and counting

In the forms of the failed 1824 census, in the literacy section, a peculiar question was included. Apart from investigating what might be expected, that is, how many people read, how many could write and how many managed both skills, the authority also wanted to know how many could count. There are no records that the question of the acquisition and use of mathematical skills has appeared in subsequent Chilean censuses. This would be a sort of forgotten question. What we do know is that this was not an exceptional concern in Latin American in the early nineteenth century. A statistical description of the district of Tulancingo, Mexico, published by Francisco Ortega in 1825 attests it. In the table referring to elementary schools, and along with the total number of students by village, hacienda or ranch, it has to be registered the type of instruction they received, distinguishing those students who were trained in doctrine from those who learned to read, write, and count [figure 1.3].<sup>114</sup>

The question of the census of 1824 points to a relevant subject for the history of statistics and its legitimacy as an instrument of description and social planning: the level of familiarity of Chilean citizens with numerical language. Put in those terms, the problem amplifies what conventionally is understood by “literacy” (usually restricted to the ability to read and write) and its relationship to the idea of citizenship. It also poses important questions about the stages of acclimatization of a knowledge, like mathematics, which has operated as one of the great tools of political persuasion in modern societies.<sup>115</sup>

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<sup>114</sup> Francisco Ortega, *Ensayo de una memoria estadística del Distrito de Tulancingo, impreso de orden del Exmo. Sr. Gobernador del Estado* (México: Imprenta del ciudadano Alejandro Valdés, 1825), annex No. 5, p.s.

<sup>115</sup> Pierre Bourdieu, *Sur l'État, Cours au Collège de France (1989-1992)* (Paris: Raison d'agir/Seuil, 2012), p. 38. The expansion of the numerical language also enables the operation of basic social conventions, like a metric system. A good example of this use is Héctor Vera, *A peso el kilo. Historia del sistema métrico decimal en México* (México: Libros del Escarabajo, 2007).

Núm. 5.

Estado de las escuelas de primeras letras del Distrito de Tulancingo, con expresion del número de niños que se enseñan y clases en que se hallan.

Nombres de los pueblos, haciendas y ranchos.	Escuelas.	Número de niños.	Aprendido de solo doctrina.	Clases.		
				Leyendo.	Escribiendo.	Contando.
Tulancingo.	1.	178.		114.	031.	033.
Singuilucan.	1.	068.	020.	042.	006.	
Santiago.	1.	005.		005.		
Metepc.	1.	031.	011.	015.	004.	
Acatlan.	1.	046.		046.		
S. Antonio.	1.	009.	009.			
Santa Ana.	1.	050.	043.	007.		
Santa María Nativitas.	1.	040.	025.	012.	003.	
Santa María Asuncion.	1.	010.	017.	003.		
Acaxochitlan.	1.	054.		037.	017.	
Huascaloya.	1.	025.		019.	006.	
Atotonilco el grande.	1.	071.	006.	039.	016.	
Terengo.	1.	060.	007.	043.	010.	
Pachuca.	3.	133.	016.	055.	053.	008.
Mineral del Monte.	1.	087.	023.	060.	004.	
Id. del chico.	1.	043.	010.	019.	009.	005.
Id. Omítlan.	1.	032.	009.	019.	004.	
Tizayuca.	1.	076.	018.	038.	010.	010.
Teczontepec.	1.	041.	008.	026.	007.	
Tolcayuca.	1.	014.	007.	005.	001.	
S. Pedro Huquilpan.	1.	035.	005.	015.	005.	
Acayucan.	1.	017.	007.	010.		
Pachuquilla.	1.	016.	012.	010.		
Azeyuala.	1.	018.	009.	007.	004.	
Zempeala.	1.	064.	026.	018.	001.	001.
S. Gabriel.	1.	064.	018.	036.	019.	
Santo Tomás.	1.	038.	017.	015.	006.	
S. Mateo.	1.	013.	006.	014.	003.	
Santis María Tecajete.	1.	012.	004.	000.	001.	
Epazayuca.	1.	031.	012.	016.	004.	
Santa Mónica.	1.	023.	008.	013.	001.	
San Juan Tezahupan.	1.	019.	019.			
S. Agustín.	1.	015.	009.	006.		
Santiago Tepeyahualco.	1.	027.	019.	006.	001.	
Tlaquilpan.	1.	039.	029.	008.	001.	
S. Antonio Hontoyucan.	1.	014.	014.			
S. Juan Tepamasaleo.	1.	017.	017.			
Apan.	1.	108.		100.	008.	
Almoloya.	1.	058.	020.	031.	007.	
Hacienda de Ocoatepec.	1.	020.	004.	015.	001.	
Id S Antonio.	1.	027.	012.	013.	001.	
Id. Chimalpa.	1.	010.	010.			
Id. de la Laguna.	1.	037.	026.	011.		
Id. Alcastarilla.	1.	011.	006.	006.		
Id. Castalco.	1.	010.	010.			
Id. Huahuatoca.	1.	008.	008.			
Id. Tetlapaya.	1.	004.	004.			
Id. Tlalayote.	1.	023.	014.	006.	003.	
Id. San Juan.	1.	020.	010.			
Rancho de Teoyucon.	1.	006.	006.			
Id. la Presa.	1.	007.	006.	001.		
Rancho de Tepozan.	1.	002.	001.			
Id. el Rincon.	1.	008.	008.			
Id. S. Diego.	1.	001.	001.			
Pueblo de Tepapulco.	1.	097.	001.	076.	019.	
Id de Tlanalapa.	1.	048.	032.	014.	001.	
Hacienda de Chiconcuatla.	1.	039.	009.	010.		
Id. de Bella Vista.	1.	013.	004.	018.	001.	
Rancho de los Sides.	1.	042.	030.	011.		
Id. Corralillos.	1.	018.	001.	011.		
Hacienda del mal País.	1.	033.	026.	007.		
Id. de S. Lorenzo.	1.	011.	011.			
Id. de Tepetaten.	1.	009.	004.	005.		
Id. de S. José.	1.	002.		001.		
Id. de S. Pedro.	1.	010.	001.	007.	001.	
Totales.	66.	1255.	741.	1171.	184.	58.

Figure 1.3 Summary of elementary schools in the District of Tulancingo, Mexico. Source: Francisco Ortega, *Memoria estadística del Distrito de Tulancingo*, 1825, anex no. 5, s.p.

“Numerical literacy” or “numerization” embrace skills that range from the ability to count or perform simple mathematical operations establishing basic quantitative relationships, to the resolution of complex problems through sophisticated calculations, resulting in some

theoretical knowledge. The question of the 1824 census and that of the statistics of Tulancingo pointed to the former, that is, to determine who was capable to perform simple math operations. How were those skills acquired? The extant literature links this type of skills to three instances: a) formal education that prepares people to become relatively familiar with numerical language and quantitative reasoning; b) the expansion of the market, that converts the handling of numbers and mathematical operations into central inputs for commercial activities, and c) the expansion of governmental bureaucracies that bring with them statistics, taxes, population censuses, vital records, among other documents of numeric character.<sup>116</sup>

The historic role of State bureaucracies and in particular of statistics in the diffusion of numerical language has been studied for colonial and metropolitan contexts. The works by Bernard S. Cohn and Arjun Appadurai have explored this connection for India, splicing it with processes like the objectification of the caste system or the attempts of colonial resignification of the numerical information collected by Imperial agents.<sup>117</sup> Referring to metropolitan contexts, Ian Hacking entered the debate identifying a period he called the “avalanche of printed numbers” (1820-1840), when social research reached proportions unknown in Europe. The first attempts at counting would have been difficult, points out Hacking, mainly because not all knew how to do it correctly. In any case, the key of the period did not lie in numerical explosion, but rather in that this avalanche installed new ways of conceiving and categorizing the social.<sup>118</sup> Alain Desorières also emphasized the growing use of math tools, although in relation to a different problem: the different connotations in the use of the word “statistics.” If at times the word was used to refer to a mere description based on quantitative references, an interpretation that stress the political-administrative inclination of this knowledge, in others it meant “method, mathematical formalism and a way of reasoning,” a sense closer to the professionalization of this knowledge.<sup>119</sup>

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<sup>116</sup> In this useful characterization I follow Rebecca Jean Emigh, “Numeracy or Enumeration? The Uses of Numbers by States and Societies,” *Social Sciences History* 26: 4 (2002), p. 657.

<sup>117</sup> Cohn, *op. cit.*; Arjun Appadurai, *Modernity at Large: Cultural Dimensions of Globalization* (Minneapolis: University of Minnesota Press, 1996), pp. 114-135.

<sup>118</sup> Ian Hacking, “Biopower and the Avalanche of Printed Numbers,” *Humanities in Society* 5 (1982), pp. 279-295. His intervention came to modify the classical chronology established by Harald Westergaard, who had set the “era of enthusiasm” for statistics between the decades of 1830 and 1850. Harald Westergaard, *Contributions to the History of Statistics* (London: P.S. King, 1932).

<sup>119</sup> Alain Desorières, *The Politics of Large Numbers. A History of Statistical Reasoning* (Cambridge: Harvard University Press, 1998), 324-327.

Exploring the case of rural Tuscany from the Middle Ages to the beginning of the modern era, sociologist Rebecca Emigh proposed an interpretation that opens a new analytical route. Instead of explaining the process of numerization from the intervention of the State and its bureaucracy, Emigh suggests an approach “from below,” highlighting to the role of society and its daily repertoire of knowledge. Her study proposes that gathering quantitative information on the part of the State would not necessarily be the beginning of the relationship of individuals to numbers. It would rather be a response of society to previous experiences of numerization. This way, the authorities would not do more than taking advantage of a pre-existing link, developed in everyday practices like commercial transactions, lease of goods, calculation of inheritances and management of budgets. Neither instruction nor bureaucratic contact would then have been essential to the prevalence of this knowledge.<sup>120</sup>

It is difficult to project an interpretation as Emigh’s onto the case of Chile in the early Republic. Indeed, available testimonies tend to suggest that enlightened citizens –those involved in business and readers of newspapers– had a distant relationship with numerical language. Historian Gabriel Salazar’s reflections concerning the practices of eighteenth- early nineteenth-century merchants suggest an informal or sporadic use of numerical language in their activities. Although it would be needed more research to confirm the regularity of the phenomenon, it was unusual at the time to maintain account books or rigorous accounting. For this reason, it was not strange that a prestigious merchant did not know the real scope of his patrimony.<sup>121</sup> In that context it makes sense that at the end of the Colonial period several projects of commercial instruction circulated, offering traders the chance to learn to maintain account books and assimilate to basic notions both of spelling and mathematics.<sup>122</sup> The same applies to the fact the several youths skilled in mathematics amassed small fortunes at the beginning of the nineteenth century by working as administrators of outside capitals.

The gap between citizens and numbers was also a subject of discussion in the political field. Actually, it was considered a factor that could erode the legitimacy of the Republican

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<sup>120</sup> Her aim is not to invalidate the idea that numerical literacy can be a process driven “from above,” but rather seeks to situate it in a context of greater interaction between State and society. Thus, Emigh updates a central thesis in the literacy literature –according to which there is a universal path for this process– and does extend it to the numerical field. Emigh, *op. cit.*

<sup>121</sup> Gabriel Salazar, *Mercaderes, empresarios y capitalistas (Chile, siglo XIX)* (Santiago: Editorial Sudamericana, 2009), pp. 23, 29 and 38.

<sup>122</sup> See, e.g., “Carta de Manuel Martínez Farías a Manuel de Salas proponiéndose como docente para un plan de instrucción mercantil,” AN, Fondo Antiguo, vol. 24, doc. 30, ff. 196-197v.

agenda, especially when the discussions revolved around the administration of fiscal resources. Although the authorities sought to publicize fiscal numbers, it did not serve if the measure was not accompanied by a pedagogical effort to simplify such reports. “The reader sees numbers, items and results; cannot form a regular judgment because doesn’t know the accounting method; and when judge, is completely wrong, as will not know how to distinguish the effective from the imaginary items,” so the problem was addressed by a newspaper of Santiago in 1827. Simplifying the diffusion of this type of reports was a key question now that the people took part “in all the affairs of the administration.” Otherwise it would do nothing but fomenting among the people the “suspicions of mismanagement of their interests, which are always applauded.”<sup>123</sup>

Such diagnosis tends to coincide with the local history of mathematics, a socially dismissed knowledge at the beginning of the Republic. During the eighteenth century, and as in the rest of the continent, the cultivation of math had an eminently practical sense (land surveys, accounts of the Royal Treasury, navigation, artillery, public works) and was mainly concentrated among military engineers. There were two education institutions that taught it: the Royal University of San Felipe (1747) and the Royal Academy of San Luis (1797). At the University, mathematics classes were inaugurated in 1758, but the discipline did not arouse great enthusiasm among the students. The social recognition of mathematics was low in comparison to most reputed disciplines, like philosophy, law or theology.<sup>124</sup> Indeed, more than once the course did not have any students enrolled. Likewise, the lack of teachers obstructed the consolidation of the field and delayed the constitution of a teaching tradition.<sup>125</sup> The situation began to change relatively after the creation of the Royal Academy of San Luis, which counted on a Professor of Mathematics from 1799 and began to compete with the offer of the University.<sup>126</sup> The few students who were interested in the subject chose to pursue it in the new institution and before

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<sup>123</sup> *La Aurora*, Santiago, June 30, 1827.

<sup>124</sup> According to the information consigned by José Toribio Medina in his *Historia de la Real Universidad de San Felipe*, in its eight decades of operation (1757-1839) the institution granted 620 degrees in philosophy, 569 in theology, 526 in law, 38 in medicine and 40 in mathematics. The calculation was done by Sol Serrano, Macarena Ponce de León and Francisca Rengifo, *Historia de la educación en Chile. (1810-2010). Tomo I. Aprender a leer y escribir (1810-1880)* (Santiago: Taurus, 2012), p. 60.

<sup>125</sup> Roberto Hernández, “Chile conquista su identidad con el progreso. La enseñanza de las matemáticas, 1758-1852,” *Historia* 23 (1998), pp. 137-140.

<sup>126</sup> The establishment of the Royal Academy of San Luis was sponsored by Manuel de Salas, one of the main promoters of Enlightenment ideas in the country. The text that proposed the organization of this academy, exposing the need of foster mathematical education, dates from December 1795: “Representación al Consulado sobre la necesidad de establecer un aula de matemáticas,” in *Escritos de don Manuel de Salas y documentos relativos a él y su familia* (Santiago: Imprenta Cervantes, 1910), vol. 1, pp. 567-568.

long its graduates began to apply for the unattended position at the Royal University. After Independence, the teaching of mathematics was concentrated at the National Institute (1813), whose courses were taught by self-trained instructors. Only after the arrival of the Spanish engineer Andrés Gorbea, hired by the government in 1826, the discipline began its process of professionalization. Actually, Gorbea would play an important role in the reorganization of the Faculty of Physical Sciences and Mathematics at the University of Chile and in the formal teaching of engineering from 1853 onwards. The lack of prestige of the discipline, however, lasted well into the nineteenth century.<sup>127</sup>

The absence of an important pedagogical tradition and the scarce familiarity of citizens with the numerical language reinforce the impression that, at least in the case of Chile, the State and its bureaucracy constituted crucial agents for the mathematization of political debates and the pedagogical development of statistics. Although it would be senseless to discard the cumulative effect of formal education and the experience of military agents and parishes, the weight of the production of this knowledge fell mostly on civil and ecclesiastical actors installed in or linked to the State bureaucracy. Unlike other cases, like the Mexican one, where the military were important actors in the takeoff of this science, the onset of statistics in Chile was a domain eminently civil and ecclesiastical.<sup>128</sup> The latter, churchmen, exerted an influence similar to that of the State bureaucracy. Although their objective was restricted to count souls and administer sacraments, the numerization and the systematic use of mathematics also fostered important changes in the format of the religious records, especially from the second half of the eighteenth century on.<sup>129</sup> In any case, the gap between citizenship and numerical language (or between citizenship and statistics) was a major challenge for Chilean authorities over the nineteenth century. On it depended not only the reception and circulation of public numbers, but also the normalization and professionalization of the production of official figures. The problem of the production and consumption of numerical information and the establishment of an

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<sup>127</sup> On the development of mathematics teaching at higher level, Sol Serrano, *Universidad y Nación. Chile en el siglo XIX* (Santiago: Editorial Universitaria, 1994), pp. 204-220. See also, Claudio Gutiérrez y Flavio Gutiérrez, "Ramón Picarte, la proeza de hacer matemáticas en Chile," *Quipu* (13), N° 3, pp. 307-341.

<sup>128</sup> Lomnitz, *op. cit.*, p. 105. For a general approach to the beginning of statistics in Mexico, Leticia Meyer, *Entre el infierno de una realidad y el cielo de un imaginario. Statistics and scientific community in the first half of the 19th century Mexico* (Mexico D.F.) El Colegio de México, 1999).

<sup>129</sup> Alejandra Araya, "La Matrícula de Alday (1777-1778): imaginarios sociales y políticos en el siglo XVIII americano," in Grupo de Estudios en Historia de las Ciencias (eds.), *Control social y objetivación: escrituras y tránsitos de las ciencias en Chile* (Santiago: Universidad de Chile, 2012), p. 23.

institution that conferred steadiness to this type of work constituted fundamental fronts in the incorporation of statistics into the State machinery.



## Chapter 2

### “A new science among us.”

#### The Chilean Statistics Office in its First Institutional Phase (1840-1858)

After the end of the war against the Peru-Bolivian Confederation (1836-39) an era of financial stability and commercial development began. This enabled the emergence of a series of scientific and educational institutions that inaugurated a permanent State policy of promotion of teaching and research activities<sup>130</sup>. These were also the years in which Chilean authorities sought to strengthen the territorial anchoring of the State through a series of offices and regulations aimed at modernizing the administrative regime and the control over the territory<sup>131</sup>. Likewise, in this period began the process of expansion of the national frontiers to the extreme south, with the claim to sovereignty over the Magellan Strait (1843), the beginning of the European colonization of the Llanquihue area (1852), and the bureaucratic penetration into the Mapuche territory, crowned by the establishment of the Province of Arauco (1852). In parallel to such geographical expansion, the government organized several scientific expeditions aimed at gathering updated information for the administration of the new territories. While the polymath Claudio Gay and the geologist Amado Pissis produced the first maps of the nation, Diego Salamanca and Leoncio Señoret started to explore the coastal areas of the country.

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<sup>130</sup> Among these institutions were the Quinta Normal School of Agriculture (1841), the Normal School of Preceptors (1842), the University of Chile (1843), the School of Arts and Crafts (1849), the Academy of Painting (1849), the School of Architecture (1849) and the National Astronomical Observatory (1852).

<sup>131</sup> For example, the Directory of Roads, Channels, Bridges and Walkways, created in 1843, and the Engineering Corps would be responsible for improving territorial connectivity; the Internal Regime Act of 1844 organized the government of provinces and minor administrative units; the Municipalities Act of 1854 regulated the operation of these corporations; the Ordinance for the Regime and Good Governance of the Maritime Territory, also in 1854, established the coastal governorates; and the Postal General Ordinance of 1858 merged the postal and telegraph services into one institution.

It was in this context where the first institution dedicated to the production of statistical knowledge began to take shape. As discussed in the previous chapter, the proposals for the establishment of such organ, and the efforts to cover its functions, date from the early years of the Republic. There were clear precedents, like the Council of Public Economy (1811) and the Directorate of National Economy (1823), the two institutions of economic promotion and political arithmetic research planned by Juan Egaña. Also of importance were the projects directly supervised by the State, such as the 1813 and 1835 censuses, the failed 1824 counting, and the scandalous research conducted by the Central Board of the Cadaster (1831-32), which proved the risks of entrusting influential citizens the task of collecting information for tax purposes. Relevant as well were the editorial initiatives that assumed the concerns of the statistical agenda, like the works by José Javier de Guzmán and Fernando Urizar, which contributed according to their possibilities to the definition of a scientific field. The importance of these State and civil precedents, to which one may add the experience accumulated by the clergy in the administration of its historic monopoly on vital records, lies in having configured the methodological inheritance from which the national statistical service started.

The following pages explain why the Statistics Office took shape in the 1840s and consolidated in the next decade. Part of that explanation has to do with the economic boom of the period, which financed the expansion of State institutions and the raising of salaries in the public sector. Statistics certainly benefited from that trance. The establishment of a full-time bureaucracy, later supplemented with a nationwide network of agents, placed another pillar for a standardization process that previous governments could not achieve. The refinement of the penetration of the State over the territory was also a crucial factor, particularly thanks to the homogenization of the provincial administration –a basic requirement for gathering statistical information– and the systematic use of science to tame a still unknown geography. The emergence of institutions such as the University of Chile, which incorporated statistics among its academic concerns, and the bureaucratic consolidation of the ministries, which assumed the production of sectorial statistics, contributed in different degrees to the acclimatization of this discipline. Of course, none of these factors ran perfectly nor exempted statistics from facing critiques and setbacks. However, they were fundamental for keeping the project afloat.

The Statistics Office was provisionally established in 1843, and formally founded in 1847. That is why in the literature one finds mentions to both years as the starting date. Saying

that may seem an idle precision, but it is not so if the temporal gap is understood in institutional terms. It is enough to point out that this four-year period was the context of the parliamentary debates that determined the first order of the Chilean statistical system. Albeit part of these discussions had taken place in previous decades a propos of the first proposal for organizing this service, they were updated in this period in the midst of the conflicts on defining the number of employees, the annual budget, and the type of tasks entrusted to it.

After the formal organization of the Office in 1847 different obstacles emerged. The most pressing one was the definition of the linkages between the Statistics Office and an administrative structure that showed several deficiencies in terms of territorial anchoring. The type of social interactions that the production of this of knowledge imposed was another source of setbacks. On the one hand, there was a mixture of indifference and ignorance from the regular administrative cadres eventually involved with statistics, aggravated by the generalized precariousness of the emerging national bureaucracy; on the other hand, there was the people and their distrust with statistics, which in their imaginary were linked to taxation and military conscription. Thus the pressure to produce official statistics ended up exposing the limits of the Chilean State to consolidate its control over the territory and its officials. Even though the two former directors of the Statistics Office –Fernando Urizar (1843-1847) and José Miguel de la Barra (1847-1851)– focused their energies on overcoming such obstacles, they still seemed insurmountable toward the beginning of the 1850s.

This chapter covers the period 1840-1858 studying the parliamentarian debates, the organization, and the first three administrations of the Statistics Office. It is divided into eight sections. The first one focuses on the provisional organization of the institution in 1843 and the role polymath Claudio Gay played on it. The review of his statistical project and the opinions of other political actors of the period offer valuable clues to assess the initial architecture of the Office. Sections two and three analyze the first year of the administration of Fernando Urizar, the man behind the first statistical research plan of national scope and who also was the first in meeting the difficulties this project would face in the medium-term. One of the most complex problems was the weak coordination between the Office and the provincial bureaucrats, who did not show interest in assimilating the information gathering protocols the institution depended on. Among the strategies to overcome these difficulties, the government decided to organize commissions of local citizens that would act as improvised official surveyors, bringing into the

statistical field a formula the State used assiduously in these times to make its presence felt in areas of fuzzy control. Despite these setbacks, the government of Manuel Bulnes decided to expedite the institutionalization of the organ and in 1844 sent to Congress a detailed project of organization. This legislative debate, which extended for over three years, is the focus of the fourth section. Budgetary allocations and the documentary base to be conserved by the National Archive (an institution subordinated to the Statistics Office) were the main contentious points during this process, which also helps to explore the position of the new Office with respect to other State departments.

Sections five and six describe the administration of Eduardo de la Barra, which was a sort of failed transition toward institutionalization. However, that situation was reverted by the autonomous development of sectorial statistics. Commercial, judicial, and medical data started to be compiled and systematized following routines and protocols that contrasted with the initial disorganization of the Statistics Office. Finally, sections seven and eight cover the decisive administration of Manuel Talavera (1851-1858) in which two milestones took place. The first one was the population census of 1854, whose analysis allows understanding the set of strategies defined from Santiago to cover the national territory and how local authorities adopted them to meet the objectives of counting. This experience of State territorial penetration, which gradually restored confidence in the capacity of the institution, was key to the second milestone, the creation of the post of provincial statistics officials in 1855. Thanks to them, the Statistics Office counted for the first time with an extended network of full-time employees that opened up new communication channels between the capital and the administrative peripheries. However, their presence also brought about a new series of tensions that reflected, once again, the secular setbacks of the provincial administration.

Some issues worth mentioning arise from this analysis. One of them is the important role the Customs Office of Valparaíso played as a seedbed of statistical specialization, exporting several officials to other departments of the State, including the Statistics Office. Both Fernando Urizar and Manuel Talavera resided in different periods in the port working at the commercial statistics section, and that experience ended up being key during their administrations. José Antonio Carrasco followed a similar trajectory. A reputed customs official, in 1844 he went on commission to the Ministry of Justice, Worship and Public Instruction to take charge of judicial statistics. Furthermore, the administrations of Urizar, de la Barra and Talavera help illuminating

different ways of understanding statistics toward the the mid-nineteenth century and such differences had a significant impact on the form each one organized the institution's task. Far from exacerbating the discrepancies, noting this demonstrates that their *jefaturas* neither were part of a continuum nor followed a cumulative logic. During the 1820s and 1830s there were two competing bureaucratic designs, one decentralized the other monocentric; from the 1840s on the design was incontestably centralist and these three *jefaturas* incarnated revealing variations within such scheme. While de la Barra proposed a research scheme centered on statistics by branch instead of by provinces, Urizar had thought the opposite some years before. Talavera approached the situation from a different perspective, realizing that the problem was not about choosing between one type of statistics or another, but about reforming how the information was collected in the basic units of administration –hence the establishment of the post of provincial statistics agent. Beyond the fact that Talavera's strategy proved being more pertinent and fruitful in the long term (despite the initial difficulties of the such units to absorb this new bureaucratic pressure represented) it is important not to lose sight of the crucial changes that took place in this brief period, which showed the existence of different diagnoses of what was at stake in this first phase of institutionalization.

This chapter has two linked objectives. The first one is to offer a more complex interpretation of the process of the establishment of the Statistics Office. The national narrative usually analyzes the emergence of this institution, along with the other scientific and educational agencies of the period, as part of an institutional choreography that consolidated the Conservative Republican project in a context of political openness and intellectual development. Therefore, there seems to be no space to recognize that, despite the contemporary consensus on the urgency of founding a statistical system, there also were significant debates that reflected the existence of dissimilar criteria on how to do so and even of voices that opposed to these plans. In that sense, the idea of an unrestricted State support to the assimilation of a knowledge that supposedly refined the capacity of intervention of that very State should be revised by assessing how such support was really expressed in material terms. In other words, this entails to adopt a more agonistic view on the process of creation and expansion of State institutions. The second objective is a byproduct of the previous one and points to identify, through the history of a specific institution, the critical knots that conditioned the process of State formation in Chile in the mid-nineteenth century. Although the Statistics Office was far from incarnating all the

obstacles that accompanied that process, its establishment does shed light on how the administrative constraints of the period determined the routes followed by the State to form a predictable, efficient, and territorially ubiquitous information network that strengthen its capacity of knowledge and control.

## 2.1. Claudio Gay and the Statistics Office

The end of the war against the Peru-Bolivian Confederation (1836-39), which positioned Valparaiso as the main port of the South Pacific, renewed the pressures for the establishment of an institution in charge of producing statistics. As the previous chapter showed, such demand was in the air, but mostly connected to the problems of political representation and the solution of the administrative affairs to which this knowledge was normally linked. But now, under a new and more advantageous geopolitical scenario, this request would be reinforced by the need of having a deeper knowledge of the moral and material resources of the Republic, the exchange of goods in and out of its frontiers, and of the situation of its incipient industries. The definition of a consistent economic policy, a crucial step for squeezing the financial stability and the commercial development that followed the war, intensified the demands for up to date knowledge about the structure and potential of the Chilean economy<sup>132</sup>. Statistics would be the thrust of such anxieties.

Actors involved with the administration of fiscal resources mostly advanced this new argument. For instance, in 1842 the notorious Minister of Finance of the Conservative governments, Manuel Rengifo, linked the lack of accurate data on population and consumption to the widespread institutional delay and the slow establishment of trade agreements. He did not deem it impossible to generate tables or publish figures, but nonetheless insisted on the need to set up an institution that would confer regularity and method to a branch of knowledge that was the foundation and guiding principle for any substantive economic reform<sup>133</sup>. One year earlier, another key figure in the history of State finances, Diego José Benavente, made a similar argument in the first part of his *Opúsculo sobre la hacienda pública de Chile*. “If the outputs of a

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<sup>132</sup> López, *op. cit.*, pp. 139-151.

<sup>133</sup> Manuel Rengifo, “Memoria que el Ministro de Estado en el Departamento de Hacienda presenta al Congreso Nacional, año de 1842,” in *Discursos de apertura en las sesiones del Congreso y Memorias Ministeriales correspondientes al primer quinquenio de la administración Bulnes (1842-1846)* (Santiago: Imprenta del Ferrocarril), p. 56.

country are unknown, the number of people inhabiting it, their occupations, their industry, their consumption,” the text noted, “those who govern it could not know its needs nor the measures that can be set in motion to relieve them.”<sup>134</sup> The editors of the newspaper *El Progreso* of Santiago shared this concern, but they presented it in a more catastrophic tone: “Having no reliable knowledge, taxes cannot be established according to the proportional distribution defined by the principles of justice and convenience; the industry in all its branches can be damaged instead of protected; foreign trade would not be encouraged to develop and grow; while wandering without any reference, results would be the only factor to judge the pertinence of the dispositions adopted.”<sup>135</sup> Even though there were differences on how to organize these works, enlightened circles agreed on recognizing the centrality of statistics for economic planning. That is why they promoted its definitive institutionalization and insisted on the necessity of not postponing the beginning of its researches.

Despite the practical obstacles the attempts of the 1830s faced, authorities had not renounced their demands for up-to-date information and persisted in their efforts to engage the administrative cadres with these goals. The problem was that official surveys were still sporadic and unsystematic, did not follow standardized protocols nor had fixed budgets. Somehow they shared the fate of the numerous requests sent by the central government to the provinces inquiring about the administrative limits of each unit and the state of the economic activities developed in intendancies and municipalities. As such requirements did not appeal to specific institutions nor were differentiated from routine administrative work, it was common that they ended up delayed or got lost in the midst of the bureaucratic ordinariness. Just few official surveys met a different fate. One of those dates from 1832 and came from the Province of Valdivia, whose intendant forwarded “a folio of statistical data” referring “to the limits and extension of the entire province and its *partidos*; its public schools and number of students in each; inputs and investments of its municipalities; mountains, hills and rivers, farms, number of animals of all kinds and other outputs; as well as its sea ports and the dirt roads that lead to the other band of the *cordillera*.” The only item that remained pending was the census of the inhabitants, who could not be calculated for the mistakes departmental governors committed in

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<sup>134</sup>Diego José Benavente, *Opúsculo sobre la hacienda pública de Chile. Primer cuaderno* (Santiago: Cámara Chilena de la Construcción: Pontificia Universidad Católica de Chile: Biblioteca Nacional de Chile, 2010), p. 13. The first edition of this work was published in Santiago in 1841 by the Imprenta de la Opinión; I follow the 2010 re-edition published as part of the *Biblioteca Fundamentos de la Construcción de Chile*.

<sup>135</sup> *El Progreso*, Santiago, December, 1843.

filling out the forms<sup>136</sup>. Another successful research was a questionnaire of 42 questions sent to the provincial intendants in 1841. This was an anomalous survey, as it did not respond exclusively to the needs of the government but also to the interests of the scientific hero of the Conservative period, the polymath Claudio Gay, who at the time was carrying out his expedition. Indeed, Gay drew up the questionnaire [table 2.1] and this explains the hybrid nature of an inquiry where genuine political and administrative concerns mingled with miscellaneous issues that do not necessarily fit into a statistical report.<sup>137</sup> In a symptomatic gesture of the imprecise understanding of what statistics was, the Ministry of Interior did not hesitate to catalog the compilation of answers as “the first collection of statistical data of the entire Republic” that had been possible to gather<sup>138</sup>.

Table 2.1 Questionnaire prepared by Claudio Gay and sent by the Ministry of Interior to intendants and departmental governors in 1841.

1. What are the limits of the department to the East, West, North and South?
2. In which places of the department are, and how many: convents, churches, chapels, oratories, priests, clerics, and religious orders?
3. What are the most common diseases in the department?
4. How many physicians and surgeons are there?
5. If there are mineral waters and where
6. Around how many beggars and hobos would there be?
7. How many black males and females?
8. What number of mines function?
9. How many copper mines and how many have drill bits?
10. How many silver mines and how many have drill bits?
11. How many gold mines and how many have drill bits?
12. How many melting furnaces are there?
13. How many reverberatory furnaces?
14. How many wheel grinders?
15. How many flour-mills?
16. On the common lands, how many bushels yields a crop of wheat?
17. How much pays a bean crop?

<sup>136</sup> Intendancy of Valdivia, May 2, 1832, AN. MINT., Vol. 122, ff. 5-11.

<sup>137</sup> The questionnaire was sent by mid-1841 and the replies arrived before Gay embarked to Europe, in mid-1842, to begin the long writing process of his scientific report.

<sup>138</sup> Joaquín Prieto, “Discurso del Presidente de la República al Congreso Nacional,” in SCL, National Congress, Opening Session, June 1, 1841, vol. XXIX, p. 11 and Ramón Rengifo, “Memoria que el Ministro de Estado en el Departamento de Interior presenta al Congreso Nacional, año de 1842,” in *Discursos primer quinquenio de la Administración Bulnes (1842-1846)*, p. 10.



18. How much one of barley?
19. How much one of corn?
20. How much one of potato?
21. To which port are the products of the department shipped and how much the freight cost?
22. How many leagues are from capital city of the department to the port?
23. For the supply of the population in the area, how many cows are killed every day?
24. How many sheep or rams?
25. What is the regular price of a head of cattle?
26. What of a sheep or ram?
27. What of a hen?
28. What are the three most common trees?
29. How much is a *cuadra* of farmland worth?
30. What are the main estates of the department?
31. If there are some merchants that have gone bankrupt in the previous 10 years, how many are they and what amount did they lose more or less?
32. If there are guards or watchmen in the capital city of the department and how many?
33. With what quantities does the local community contribute to its sustenance?
34. How many prisoners are jailed in a year?
35. How many prisoners are kept in jail every day?
36. How many murders would have taken place from 1830 to 1840?
37. Is there a village in which the indigenous race remains pure and unmixed?
38. If so, what can this be attributed to?
39. Has any ancient indigenous monument been found there, or exists one? What type of monument is and in what place was it discovered? What is known about its origin and use?
40. What is the most common entertainment in the department?
41. Is there inclination in the neighbors toward the vices of drinking and gambling?
42. How many villages exist in the department, their names and number of houses, approximately?

Source: Luis Mizón, *Claudio Gay y la formación de la identidad cultural chilena*, pp. 118-119.

Gay's intervention was far beyond this particular episode. His experience during the data-gathering process for writing his *Historia física y política de Chile* was key to shape the proposal for the organization of a statistics office and the government archive mentioned in the previous chapter. His was an institutional response, essentially centralist, to the obstacles that had delayed and limited his own investigations. For Gay, statistics was a key input for any historical approach and therefore he understood it related to the study of the origin and transformation of

administrative institutions.<sup>139</sup> Thus, in his plan, the statistics office was institutionally merged with the organization of a national archive responsible for preserving official documentation, which hitherto remained dispersed or exposed to destruction and loss due to lack of a central repository. To facilitate the transfer, Gay recommended to establish this institution near the ministries, since this would expedite the concentration of papers housed in different government repartitions.

The Statistics Office, with a director and one or two assistants, would be the administrator of the repository and at the same time its main user; it would also concentrate the reports that priests, hospitals, municipalities, and other government institutions should send monthly or quarterly. That material would be the input for the drafting of periodic reports on the progress and delays of the republic. The Statistics Office, so Gay thought, could also be charged with attending to another urgent shortage: topography. Given the lack of resources and waiting for the completion of his own cartographic work, he proposed that Office could request and preserve all the maps of the *haciendas*, thus setting up a collection that could gradually help to administer the *cadastro* [agricultural tax], whose calculation was suspended after the failed survey of the 1830s. Finally, Gay offered himself as intellectual “godfather” of the new division, committed to sending from France –where he had moved to write his *Historia*– works that could serve as model and comparison for local statistical endeavors.<sup>140</sup>

Gay seemed strongly committed to this institutional project. Indeed, in a later letter sent from Europe to the minister of Justice, Worship and Public Instruction, Manuel Montt, he lamented not being in Chile to take part in the organization of the office. He admitted that if he had counted during his expedition on the informational resources the new institution was going to provide, his investigation should not have cost “so much work” and had been more complete<sup>141</sup>. Despite the anxiety about being unable to digitize on the ground the emergence of a service he deemed relevant, Gay managed to influence effectively on its staffing, which was

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<sup>139</sup> In fact, two of the thirty volumes of his *Historia física y política de Chile* (1844-1871) reproduced “documents about history, statistics and geography.” Albeit this thematic triad did not represent the actual content of the compilation (mainly focused on government documents), it did summarize how Gay understood his research work. See Claudio Gay, *Historia física y política de Chile*, Documentos I y II (Santiago: Cámara Chilena de la Construcción, Pontificia Universidad Católica de Chile, Biblioteca Nacional de Chile, 2009), prologues.

<sup>140</sup> Letter by Gay to Montt, Valparaíso, June 23, 1842. *Correspondencia...*, pp. 39-41. It should be recalled that the plan for the organization of the Office and the archive was introduced in one of the last letters Gay sent to the Minister of Justice, Worship and Public Instruction, Manuel Montt, before departing to Europe.

<sup>141</sup> Letter by Gay to Montt, Paris, September 12, 1843, *op. cit.*, p. 60

provisionally organized by decree on March 27, 1843. Its functioning was entrusted to two functionaries from other State departments appointed as commissioners to avoid imposing an extraordinary expense on the national budget. Fernando Urizar Garfias, then Secretary of the Customs House of Valparaíso and author of the *Repertorio chileno*, was appointed as chief. It was Gay who recommended him, praising his industriousness, talent and “truly privileged fitness for this genre of work.”<sup>142</sup> As assistant was appointed Francisco Solano Pérez, first official of secretary of the Intendancy of Santiago, who had gained some experience on the matter by ordering numbers and preparing graphs related to the population of the capital.<sup>143</sup>

Directly dependent on the Ministry of Interior, the chief of the Statistics Office had the power to request the assistance of any official authority in the search for useful news; also, he was obliged to submit semi-annual reports to the ministry, detailing the works executed during the period as well as potential solutions to the obstacles detected in the midst of his inquiries. Likewise, he was responsible for editing an annual report, which should contain all the information worthy of consideration.<sup>144</sup> The only item that Gay’s plan did not consider in this provisional organization was the installation of the archive, probably because this was a more complex and onerous task and involved discussions that could not be skipped by means of decrees.

In the midst of this process, Minister of Interior, Ramon Luis Irarrázaval, explained the decision that the Office had initially a provisional status and that its officials were appointed as “commissioners” and not as regular functionaries. Although there was a relative consensus on the importance of the Office for the right functioning of the Republic, the costs of establishing it and the details of its operation could arouse apprehensions that it was worth anticipating. By that token, the government considered relevant to gather some background information before presenting a definitive project. Thus, without putting pressure on the budget and avoiding a debate that could unnecessarily delay the start of the investigations, the authority envisioned a

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<sup>142</sup> Letter by Gay to Montt, Valparaíso, June 23, 1842, *op. cit.*, p. 40. Indeed, the recommendation alluded to the *Repertorio* of 1835 as a good record; interestingly, in the letter the book was named as the “*Guía de forasteros*” (outsiders’ guide) of 1834, thus confirming the mixed nature of that work.

<sup>143</sup> See, for example, his charts on Santiago’s educational institutions in *El Araucano*, Santiago, January 15, 1831. Besides his duties in the Intendancy of Santiago, Francisco Solano Pérez was director of the Sunday Schools and had previously served as a stenographer in the National Congress (and published a treatise on the subject). He also served as Secretary of the Intendancy of Valdivia, deputy for that constituency, and principal officer in the Ministry of Finance. He would later become Tax Office Inspector and Provisional Director of the Quinta Normal School of Agriculture. He died in 1840.

<sup>144</sup> *El Araucano*, Santiago, March 31, 1843.

scheme that would allow to advance work, evaluate procedures, calibrate the scope and foresee the objections a formal organization project could face<sup>145</sup>. It was under this frame, with heavy demands on productivity, but with an informal institutional status, that the first statistical institution of the country started to operate.

## 2.2. A national research program

After the promulgation of the decree, Urizar concentrated on the drafting of a general research plan that, aside from operating as tentative index of the annual report, could serve as base for the elaboration of the questionnaires the government should send to the provinces. The result was astonishing and perturbing. Its thoroughness revealed a deep understanding both of the country and of what statistics was useful for. But its scope seemed disproportionate to the bureaucratic capacity of an institution in the making. It is important to note the affinity between the text Urizar published in 1835 and the details of the plan he ended up drafting. The chief of the Statistics Office must have seen in his appointment the possibility to resume and expand the research program outlined in that publication and which had been impossible to replicate in the years immediately following. On another scale, there were also links to the work and proposals of Juan Egaña during the Independence period –which in turn refer to the thematic structure of the questionnaires sent by the Spanish Crown for the preparation of topographic descriptions. Although the political context was different and the information to be collected was understood as an input for a purely national project (not for an imperial one), these research programs were somehow equivalents and were ascribed to the same scientific horizon, that of a statistics with a qualitative inclination.

Reviewing the general plan of 1843, copied below, is illuminating for two reasons: on the one hand, it allows dimensioning the expectations of the authorities reached and the confidence in the clarifying power of statistic; on the other, it allows visualizing the material and conceptual challenges this research program would pose both to the newly created Statistics Office and the bureaucratic apparatus at large:

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<sup>145</sup> “Memoria que el Ministro en el Departamento de Interior presenta al Congreso Nacional en 1843,” SCL, Chamber of Deputies, Session 50<sup>a</sup>, October 18, 1843, vol. XXXII, pp. 512-513.

CHAPTER 1  
TERRITORY

Article 1 *Chile in general*: The various demarcations its territory has had from the time of Conquest and which it has at present.- Geographical situation and extension of its surface.- Land and sea borders and their length.

2nd. *Physical aspect of the country*: Mountains.- Forests.- Rivers.- Lakes.- Aqueducts.- Islands.- Ports and coves.- Volcanoes.- Plains and valleys.- Soil quality.- Fertility.- Climate.- Environmental health.- Temperature.- Air pressure.- Rain.- Winds.- Tremors.

3rd. *Divisions and subdivisions*: Administrative.- Judicial.- Ecclesiastical.- Military.- Location of towns and distances between them.

CHAPTER 2  
INHABITANTS

4th. *Population in general*: Races.- Languages.- Religion.- Laws.- Uses.- Customs.- National character.

5th. *Population compared*: Between the departments and the provinces.- Between the villages and the countryside.- Between owners and proletarians.- Between those who know to and those who cannot read and write.- Between those that are vaccinated or not.- With regard to age, sex and civil status.- Of the diverse professions, occupations and careers.- Of foreigners, Indians and blacks.- Of deaf, mute, blind, paralyzed, paralytic and insane persons.

6th. *Population movement*: Born.- Died.- Weddings.- Divorces.- Number of people who enter and leave the Republic.

CHAPTER 3  
NATURAL PRODUCTS

7th. *Animal kingdom*: Animals, wild and domestic.- Specification of some and others and number of each class of domestics.- Quality and uses they are intended for.- Fishing and circumstances that favor it.

8th. *Plant Kingdom*: Agriculture in general.- Class and amount of grain produced.- Hemp and flax.- Vineyards.- Tobacco.- Oil plants.- Medicinal plants.- Wood construction.- Horticulture.- Natural and artificial grass.- Forest.- Uncultivated land.- Wastelands.- Division of properties.- Territorial rents.- Territorial contributions.- Agriculture Society.

9th. *Mineral kingdom*: Mineral wealth.- Species and number of mines.- Points at which they are located.- Calculations about what they have produced after being discovered.- Current products.- Number of workers.- Mining institutions.

CHAPTER 4  
INDUSTRY, TRADE AND NAVIGATION

10th. *Factories*: Their diverse species.- Number of each species.- Products.- Number of people employed.- Industrial establishments.- Workshops and number of people working in them.

11th. *Trade*: Imports.- Exports.- Deposits and consumption of foreign goods.- Trade balance of Chile with each foreign nation.- Domestic, maritime, and land trade.- Maritime movement.- National Merchant Navy.- Mercantile establishments.- Commercial institutions.

12th. *Coins, weights and national measures*: Coins of gold, silver and copper.- Their value, weight, law, type and denomination.- Coinage.- System of weights and measures.- Weights and medicinal measures.

13th *Communications routes*: Enumeration of public roads.- State they are in.- Traffic on them.

## CHAPTER 5

### INTELLECTUAL CULTURE, JUSTICE, AND PUBLIC CHARITIES

14th. *Sciences and arts*: Intellectual activity.- Printing press.- National authors.- Scientific societies.- Libraries.- Museum.- Chemical laboratories.- Observatory.

15th. *Public instruction*: University.- National Institute.- Professional institutes.- Seminars.- Military academy.- Private schools.- Law academy.- Teachers college.- Sunday schools.- Primary schools.- Special schools.

16th. *Justice*: Prisons.- Criminals.- Crimes.- Penalties.- Civil judgments.

17th. *Worship*: Diocese.- Parishes.- Secular clergy.- Regular clergy.- Churches, chapels and oratories.- Monasteries and houses of pious women.- Missions of infidels.- Brotherhood and guilds.

18th. *Public charity*: Charity.- Hospitals.- Hospices.- House of foundlings.- Pantheons.- Pious works.- Saving banks.

## CHAPTER 6

### PUBLIC ADMINISTRATION

19th. *Political organization*: Constitution.- Ministries.- Coat of arms.- National pavilion.

20th. *Political and economic government*: Internal regimen.- Post and mail.- Public buildings.- National holidays.- Public works.- Public amusement.- Treaties with foreign powers.- Diplomatic agents and consular foreigners living in Chile.- *Ídem* Chilean residents in foreign countries.- Patronage.

21st. *Judicial organization*: Supreme Court.- Courts of Appeal.- Judges of letters.- Mayors.- Sub-delegates and inspectors.- Special courts.- Lawyers.- Notaries.- Receptors.- Attorneys.

22nd. *Finance*: National income.- State expenditures.- Public debt.- National property.- Treasury offices.

23rd. *Army, Navy, and civic guard*: General inspection.- General Command.- Military Staff.- Army corps.- Navy.- Civic guards.- Ordinances of the Army and Navy.- Commanders and officers added.- Artillery works.- Disabled corps.- Health service.- Army and Navy plan of salaries.

## CHAPTER 7

### HISTORICAL RESEARCH

24th. *Historical news on the towns*: Notes on its foundation.- Particularities they have.- On their current situation.

25th. *Antiquities and natural curiosities*.

26th. *Notable events in Chile from 1810 onwards*.<sup>146</sup>

With this ambitious plan in view, from mid-1843 the authorities were summoned to adjust the bureaucratic means for the success of the inquiries. Likewise, they had to take part in the preparation of a new population census to be applied in October of that same year<sup>147</sup>. The first step was to send to intendants, governors, sub-delegates, inspectors, parish priests, heads and functionaries of the different divisions of the State the forms and their corresponding

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<sup>146</sup> *El Progreso*, Santiago, December, 1843. In later editions –between December 1843 and January 1844– this newspaper published a series of articles that explained each chapter in order to persuade readers of the utility of the inquiry.

<sup>147</sup> Ministry of Interior, Decree of June 23, 1843, *Boletín de las leyes y de las órdenes y decretos del gobierno*. Third Volume, Books VIII, IX, X y XI (Valparaíso: Imprenta del Mercurio, 1846), Book XI, no. 6, pp. 535-537.

instructions. In June, for example, the Ministry of Interior referred to the president of the Tribunal of *Protomedicato* a set of seven questions that sought to identify the prevailing diseases in each administrative unit. The objective was that this tribunal should establish contact with physicians in each province (or for that matter with residents who could provide relevant information) to answer the queries of the questionnaire.<sup>148</sup> That same month it was approved a form in which customs officers had to register the exact number of individuals that entered and left the country monthly; similar guidelines were sent to military and charity hospitals to register those who entered and left –alive or dead– these establishments.<sup>149</sup> Toward the end of July the intendants received questionnaires related to Chapter 3 of the statistical plan, focused on the animal, vegetable and mineral kingdoms and the fertility of the soil of each department. Days later they would receive the forms that had been drew up for registering trade and industrial activities<sup>150</sup>. Similar proceedings were put in motion to start the population counts: while parish priests were taught on how to complete the monthly forms of population movement they would have to send to the Statistics Office, intendants and governors were ordered to recruit “suitable persons,” public employees or not, to organize the commissions that would carry out the population census.<sup>151</sup> So, in a couple of months a large machinery of information gathering dedicated to cover the research plan of the Statistics Office was launched.

However, these measures soon exposed serious mismatches within the administrative apparatus, mostly derived from the narrowness and lack of organization of the State bureaucracy. In the short term, the plan could not be developed without the introduction of reforms that, along with strengthening the administrative discipline and territorial penetration of government agents, reinforced the civil loyalty of the inhabitants recruited for these works. One of the first resolutions adopted was the organization of “statistics commissions” in the main villages of each department. They were made up of the respective departmental governor, a local judge, the parish priest, a mayor chosen by the municipality, and two neighbors appointed directly by the

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<sup>148</sup> Ministry of Interior, communication of June 23, 1843, *El Araucano*, Santiago, June 23, 1843.

<sup>149</sup> On the forms for customs officers, *El Araucano*, Santiago, June 23, 1843; for instructions to military and charity hospitals, Ministry of Interior, Decree of July 15, 1843, *Boletín de las leyes y de las órdenes*, Third Volume, Book XI, no. 5, p. 547.

<sup>150</sup> Ministry of Interior, circular letter of July 22 and August, 1843, *Boletín de las leyes y de las órdenes*, Third Volume, Book XI, no. 7, pp. 548-549 and no. 8, pp. 557-558, respectively.

<sup>151</sup> On the monthly reports on population, Ministry of Interior, Decree of June 23, 1843, *Boletín de las leyes y de las órdenes*, Third Volume, Book XI, no. 6, pp. 533-534; on the preparation of the census among basic administrative units, circular letter of June 23, 1843, Book XI, no. 6, pp. 535-537.

central government. Each one had to “acquire, rectify, order and clarify the data relating to the statistics of the department,” and might also organize minor commissions with the more prepared and “patriotic” citizens to support the inquiries. Both the minor and the central commissions had to operate in coordination with the intendant and the head of the Statistics Office, who would coordinate the entire operation from Santiago<sup>152</sup>.

As the government did not planned to remunerate these works, the effectiveness of the informational network depended exclusively on the “patriotism” and “zeal” of the citizens. Here it emerged another set of problems. One of the conditions under which neighbors were recruited was to not entrust them another equivalent task or service. However, the scope of the State research program forced to “reinterpret” that criterion. It should be mentioned that the discussions relating to the organization of a national statistical system took place in parallel to the debate of laws and the establishment of key institutions for strengthening the territorial presence of the State, such as the roads network and the postal system. In this context, for instance, it was organized the Directorate of Roads, Canals, Bridges and Roads, dependent on provincial commissions integrated by civil authorities, a local surveyor and officers of the Civil Engineering Corps. During 1843, this Directorate was asked to coordinate a series of inquiries regarding territorial delimitation, agricultural division, hydrography and orography, matters considered in Chapters 1 and 3 of the research plan of the Statistics office. But shortage of engineers and bureaucratic indolence paralyzed these inquiries for months. As a way of resuming them and overcoming the shortage of professionals, the Ministry of Interior decided that the newly organized departmental statistics commissions undertook the questionnaires of the Directorate of Roads<sup>153</sup>. Ultimately, their research goals were similar. It is interesting what this measure suggests with respect to the periodic use of citizen commissions as a supplemental bureaucratic resource for covering administrative needs.<sup>154</sup> This was a chronic problem during the process of organization of the State, which would have a detrimental impact on the regular production of statistics at least until the 1860s.

It is also revealing that at the very moment when the provincial authorities began to receive the forms for fulfilling their statistical duties, a new scale of salaries was approved. This

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<sup>152</sup> Ministry of Interior, Decree of July 28, 1843, *Boletín de las leyes y de las órdenes*, Third Volume, Book XI, no. 7, pp. 549-550 and communication of August 1, 1843, Book XI, no. 8, pp. 555-557.

<sup>153</sup> Ministry of Interior, circular letter of August 22, 1843, *Boletín de las leyes y de las órdenes*, Third Volume, Book XI, no. 8, p. 572

<sup>154</sup> On citizen commissions and State intervention, Bourdieu, *op. cit.* pp. 47-51.



seemed to be a timely compensation for the increasing administrative demands from the central power. The diagnoses that were circulating about this point were worrying. The lack of a substantial budget had made almost impossible to fill positions within the upper echelons of the State bureaucracy, which resulted in prolonged vacancies and continuous rotations that delayed the setting of administrative routines. The situation was particularly complex in the case of governorates. In the absence of civilians committed to public service, these positions ended up under the control of military authorities designated by the central government. For many contemporaries this implied a step backward, since it meant opening a room for turning “the political administration of the Republic into a military regime.”<sup>155</sup> Worse still was the status of the governorate secretariats, usually running without clerks nor fixed income for office expenses. There were cases in which municipalities had to supplement or assume such disbursements, which also was anomalous, since they usually functioned with tight budgets. These corporations usually provided the office supplies needed to perform the tasks ordered by the central government, as it happened to several local statistical commissions, whose expenses on “paper, ink and pen” were paid by the nearest municipalities –not to mention that also had to put their own scribes at disposal of such commissions.<sup>156</sup>

Interestingly, all these setbacks pointed to the same problem, the lack of coordination within the administrative units. Albeit the government had submitted a project in 1836 aimed at organizing the provincial government in its minor units, its approval remained pending. The initiative sought to impose order and regularity where improvisation and broad discretion had predominated, projecting the centralist turn decreed by the Constitution of 1833 onto the provinces. This diagnosis, which for Conservative minds described the informality they sought to evict, was reinforced after these first attempts at producing statistics, an activity that required “uniformity and simultaneity in operations and procedures by those in charge of executing them”<sup>157</sup>. Indeed, it was common to find opinions that addressed the situation as a genetic problem: without administrative order, there would be no statistics. Therefore, the success of the statistical project seemed also to depend on the approval of this law.<sup>158</sup>

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<sup>155</sup> *El Araucano*, Santiago, August 25, 1843.

<sup>156</sup> Ministry of Interior, Decree of September 16, 1843, *Boletín de las leyes y de las órdenes*, Third Volumen, Book XI, no. 9, p. 578.

<sup>157</sup> Ramón Rengifo, “Memoria que el Ministro de Estado...,” p. 10.

<sup>158</sup> The Interior Regime Act, as the norm came to be known, came into force at the beginning of 1844 and although it did not include a specific section concerning the local development of statistical inquiries, it entrusted intendants and

The need to strengthen these tasks, promoting and supervising on-site the first collection efforts, led even to the planning of a presidential tour throughout the country. This practice, relatively common among colonial governors, had fallen into disuse among the first Republican authorities, hence the importance of the announcement. The first stage of this “general visit” of the President Manuel Bulnes would start in Spring 1843, comprising some departments close to Santiago and the Provinces of Colchagua, Talca, Maule, Concepción, Valdivia and Chiloé; the north of the country would be visited the following year. “Thousand circumstances that are not easy to determine cause that the government receive in a very imperfect way the news that summarize the national demands,” indicated the text announcing the tour, “and in many cases [the government] see itself in the lamentable condition of not being able to satisfy the provincial requests.” Due to the consequences this had for a good administration, it was necessary that the authority attends to the provinces to get a clear idea “of what happens in each of them, and to take exact information of their needs, resources and even what can be expected from their inhabitants.” Judging by the tenor of the announcement, it was believed that solely the news of the trip and the possibility of having the president verifying a “supreme inspection” would suffice to engage local authorities and enlightened residents with the goals of the recently inaugurated institution.<sup>159</sup>

Although such trip did not materialize, the place of statistics in the institutional program of the period was reaffirmed weeks later at the launching of the University of Chile. In the opening ceremony, Andrés Bello –its first president and intellectual godfather of the Conservative Republican project– would explicitly recognize the commitment of the new national university with the production of statistical knowledge.<sup>160</sup> In concrete terms, the act of

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departmental governors with their advancement. Ministry of Interior, Interior Regime Act of the Provinces, Departments, Sub-delegations, and Districts, January 10, 1844, Arts. 80 ° and 135 °, *Boletín de las leyes y de las órdenes y decretos del gobierno*. Vol. IV, Books XII, XIII and XIV (Valparaíso: Imprenta del Mercurio, 1848), Book XII, no. 1, pp. 22 and 36.

<sup>159</sup> *El Araucano*, Santiago, August 25, 1843. For an analysis of this travel plan as a “republican precedent” of the presidential tours of the second half of the nineteenth century, and in particular during the presidency of José Manuel Balmaceda (1886-1891), see Rafael Sagredo, *Vapor al norte, tren al sur. El viaje presidencial como práctica política en Chile. Siglo XIX* (Santiago: DIBAM, Centro de Investigaciones Diego Barros Arana, México D.F.: El Colegio de México, 2001) pp. 171-174.

<sup>160</sup> “The University,” Bello said on such occasion, “will examine the results of Chilean statistics, will contribute to form it, and will read in its figures the expression of our material interests. In this, as in other subjects, the University project is entirely Chilean: if it borrows from Europe the rudiments of the science, it is to apply them to Chile. All the principles followed to direct the investigations of its faculty members and the training of its students converge at one center: the fatherland.” “Discurso pronunciado por el Sr. Rector de la Universidad, D. Andrés Bello, en la instalación de este cuerpo el día 17 de septiembre de 1843,” in *Anales de la Universidad de Chile*

the creation of the university stipulated that among the tasks of the Faculty of Philosophy and Humanities would be the promotion and cultivation of various disciplines, language, literature, history and statistics among them. Furthermore, in a more specific field, the Faculty of Medicine was commissioned to propose a strategy for producing of “accurate tables of mortality and health statistics”<sup>161</sup>. As expression of the descriptive leaning to which statistics was associated to, nothing was said regarding possible links with the Faculty of Physical and Mathematical Sciences, not even a propos of the changes that were taking place regarding numerical knowledge. Indeed, in March of the same year, six months before the opening of the University, the Ministry of Justice, Worship and Public Instruction had approved a reform of mathematics teaching in order to improve the training of surveyors and the curriculum of applied mathematics<sup>162</sup>.

With remarkable diligence and despite the scarcity of resources, within months the Ministry of Interior tried to create the conditions for covering each of the chapters and sections Urizar had integrated into his master plan on statistics. This took place in the context of the discussion of key State reforms, such as the Internal Regime Act, the national road connectivity, and the launching of the University of Chile. On such measures, which should establish the pillars of a network of collection and systematization of information, depended the success of the Statistics Office.

### 2.3. Practical frontiers at the provisional stage

“I do not doubt that the first months would be tiring and yield little result.” With those words polymath Claudio Gay warned Minister Manuel Montt about the obstacles the Statistics Office could initially face<sup>163</sup>. The prognosis was accurate, but time refined it: the first results were going

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*correspondientes al año de 1843 y al de 1844* (Santiago: Imprenta del Siglo, 1846) p. 147. Along with Juan Egaña and Claudio Gay, Andrés Bello is another actor that very early promoted the incorporation of statistical knowledge into the sciences the government should pay attention to. Part of his campaign can be traced by following the series of translations and articles he published in several of the editorial projects he took part, as *El Repertorio Americano* in London, and *El Araucano* in Santiago. See, for example, “Cuadro estadístico del comercio de la Francia en 1824,” *El Repertorio Americano I*, London, October 1826, pp. 212-230 and “Estadística de Tulancingo, 1825” (excerpt), *El Repertorio Americano III*, April 1827, pp. 229-230 and articles published in *El Araucano* in the 1830s (see Chapter I, note 85), some of which have been attributed to Bello as author or translator.

<sup>161</sup> Ministry of Justice, Worship and Public Instruction, November 19, 1843, Arts. 8° y 10°, *Boletín de las leyes y de las órdenes*, Vol. III, Book X, no. 11, pp. 461-462.

<sup>162</sup> Ministry of Justice, Worship and Public Instruction, March 13, 1843, *Boletín de las leyes y de las órdenes*, vol. III, Book XI, no. 2, pp. 520-521.

<sup>163</sup> Letter by Gay to Montt, Valparaiso, June 23, 1842. *Correspondencia...*, p. 40.

to be seen not after months but years. Indeed, the obstacles Fernando Urizar faced as head of Statistics Office were numerous and difficult to trace. He had already met some during the drafting of his *Repertorio chileno* and now re-emerged in connection with the preparation of the “General Statistics of the Republic,” the main task entrusted to the new division. How to write a report on each of the provinces if there was no certainty about their borders and characteristics? How to generate a portrait of scientific pretensions about a territory still not well integrated? How to materialize a project of this nature with a disjointed and narrow administrative apparatus, composed by officials deficiently trained? On what basis without updated maps? These and other questions resonated in the early semi-annual reports sent by Urizar to the Ministry of Interior. They even can be read as summaries of the obstacles the service would meet during most of the nineteenth century: ignorance, particularly among government officials, regarding the political usefulness of this discipline; noticeable disparities in terms of accuracy and responsiveness from provinces; almost no cooperation from the people, who looked askance at these inquiries, linking them with military recruitment and the assignation of new taxes; numerous setbacks arising from bureaucratic narrowness and inefficiency and, as a consequence of all the above, the limitations of the conclusions that could be drawn from the investigations carried out.

By July 1844, a year after the beginning of the survey, only the Province of Maule and the Departments of Putaendo (Aconcagua Province), Vallenar (Atacama Province) and La Laja (Concepción Province) had filled out promptly and neatly the questionnaires sent from Santiago.<sup>164</sup> Translated into numbers, the situation was alarming: only one of the eleven existing provinces and three of the more than forty departments into which the territory was divided had responded. Not even the news on the advancement of the census were encouraging. In one of his reports to the Ministry of Interior, Urizar warned that the collected information was inaccurate because, on the one hand, it had not complied with the requirement of simultaneity or the maximum period of one month defined for the enumeration and, secondly, due to the poor performance of the local commissioners, who had proven ill-prepared, sloppy, erratic, even hateful, stoking thus the rejection and avoidances “of the common people”<sup>165</sup>. The news about these setbacks had begun to circulate early and led to harsh reprimands and mutual accusations

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<sup>164</sup> The Provinces of Valdivia and Concepción sent reports in the following months of 1844, in August and November, respectively. The Department of Talca Department sent some answers in December 1846. AN. MINT., Vol. 122, ff. 12-113v.

<sup>165</sup> *El Araucano*, Santiago, August 16, 1844.

between those involved, just as it had happened in the censuses of 1813 and 1835. Perhaps the most shocking case was that of Province of Santiago, which nearly four months from the date scheduled for the remittance of results still showed no signs of progress. Admonished by the Ministry of Interior, the Intendant José Miguel de la Barra was forced to explain the reasons for the delay: “This province, that apparently has more resources than any other in the Republic to carry out this kind of work, is nonetheless the poorest. To facilitate the operation of the census, I appointed as many commissioners as the blocks this capital has; in rural sub-delegations, I commissioned as many people as the number of existing farms; and yet there have been those who refuse to form the census of the blocks in which they have always lived, and there have been landowners that refused to take the census of their own estates. Do not believe, Minister, that I have renounced to ignite the public spirit of each commissioners, and to stimulate their patriotism: I have done so by word and writing, but anyway I have obtained the results you already know.”<sup>166</sup>

The editors of *El Progreso* –restless censors of the national statistical system– interpreted the delay of the census not as a failure of the authorities but as an expression of a worrying citizen indifference toward public affairs. At the time it was well known that the government was organizing citizen commissions entrusting them with tasks of public utility to expand the scope of the State action without compromising its scarce resources. However, the lack of commitment with which the commissioners responded to these designations not only paralyzed governmental activities, but also offered strong arguments to marginalize society and solve administrative tasks uniquely through the expansion of the Executive power, expressed in (and reinforced by) the creation of public posts. “All free people aspire to subdivide and take over the administration in order to weaken the influence of the power; we, on the contrary, to remain inactive, want to amplify ever more the sphere of action of the Executive.” Advancing a Liberal argument, *El Progreso* defended a model of information gathering that seemed not to fit with the local reality, one which demanded the active participation of the citizenry and that aimed at averting the dangers and costs of a limitless bureaucratic expansion<sup>167</sup>.

But that was not the only view on the problem. Due to its relevance and political implications, others thought that statistics neither was an activity that could be subsidized by the

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<sup>166</sup> José Miguel de la Barra to R.L. Irarrázaval, Minister of Interior, March 22, 1844, *El Progreso*, Santiago, April 6, 1844.

<sup>167</sup> *El Progreso*, Santiago, April 6, 1844.

action of private citizens, be entrusted to unprepared citizens nor developed trying to save on expenses. For them, the crucial step was to integrate it into the basic obligations of the State bureaucracy. That was the opinion of Diego José Benavente, who in his abovementioned *Opúsculo* of 1841 had outlined a plan for these tasks. “Private and free commissions cannot fulfill the goal,” he said, “nor could capable persons be found; quite rich and patriotic people willing to sacrifice their time, comfort and pleasures to undertake an ungrateful and concrete occupation, without any honor for forging a scientific reputation.” So he had proposed an annual budget of \$10,000 to fund an office in Santiago. In his view, these tasks should be entrusted to the secretaries of intendancies, municipalities, parish priests and those who keep income records. As this supposed an administrative overload, part of the budget should be reserved to provide a “short remuneration.”<sup>168</sup> This was in general terms the second position regarding statistics, one that distrusted citizens and that through pecuniary compensation sought to anticipate eventual claims and even the indifference of State officials.

Neither patriotic proclamations nor the decrees that organized the investigations of the Office seemed effective in overcoming the operational barriers faced by the State bureaucracy. Because that was the main problem. The inability to complete the first “General Statistics of the Republic” did nothing else than exposing the fragility of the political loyalties on which this division depended. However, in July 1844 the government decided to persevere in its plan and relativize the effect of the obstacles, which were extensively aired in the press, sending to Congress a project for the formal organization of the Statistics Office. One of the main innovations of the initiative was the rescue of a forgotten aspect of the original plan: the establishment of a National Archive attached to the Statistics Office. An important number of the articles of the new project were focused on this institution, clarifying the types of documents it would preserve; deadlines and mechanisms for the transference of documents from existing archives and State departments; procedures for consultation and issuance of copies requested by citizens, among other things. Taking into account the challenges involved in simultaneously running and archive and centralizing the production of statistics, an official staff roster with eight

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<sup>168</sup> Benavente, *op. cit.*, pp. 14-15. Benavente’s program covered only four topics: population, property, domestic consumption and foreign trade. It was a proposal based on economic concerns and useful for tax purposes, very far from the encyclopedic tone, of colonial inspiration, detected in Urizar’s research plan. Andrés Bello published a laudatory review on the *Opúsculo* reinforcing the views of Benavente on the need to establish a regular statistical system. See “*Opúsculo sobre la hacienda pública*, by Diego José Benavente,” *El Araucano*, Santiago, January 7, 1842.

posts was established: a director, a first officer, three secondary officers, two archivists and a doorman. In the same vein, information processing was reorganized according to four areas, which coincided with the lines of documentary production of the four existing ministries: a) Interior and Exterior; b) Justice, Worship and Public Instruction; c) Finance; d) War and Navy<sup>169</sup>.

Although the formal establishment of the Statistics Office and the organization of a National Archive were measures on which there was a relative consensus, the parliamentary debate would show that such support was far from being absolute.<sup>170</sup> The dissenting voices stated that the project was impracticable, particularly the establishment of the archive, and also that its cost endangered the rule of fiscal austerity by then predominant in the administration of the State. Both positions defined the limits of a debate that lasted more than three years from the presentation of the project on July 1844 to the enactment of the law on September 1847.

#### 2.4. The road to institutionalization

One of the first and most serious objections to the government's initiative emerged from the establishment of the "National Archive," outlined as an institution of colossal proportions. The complexity of assembly it –prepare a space, purchase materials, issue a regulation– was one of the reasons given by the Executive to press the Senate for expeditious processing of the law. In the plan of the authorities the archive should be operational by mid-1845 and considering that its organization would involve coordinating the transference of documents from State offices and the provinces, a rapid congressional approval was essential<sup>171</sup>. The Senate, however, not only rejected the urgency request, but took also its time to discuss and approve a number of indications that would change the profile of the institution as proposed.

Originally, the National Archive should hold copies of all documents generated by the three branches of the State; administrative records of the religious orders and the Council of the University of Chile; duplicates of municipal sessions as well as testaments, contracts and other public instruments drawn up in the notaries of the Republic. The list of documents, ordered in thirteen subsections, seemed not to have filter: the archive must contain almost everything. The most active opposition to this ambitious formula was led by Mariano Egaña, Senator for Linares,

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<sup>169</sup> Department of Interior, July 9, 1844, *El Araucano*, Santiago, July 19, 1844.

<sup>170</sup> To assess the scope of this consensus see, for example, *El Progreso*, Santiago, July 23, 1844.

<sup>171</sup> SCL, Senate, session 16, July 24, 1844, vol. XXXV, pp. 140 and 146-147.

key actor for the Conservative forces (had been of the drafters of the Constitution of 1833) and son of Juan Egaña, one of the early local promoters of statistics. Egaña's objections followed two thick arguments. The first one pointed to the impossibility of establishing an archive applying the extensive criterion of the Executive. To assemble copies of the documentation of each collection and institution not only imposed the need for a large venue, but also to double the number of scribes and personnel of the offices involved, or to increase the wages of the existing staff. There was no other way, in his view, to address the workload that came with mounting the documentary reproduction machinery that would nourish the archive. Therefore, he suggested the application of criteria of significance to distinguish important documents from superfluous ones, relieving thus the backup tasks and neutralizing potential space problems. The second argument, which was echoed by several colleagues (like Senator for Valparaíso and once federalist Diego José Benavente), criticized the idea of the existence of a single archive located in Santiago. The costs associated with transporting files and the informational disadvantage this situation would impose on citizens of other provinces, especially remote ones, were the reasons behind this position<sup>172</sup>.

Egaña's critiques resulted in the complete reformulation of the article on documentation. Among its main amendments were the discarding of the minutes of municipal meetings, acknowledging that these institutions neither were nor would be able to order and send periodically their records to the capital. As many of them lacked administrative routines, the obligation to submit such documents would remain dead letter. "If none other reason moves or stimulates them, this one would never do it," he said in response to one of his critics. He also proposed discarding the notarial acts, probably the most socially relevant documents (the trace of daily transactions among citizens) and the most unattended as well. According to Egaña, the contracting parties had to decide whether the contract or the instrument would pass to the archive or not. Another important amendment was his idea of giving the Executive the power to create "provincial archives," which could neutralized the problem of finding a large venue and prevented the country's inhabitants to remain subordinate to an absolute dependence on Santiago.<sup>173</sup> This indication was approved unanimously.

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<sup>172</sup> SCL, Senate, session 29, September 9, 1844, vol. XXXV, pp. 338-340.

<sup>173</sup> SCL, Senate, session 34, October 2, 1844, vol. XXXV, pp. 402-404.



A relatively different fate met another three indications, also sponsored by Egaña, which altered the physiognomy of the Office in three respects: administrative autonomy, staff and salaries. Regarding the first, Egaña sought that the institution was created as a section of the Ministry of Interior, and not as an independent department linked to that secretary. Therefore he proposed that instead of “Statistics Office” it should be called “Statistical Section of the Ministry of Interior.” Regarding its composition and attuned to the previous indication, he proposed the bureaucratic roster should be limited to a high officer, two first officers and two archivists, reducing the total staff from eight to five.<sup>174</sup> Both motions were rejected, the first by 7:1, and the second by 10:2<sup>175</sup>. Despite this setback, Egaña insisted on his austerity crusade and at the next session proposed a general salary cut, lowering the total annual project cost from \$9,000 to \$6,500. The only he maintained was that of the doorman. The motion had a mixed reception, approving the salary reduction of the three secondary officials and both archivists, but keeping the rest<sup>176</sup>.

So the version of the bill approved by the Senate in late 1844 was different from the original idea. The most notorious differences were scope of the archive’s documentary base and the annual cost of running the Office, modified by reducing the wages of minor officials. Although the Minister of Interior have attempted to shield the initiative, his intervention ended up being useless. Indeed, he had defended convincingly the Statistics Office, but did not do the same with the archive presuming that no one would question that aspect of the project. The discussion proved him wrong.<sup>177</sup> Nor did the editorial of Andrés Bello in *El Araucano* serve much to remove the views on which Egaña’s indications rested<sup>178</sup>. The thesis of fiscal austerity, which in those years predominated among the most conservative circles, triumphed without appeal.

However, the original idea of the Executive was restored in the Chamber of Deputies. Two government agents led the counteroffensive: Ramon Luis Irarrázaval and Manuel Montt. Irarrázaval, aside from his functions as Minister of Interior and sponsor of the project, officiated

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<sup>174</sup> In the original project the staff consisted of a chief, a first officer, three secondary officers, a first archivist, a secondary archivist and a doorman.

<sup>175</sup> SCL, Senate, session 9 (extraordinary), November 20, 1844, vol. XXXV, pp. 517-518.

<sup>176</sup> SCL, Senate, session 10 (extraordinary), December 4, 1844, vol. XXXV, pp. 522-523.

<sup>177</sup> Ramón Luis Irarrázaval, “Memoria que el Ministro de Estado en el Departamento de Interior presenta al Congreso Nacional, año de 1844,” in *Discursos primer quinquenio de la Administración Bulnes (1842-1846)*, pp. 239-240.

<sup>178</sup> *El Araucano*, Santiago, September 13, 1844.

as representative for the circumscription of Illapel and was also the president of the Chamber of Deputies; Montt, Minister of Justice, Worship and Public Instruction, was also deputy for Petorca and had been the main counterpart of Gay in the preparation of the Statistics Office.<sup>179</sup> Both reinstalled all the articles discarded by the Senate. The first point in discussion was the scope of the National Archive. The contracts and legal instruments issued by notaries, the minutes of municipal meetings, and the Council sessions of the University of Chile returned to the discussion. By the same token, Egaña's proposal for establishing of provincial archives was discarded without much discussion.<sup>180</sup>

The matters that sparked the most decisive conflicts was the number of staff members and their salaries. This time, the austerity policy was defended by Pedro Palazuelos, Liberal representative for the constituency of Ancud and Castro and who also served as General Auditor of War. Palazuelos' opinion was based on his experience in this latter position: for him it seemed contradictory that the government remunerated the second archivist with \$800 and the auditor with \$1,000 putting both functions at a relatively equal level –which of course he believed were not comparable. Beyond this minutiae, he considered that the total cost of the proposal exceeded the capabilities of fiscal absorption and diverted those resources from more pressing concerns. In his opinion, the generation of statistical knowledge, though important, “was not very necessary for the public service,” being thus inappropriate for the employees of the Office to have a more advantageous position than other State officials. Much more eloquent were his critiques on the salary of the director (\$2,500), an amount that overvalued not only the intellectual skills required for the position, but also the nature of the tasks involved. “The director of this Office,” he asserted on this issue, “is nothing more than an administrator of documents, an archivist, someone who orders the collection that successively will be formed with the documents [...] related to our present situation [...] he is only a keeper.” Neither did he see a great challenge in the preparation of annual reports, another of the tasks assigned to the director, which to his judgment was nothing more than “a reasoned summary of the works performed in the different branches” of the administration. In sum, both the position and the institution were overrated, its

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<sup>179</sup> It should be noted that neither the 1833 Constitution nor the Elections Act established incompatibilities between being employee of the State administration and officiate as parliamentarian. This explains, in part, how the electoral intervention of the Executive worked. Restrictions of this type will be passed later as part of constitutional reforms in the 1870s and 1880s, which sought to limit the formal and informal powers of the President of the Republic.

<sup>180</sup> SCL, Chamber of Deputies, session 6, June 18; 7, June 20; 8, June 25; and 9, June 27, 1845, vol. XXXVI, pp. 56-57, 68-70, 79-80, 89-90, respectively.

costs proved burdensome for the public treasure, and were outrageous considering the situation of other public officials who would see how new employees with supposedly menial tasks were better compensated on the salary scale.<sup>181</sup>

Although clumsily deployed, Palazuelos' critiques did not constitute a meaningless or immoderate vision of the statistical work. At the time, several definitions circulated regarding the discipline, and although some were more precise than others, all were right when describing the scope of statistical purposes. The problem was that, in this plurality, the field remained undefined, which not only hindered the organization of the administrative resources, but also alienated those who could contribute to its consolidation, especially in the initial phase. In this key, that of a generalized imprecision and potential misunderstandings, should be read Minister Irarrázaval's diagnosis shared when presenting the project in 1844. "Being statistics a new science among us," he said, "nothing is prepared for its cultivation and development," not even the reasons that could bring it closer to the people's concerns and the interest of the authorities<sup>182</sup>. Irarrázaval seemed to understand that the problems was not reduced to the allocation of resources or the enactment of laws to organize a statistical apparatus. This science depended on a wide-ranging educational work, aimed at both citizens and government employees, to set a real and shared perception of its meaning and its usefulness for State action. Although these words had been pronounced a year earlier, Irarrázaval recycle them now, when the project seemed to fade into the hands of what he called an "overt and evil spirit of thrift." In that mood he intervened to refute Palazuelos and those who had defended a similar position in the Senate.

The long and well-informed participation of the minister started by clarifying the objectives of the Statistics Office. The institution was far from being a simple archive or a place of "indigestible compilation of documents of various kinds," as Palazuelos sustained. Rather, it was a space of accumulation of data that served to the administration of the Republic. Only from this understanding –indicated Irarrázaval– was possible to understand why the majority of the nations of the world had embraced the production of this kind of knowledge, committing their

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<sup>181</sup> Like Egaña, Palazuelos proposed a correction to wages, assigning, almost arbitrarily \$1,000 to the Director, \$700 to the first officer and \$500 to the archivist. For details of his interventions, SCL, Chamber of Deputies, session 10, July 2, and session 11, July 4, 1845, vol. XXXVI, pp. 97-98 and 110-112, respectively.

<sup>182</sup> Ramón Luis Irarrázaval, "Memoria que el Ministro de Estado en el Departamento de Interior presenta al Congreso Nacional, año de 1844," in *Discursos primer quinquenio de la Administración Bulnes (1842-1846)*, pp. 239-240.

resources and recruiting their best citizens. The risks of ignoring its relevance were high, he warned, citing as an example what happened with the tax cadaster in the 1830s, when the government, based on data collected by private actors, decided to suspend a series of taxes that would be offset by that tribute. Those curious calculation errors, which according to estimates by the minister reduced real income by eight times, had left the Treasury with half the revenue than the repealed charges generated. In this case, the damage had been absorbed by the government and profits had swelled the coffers of individuals, but the reverse situation could well occur too. “Is it not possible that a Congress, marching blindly, with the best intentions, causes the same ruin of the people it claims to exalt? Another branch of State power, the Executive, what can it do without the necessary enlightenment offered by statistics, and only by statistics?” inquired Irarrázaval as part of his reflection.

The wage reduction approved by the Senate and deepened by Palazuelos did nothing but trivialize the relevance of these investigations and the efficiency that should distinguish those who develop them, Irarrázaval added. “Statistical works, either you consider its importance, its nature, its complexity, or the rigorous accuracy that should reign in them, require men above the average, of clear intelligence, not common, of enduring steadfastness, and endowed with that peculiar disposition to the details, so to speak, that just few possess.” Precisely for this reason it was necessary to “compose [the Office] of intelligent and experienced men prepared to revise with skill and sagacity good and bad reports, to advise and fill their gaps, and to enlighten with pertinent guidelines the officials and individuals who supply them.” But none of this could be waited for or demanded, he noted, allocating meager incomes to officials in charge of these investigations.

Despite its consistency, the intervention of the minister seemed to not invalidate the last reason given by critics: the situation of the Treasury. Irarrázaval knew that and therefore left it to the last minute: “So far I have discoursed on a hypothesis that does not exist. It is not true that the Chilean treasure is in poor circumstances, as some suggest: it is not true, gentlemen.” A “considerable sum” left with no destination in 1844 and the unexpected rising of \$200,000 in tax revenues the same year overrode such apprehension and seemed sufficient, in his view, to dismiss Palazuelos’ indication and discard the cuts approved by the Senate. The minister’s thesis

prevailed, but it was a laborious triumph. Only after nine successive votes the Chamber of Deputies approved the article in its original form by mid-1845.<sup>183</sup>

Although the new version of the project was immediately sent to the Senate for review, the process was not resumed until the 1847 legislature. The changes sanctioned in both discussions were substantive and, therefore, conflictive points returned to be treated with the same initial intensity during June and July of that year.<sup>184</sup> Regarding the General Archive, the motion to store the records of municipalities was definitely rejected and the idea of preserving all contracts and instruments issued by notaries was reaffirmed. On the other hand, the creation of provincial archives was dismissed. In regard to the Statistics Office, wage reductions were reinstated for secondary officials and the second archivist, again reducing the annual budget of the service. With those changes the law was finally enacted on September 17, 1847.

Although the project was approved, its profile differed from what the government had proposed. Interestingly, the debate gave a glimpse of some dissonances between the valuation of certain administrative activities and the release of resources that their development demanded. The salary of the Office's employees was one of the more sensitive issues in the processing of the project. Table 2.1 shows the changes such item experienced at various stages of discussion, marked by the interventions of Egaña and Palazuelos and the respective changes in each Chamber.

Had the interventions of both congressmen any grounding in reality? The 1840s, when the initiative was discussed, show a significant increase in the fiscal budget, which was associated with the expansion of State institutions and the strengthening of its territorial presence. The establishment of the Directorate of Roads, Canals, Bridges and Roadways and its Civil Engineers Corps; a series of educational institutions, including the University of Chile; and the organization of the Internal Administration regime, with the consequent rising of remunerations for intendants and governors, would consume an important part of these new resources. In this context of growth and institutional specialization, where salaries would begin

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<sup>183</sup> SCL, Deputies, session 12, July 7, 1845, vol. XXXVI, pp. 120-125.

<sup>184</sup> Sessions of the National Congress (hereafter) SCN, Senate, 4 and n/n, June 14 and 18, 1847, pp. 26-28 and 71-73, respectively; Chamber of Deputies, sessions 9 and 14, June 30 and July 12, 1847, pp. 91 and 182; and Senate, session n/n, and July 19 and 30, 1847, pp. 167 and 229.

to have a relative weight on the fiscal budget, the proposal of the Statistics Office seems viable and pertinent<sup>185</sup>.

TABLE 2.2. Changes in in the salaries of the Statistics Office’s employees during the discussion of the project (1844-1847) (in Chilean pesos)

Job Title	Project (1844)	Egaña	Senate	Deputies	Law (1847)
Chief	2,500	1,900	2,500	2,500	2,500
First Official (1)	1,200	800	1,200	1,200	1,200
Second Official (3)	1,000	700	700	1,000	700
First Archivist (1)	1,200	800	800	1,200	1,200
Second Archivist (1)	800	600	600	800	600
Doorman	100	100	100	100	100
Office Supplies	200	200	200	200	200
<b>TOTAL (in pesos)</b>	<b>9,000</b>	<b>6,500</b>	<b>7,500</b>	<b>9,000</b>	<b>7,900</b>

Source: own elaboration based on SCL, Senate, session 11 (ordinary), July 15, 1844, p. 126; session 9 (extraordinary), November 20, 1844, pp. 522-523; session 14, on July 18, 1845, p. 162, and *El Araucano*, Santiago, September 17, 1847, p. 5.

If we focus on the period 1844-49, from when the initiative is presented until the Statistics Office is formally considered in the fiscal budget, the authorized annual expenditure increased from \$3,269,985 to \$4,416,359 [table 2.2]. The Ministry of Interior and Foreign Affairs, the secretary on which the Office would depend, also exhibited an increase from \$384,845 to \$561,022. This is a significant rising, but lower than that of the ministries of Finance and of War and Navy, which together came to control more than 70% of the State budget. What was the impact of the establishment of the Statistics Office in that distribution? In the original 1844 draft, the annual cost of service was set at \$9,000, equivalent of 2,3 percent of the budget allocated to the Ministry of the Interior that year. The amount matched the criteria of other incumbent political figures, such as Diego José Benavente, who in his *Opúsculo* (1841) had proposed an annual cost of \$10,000 for a similar institution, albeit with a more limited research plan. In the following years, considering the amendments to the project, the budget of the Office

<sup>185</sup> Dirección General de Contabilidad, *Resumen de la Hacienda Pública de Chile desde la Independencia hasta 1900* (Santiago, Imprenta Cervantes, 1901), “II. Entradas, gastos y presupuestos,” p. 21 and López, *op. cit.*, p. 135.

stood at 1,5 percent of the average annual budget. Based on these figures, it is safe to say that the institution in no case meant and excessive extra-charge to the Treasury, at least not in the terms indicated by Egaña and Palazuelos in their interventions.

TABLE 2.3. Annual cost of the Statistics Office in relation to the budget of the Ministry of Interior and the total of the Public Administration (1844-1849) (in Chilean pesos)

	1844	1845	1846	1847	1848	1849
Total Budget	3,269,985	3,566,260	3,741,072	3,484,204	4,300,245	4,416,359
Ministry of Interior and Foreign Affairs	384,845	499,498	605,118	373,775	533,132	561,022
Statistics Office (annual cost according to the discussion)	9,000	7,500	9,000	7,900	7,900	7,900
Percentage of the budget of Interior	2,33%	1,5%	1,48%	2,11%	1,48%	1,40%
Percentage of the total budget	0,27%	0,21%	0,24%	0,22%	0,18%	0,17%

Source: own elaboration based on the *Leyes de presupuestos para los gastos generales de la administración pública* 1844-1849.

However, when comparing the specific and total allocations with other departments of the public administration, it appears that the remuneration of officials of the Statistics Office were slightly above the average of other bureaucrats. Although they were not beyond reasonable margins, there was a problematic differential that explains interventions such as Egaña's. If we take as reference the Public Administration Budget Law of 1845 and the wages of the original proposal, the salary assigned to the director of the Office (\$2,500) was similar to that of the Intendant of Santiago and of the Secretary of the Customs House of Valparaíso, which was the original post of Urizar, but higher than that of the president of the University of Chile (\$1,500). If we compare it with the highest salaries within the Public Administration, such assignment corresponded to 20 percent of the salary of the President of the Republic and 55 percent of a Minister of State. Although Egaña tried to decrease it, the amount originally defined for that position did not change, showing some coincidence with respect to the salaries of high-ranking State employees. The case of the rest of the officials had a different outcome. The most

important gaps were in the remuneration of the second official and archivists, usually higher than that of bureaucrats with equivalent tasks in other ministerial departments. First and second archivists of the *Contaduría Mayor* [Supreme Fiscal Comptroller] of the Ministry of Finance, for example, received \$600 and \$500 respectively; lower than the \$1,200 and \$800 assigned to the first and second archivists of the Statistics Office. Also, while second officials of any ministry received \$800 per year, those of the Office would receive \$1,000. At an institutional level, the budget of the Office was higher than that of the Normal School (\$5,020), which included the salary of the director, an assistant, thirty student scholarships and rental payments. It was also higher than that of the Quinta Normal School of Agriculture (\$7,667), considering the salary of its director, two stewards, a doorman, eight laborers, and the acquisition of trees, seeds, tools, and extraordinary expenses<sup>186</sup>.

Such a comparison gives some support to Egaña's indications, whose proposal of reduction, particularly in the case of lower-ranking officials, aimed to reduce any gaps between the officials of the Office and their counterparts in the Public Administration. Regarding this point his intervention was effective, because this criterion prevailed in the allocation finally approved in 1847. With that modification, the total budget of the Office and the salaries of its officials approximated the average remunerations of the Ministry of Finance and also of War and Navy, but slightly distanced from both the Interior as well as Justice, Worship and Public Instruction –which operated with lower budgets.<sup>187</sup> These figures allow understanding to what extent the initial budget could result burdensome for the defenders of fiscal austerity and why the reductions were approved at the expense of lower-ranking officials, which had been the main anomaly of the government proposal.

## 2.5. The transitional years: general and sectorial statistics

The main objective of the government's project was to institutionalize a national informational system that takes care of the general statistics of the Republic. Although the sectorial accumulation of data was part of it, it was expected that the Statistics Office was the institution

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<sup>186</sup> *Ley de presupuestos para el año de 1845* (Santiago: Imprenta de La Opinión, 1844).

<sup>187</sup> The approved final budget matched, for example, the annual funding of the Customs Offices of the Ministry of Finance, but was still higher than that of institutions like the National Library and the National Museum (dependent on the same budgetary assignation) or the maintenance of the provincial high schools network. See *Ley de presupuestos para los gastos generales de la administración pública en el año de 1849* (Santiago: Imprenta del Progreso, 1849).



responsible for determining protocols and organizing the works developed both at sectorial and provincial levels. However, the discussion of the law showed the desirability of separating the production of general statistics, which in its provisional structure already revealed significant setbacks, from specialized or sectorial statistics, like commercial and judicial ones, which advanced according to their own pace and employing autonomous production protocols. Indeed, both the Minister of Finance and of Justice, Worship and Public Instruction included in their budgets allocations for officials dedicated exclusively to the statistics of each secretary, a measure that caused tension as the discussion of the project progressed, since this meant a redundant expenditure before the establishment of an institution with similar goals and its own budget. The coordination between general and specific statistics, although obvious in theory, was not so in practice. Gaps in production times and even in terms of accuracy would become a recurrent source of tension within the emerging Chilean statistical system.

The production of judicial statistics had started before the provisional organization of Statistics Offices, as the charts and news published in *El Araucano* in the 1830s and the reports of the Ministry of Justice, Worship and Public Instruction of that decade and the next confirm. Its execution, however, confronted the same problems as general statistics: lack of employees to collect and classify data and the low reliability of its results. For instance, that was the diagnosis in 1842, when it was hoped that the appointment of a judicial inspector would serve to transmit instructions to standardize and regularize the remittance of reports. The following year, and as part of the same thrust, the government ordered that in all the courts of the Republic a copybook was made available to register sentences of criminal cases along with the age, trade, and education level of the inmate as well as striking aspects of the crime; along with it there would be another copybook with judgments in civil cases<sup>188</sup>. Both measures would lay the foundations for a more precise statistics. In order to coordinate these efforts, the budget of the ministry for 1844 contemplated an allocation of \$1,000 for an official exclusively in charge of judicial statistics. Although such allocation opened up the possibility of hiring a new official, it was decided to appoint (in commission) José Antonio Carrasco, then employed in the Customs House of Valparaiso. It was a move similar to the designation of Urizar as provisional director of the Statistics Office. Not surprisingly, Egaña also tried to suppress this allocation in the discussion of

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<sup>188</sup> Manuel Montt, "Memoria que el Ministro de Estado en el Departamento de Justicia, Culto e Instrucción Pública presenta al Congreso Nacional," años 1842-1843, in *Discursos primer quinquenio de la Administración Bulnes (1842-1846)*, p. 28 y 144-145, respectively.

the 1845 budget –a year after the measure– on the grounds that the post would be irrelevant once the Office was approved, but his indication was scrapped and the commission was renewed because the evaluation of the official’s performance was positive. Notwithstanding, in the following year it was necessary to clarify to which ministry, Justice or Finance, his salary had to be imputed. Since administratively speaking he continued being an employee of the Customs House, his name appeared on both payrolls and there was no certainty if he received only one or both remunerations. Finally, Carrasco remained working at the Ministry of Justice, but suppressing the allocation, which explains the disappearance of the post in the annual budget.<sup>189</sup>

Commercial statistics on the other hand, were advancing on a regular basis. From 1835 the Customs House official José Agustín Montiel began to assemble and publish figures of imports and exports of the port of Valparaiso, establishing the pillars of a work that by the end of 1843 would be extended to the entire Republic thanks to the creation of a section of Commercial Statistics in the Customs House. Like in the case of the Ministry of Justice, an annual \$1,000 budget was assigned to the post, but of permanent character. Albeit the measure coincides with the general impetus the government of Manuel Bulnes gave to this science, it also expressed the interest of autonomizing commercial statistics from the “civil and judicial” ones, due to its own pace and the methodological peculiarities of its register. In this sense, the establishment of a specialized section under the supervision of the Ministry of Finance was the formalization of a breach that was already operating in practice. By mid-1840s commercial statistics, especially of foreign trade, had reached a higher level of development than other sectors. For instance, there were annual records of imported goods, with designation of species, quantity, value and origin, the same for exports and products in transit. Such numbers not only allowed measuring the taxes received by the State, but also the activity of every port, percentage of commerce covered by the national merchant marine, and estimations on the place of the country among the mercantile nations of the globe. Toward the end of the decade, these measurements would be refined and expanded toward price statistics, key for industry, trade and domestic consumption.<sup>190</sup>

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<sup>189</sup> *Ley de presupuestos de los gastos de la administracion pública para el año de 1844*, SCL, Chamber of Deputies, session 56, November 10, 1843, vol. XXXII, p. 611; Manuel Montt, “Memoria del Ministro de Justicia, Culto e Instrucción Pública de 1844,” SCL, Chamber of Deputies, session 41, September 27, 1844, vol. XXXIV, p. 457; Egaña’s amendment, SCL, Senate, session 40, October 17, 1844, vol. XXXV, p. 471; on ministerial budgetary assignments, SCL, Chamber of Deputies, session 15, August 1, and session 16, August 20, 1845, vol. XXXVI, p. 261 and 272-273.

<sup>190</sup> On commercial statistics, SCL, Chamber of Deputies, session 48, October 12, 1844, vol. XXXIV, p. 567 and session 12, July 7, 1845, vol. XXXVI, pp. 121-122; on its progress in comparison to general statistics, see Jerónimo

Similar measures were adopted with regard to medical statistics, trying to attune the research plan of the Statistics Office with the attributions given to the Faculty of Medicine of the University of Chile from its creation. To advance in the knowledge about endemic and epidemic diseases in the country, in December 1848 the government ordered that a sheet was placed at the beds of all hospitals, registering the identity of the patient, age, marital status, occupation, place of birth, details of the illness, and name of the attending physician. These sheets were prepared between the two institutions in order to rectify the omissions and inaccuracies detected in the reports received hitherto. The Statistics Office was responsible for making sure the files reached all healthcare facilities, committing their managers to the proper performance of the task.<sup>191</sup>

General statistics, on the other hand, was practically paralyzed. In 1845 the results of the population census of 1843 were still not completed and little had been advanced in the collection of provincial data. The working conditions were not optimal. Because of the lack of venues for placing public offices, the statistical service had had to work frequently at Urizar's house, where his personal assets shared room with official reports and documents<sup>192</sup>. Among the scarce advances of this period can be count the publication of the *Estadística de la República de Chile Provincia del Maule* (1845), which the government ordered to publish and publicize to put pressure on the rest of the intendancies. The text, of about 170 pages, accurately followed the thematic order established in Urizar's research plan: 1) territory; 2) population; 3) natural outputs; 4) trade and industry; 5) intellectual culture, justice and public charity; 6) public administration; and 7) a historical account of the main population centers. It was expected that this structure was going to facilitate comparison with the volumes to be published subsequently, albeit at the time the degree of progress of research in each province was unknown. Perhaps for the same reason, the publicity that accompanied the publication of this work emphasized the idea that this was the first volume of the great statistics of the Republic, the first result of a wide-

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Urmeneta, "Memoria que el Ministro de Estado en el Departamento de Hacienda presenta al Congreso Nacional en 1851," *Discursos de apertura en las Sesiones del Congreso Nacional y Memorias Ministeriales correspondientes al segundo quinquenio de la Administración Bulnes (1847-1851)* (Santiago: Imprenta del Ferrocarril, 1858), pp. 121-122; and Jovino Novoa, "Memoria que el Ministro de Estado en el Departamento de Hacienda presenta al Congreso Nacional en 1861," *Discursos de apertura en las Sesiones del Congreso y Memorias Ministeriales correspondientes al segundo quinquenio de la Administración Montt, 1861* (Santiago: Imprenta del Ferrocarril, 1861), p. 403.

<sup>191</sup> Also, intendants and departmental governors had to oversee that patients were treated by qualified physicians, being indispensable to have at least one of them in each establishment. "Estadística médica," Santiago, December 15, 1848, *Boletín de las leyes, órdenes y decretos del Gobierno* (Santiago: Imprenta de la Independencia, 1848), Book XVI, no. 12, p. 345. The use of the medical file was proposed by the protophysician Lorenzo Sazié, an active informant during the implementation of this proposal, AN. MINT. Vol. 122, ff. 131-135v.

<sup>192</sup> SCL, Senate, session 5, June 16, 1845, vol. XXXVII, p. 41.

ranging plan that in a matter of years would cover the entire national territory. Likewise, the decision to publish “one volume per province” gave the advantage of freeing the time of publication from the local pace of information gathering, keeping thus alive the mirage of an eventual general text. Urizar announced in the introduction that once formed the entire collection, a final volume with summaries of the provincial descriptions would be edited, studying the common elements of the Republic and what might be inferred from comparisons.<sup>193</sup> However, the publication had no impact and Urizar’s critiques to the intendancies was sterile. While some of them disposed of more resources than the Province of Maule, had not shown the same efficiency. The reaction from the provinces was tepid, except for Valdivia, where the Intendant Salvador Sanfuentes began compiling figures and notes for a statistical report that was left unfinished due to his appointment in 1846 as Minister of Justice, Worship and Public Instruction.<sup>194</sup> The appearance of something similar like the “General Statistics of the Republic” should wait at least three more decades.<sup>195</sup>

The entering into force of the law of 1847 was somehow problematic and was delayed until the following year, when the Office began operating according to its new structure and its new staff.<sup>196</sup> By that date and as part of several changes among the State institutions, the service moved to La Moneda, the presidential building, along with the ministries. Thus the problem of limited space was temporarily solved, although without knowing for how long the new facility would be able to accommodate the documents that would be received as part of the assembly of

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<sup>193</sup> Oficina de Estadística, *Estadística de la República de Chile. Provincia del Maule* (Santiago: Imprenta de los Tribunales, 1845), pp. iii-iv. According to Diego Barros Arana, the diligent and exceptional data collection process in this province was owed to the zeal of José Miguel Bascuñán, former Auditor of War of the Southern Army and Intendant of the Maule Province since mid-1843. Bascuñán had replaced Domingo Urrutia, an army colonel of the Frontier Army supposedly indifferent to the law and the formalities expected from a modern State official. Diego Barros Arana, *Un decenio de la Historia de Chile (1841-1851)*, 2 vols. (Santiago: Imprenta y Encuadernación Universitaria, 1905-1906), vol. I, p. 343.

<sup>194</sup> These papers were published posthumously in 1862. See Salvador Sanfuentes, “Estadística de la provincia de Valdivia en 1846. Memoria escrita por el finado don Salvador Sanfuentes, Intendente que fue de esa provincia,” *Anales de la Universidad de Chile* (Santiago: Imprenta del Pacífico, 1862), Serie 1, vol. 21, pp. 210-249.

<sup>195</sup> While the statistics of the Province of Maule was the only text resulting from this first attempt to draft a “General Statistics of the Republic,” Urizar did not renounce the possibility of producing miscellaneous texts that contribute, at least marginally, to the knowledge of the country. A few years later he published the *Guía Jeneral de la República de Chile correspondiente al año de 1847* (Valparaiso: Imprenta del Mercurio, 1847), a sort of almanac or travel guide written collectively, but under his supervision.

<sup>196</sup> The mention to this “embarrassing” beginning appeared in a circular letter sent by Manuel Camilo Vial, then Minister of Interior, in which he announced the launching of the Office. In the same document Vial emphasized that intendants and ministries of State were compelled to send any information or file that the Statistics Office may require to meet its objectives. Ministry of Interior, Santiago, June 26, 1848. *Boletín de las leyes, órdenes y decretos del Gobierno* (Santiago: Imprenta de la Independencia, 1848), Book XVI, No. 6, p. 190.

the General Archive. Also, Fernando Urizar Garfias' commission ended, so he returned to Customs House in Valparaíso to the position of General Administrator. José Miguel de la Barra (1799-1851) was appointed as his replacement in the head of the Statistics Office.

## 2.6. José Miguel de la Barra and the 1847 law

Statistics was not alien to de la Barra. As Intendant of Santiago, he had to lead the works of the controversial census of 1843; by then he also served as Dean of the Faculty of Philosophy and Humanities at the University of Chile, an institution committed to fostering statistical research. He also had a considerable diplomatic experience, serving in his youth in the secretariat of the first Chilean Legation in London and then as Minister Plenipotentiary of Chile in France. It was in the latter position that he became a member of the French Society of Universal Statistics, established in Paris in 1829.<sup>197</sup> Now, at the head of the Statistics Office, de la Barra faced three immediate tasks: establishing regular information delivery protocols, publishing the annual repertoire ordered by law, and starting to assemble the General Archive. These were not easy tasks, particularly the first two, but de la Barra thought possible to approach them with a new statistical logic: instead of following the idea of producing provincial statistics and, from there, advancing toward the general one, as did his predecessor, he would focus on the formation of a statistics organized by industry or sectors as platforms for producing national portraits.<sup>198</sup>

Administratively speaking, however, the scenario was complex. In order to counteract the indolence of State officials, in March 1847 the government had issued a decree aimed at eroding the non-observance of administrative laws and bad behavior of employees, which resulted in acts of contempt, internal harassment and noncompliance with the assigned tasks. Days later another norm was issued, this time emphasizing the need to strengthen “the morality of the employees in the various branches of the public administration.” By means of threats of “criminal suits” the government intended to banish “the vices that offend probity, the good administration of

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<sup>197</sup> For a useful biographic portrait of José Miguel de la Barra as a representative of the nineteenth-century “enlightened bourgeoisie,” see Rodrigo Hidalgo y Rafael Sánchez, “La ciudad con ojos de autoridad. El plan de reforma de Santiago del intendente José Miguel de la Barra, 1843-1849,” *Scripta Nova*, Vol. X, núm. 218 (2006), <http://www.ub.es/geocrit/sn/sn-218-31.htm> (last access: August 10, 2015); also Virgilio Figueroa, *op. cit.*, vol. II, pp. 127-128 and Pedro Pablo Figueroa, *Diccionario biográfico de Chile* (Santiago: Imprenta y Encuadernación Barcelona, 1897-1901), vol. I, pp. 168-169.

<sup>198</sup> Annual Report to the Ministry of Interior, May 16, 1850, AN. MINT., Vol. 122, f. 156.

revenues and order.”<sup>199</sup> However, widespread neglect seemed immune to these counterclaims. That is clear from the reports filed by de la Barra to the Ministry of Interior as part of his duties. The one from 1850 is a good example. The core of his presentation focused on the production of three particular statistics, crime, health and mining, a model related to his own statistical plan. In all cases the conclusion was similar: it was impossible to report progress. “While working on the production of these statistics with the information preserved in the Office,” indicated, “the provinces were asked to send updated information, and they received forms and protocols to ease the investigations necessary to obtain them. Unfortunately such data never arrived, except for some honorable exceptions, despite the repeated demands from the Office. This omission has not much to do with the willingness of officials that could provide such information, as with the lack of custom and means to gather what was demanded.” De la Barra’s idea of replacing provincial statistics by sectorial statistics did not meet a different fate. Although specialized statistics conducted by ministries were showing signs of progress, it was not the same to do so from a central institution and embracing the whole territory at once. Three years after taking office, his administration seemed sunken in sterility.<sup>200</sup>

On the only front where he was able to report some progress was the preparation of the annual summary defined in the law of 1847. As such de la Barra presented the *Repertorio Nacional* (1850) [figure 2.1], which in its nearly three hundred pages combined issues as disparate as reasoned chronologies of political and ecclesiastical authorities of the country (starting from the Inca Empire); population registers by administrative unit following the census of 1843; descriptions of government offices, with the names of their employees; a list of lawyers, physicians, midwives, apothecaries, and land surveyors practicing in the Republic; the state of religious institutions; the ranks of the army; the list of merchants of Santiago and Valparaíso; the movement of the population by province in 1848; and an extensive biography of the conqueror Pedro de Valdivia, which would be part of a series on famous figures in the history of the nation.

Although its printers advertised it as a unique piece among the works of the same type so far published, de la Barra was aware of its limitations and was clear to present it as a simple trial

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<sup>199</sup> Public Employees, Ministry of Interior, Santiago, March 6 and 7, 1847, *Boletín de las leyes y de las órdenes y decretos del Gobierno* (Santiago: Imprenta de la Independencia, 1847), Book XV, No. 3, pp. 76, 80-81.

<sup>200</sup> “Documentos relativos a la Memoria del Señor Ministro del Interior de 1850. N<sup>o</sup>. 1. Oficina de Estadística. Santiago, 16 de mayo de 1850,” *El Araucano*, Santiago, September 17, 1850. On the problematic state of health statistics, AN. MINT., Vol. 122, ff. 158-158v.

of a perfectible saga<sup>201</sup>. That becomes clear, at least, from the first note he sent to the Ministry of Interior announcing its preparation (and describing a different index than the final one); the lines he dedicated it in his report to the same secretary in 1850; and his introduction to the work itself. Acknowledging the lack of documentation in the Office's archive; deferring for future editions the comparative works due to the partial nature of the data collected; and accusing delays in the printing process (which meant that on the lists of public employees appeared several officials who at time of the publication had already died or left office), de la Barra finished reproducing the same arguments as Urizar had used to address the gap between expectations and results<sup>202</sup>.

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<sup>201</sup> *El Progreso*, Santiago, December 24, 1850.

<sup>202</sup> José Miguel de la Barra to the Minister of Interior, Santiago, November 25, 1848, AN. MINT., Vol. 122, ff. 130 y 130v; *El Araucano*, Santiago, September 17, 1850 and Oficina de Estadística, *Repertorio Nacional formado por la Oficina de Estadística en conformidad del artículo 12 de la ley de 17 de septiembre de 1847*, pp. i-ii.

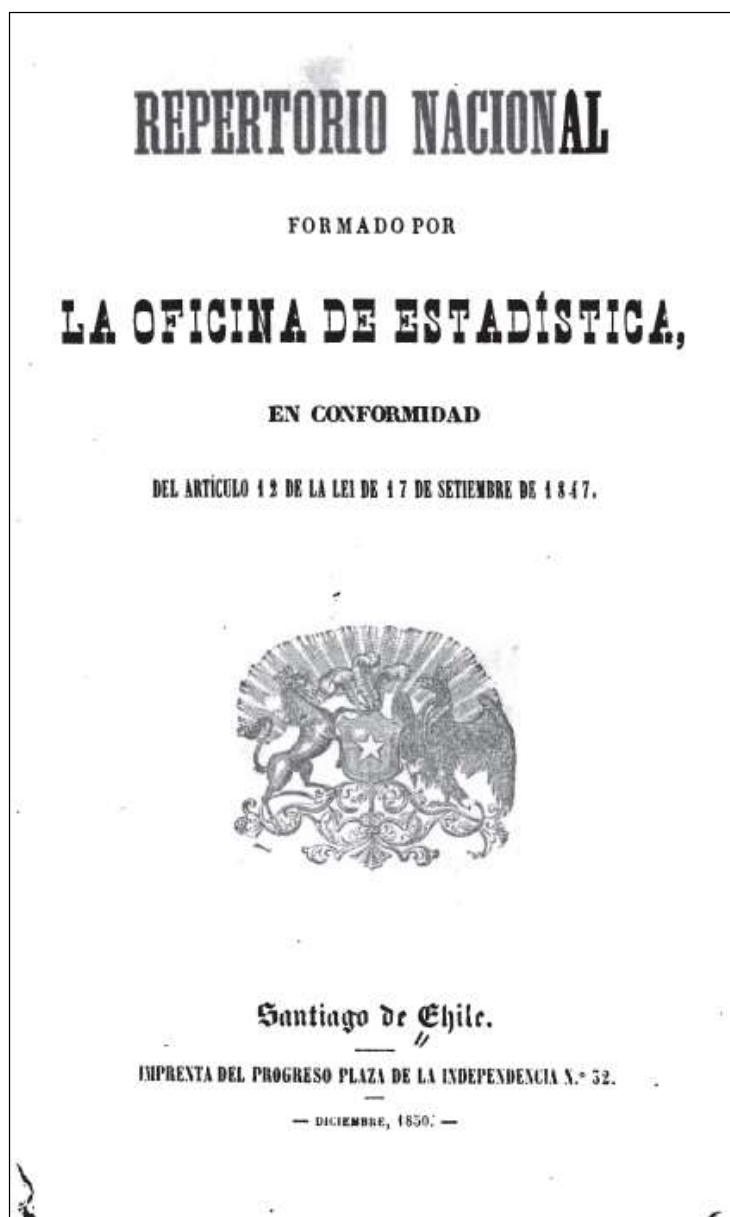


Figure 2.1. Cover of *Repertorio Nacional* (1850), edited during José Miguel de la Barra's administration (1847-1851). Image: Memoria Chilena, Biblioteca Nacional de Chile.

While the *Repertorio Nacional* filled the editorial void left by the impossibility of producing the “General Statistics of the Republic,” it was far from signifying progress in the production of state knowledge. In fact, de la Barra’s warnings allow us to understand why the publication was more an almanac than a scientific report, and also why there were no subsequent editions, as occurred with the statistics of the Province of Maule.



The inability of the Office to articulate an efficient informational network led the government in March 1851 to intervene it arguing that “in its current form” the service did not fulfill properly its purpose, being necessary to order a substantial revision.<sup>203</sup> Months later, the Minister of Interior, Antonio Varas, presented the result of it identifying the critical knots. One was the extension of the research plan, disproportionate for an institution in the making and inattentive to the international experience, which advised a gradual progress in these matters. Based on the poor results, there was no doubt that the thematic breadth had turned the resources sterile. The same argument applied to the evaluation of the staff and the organization of the Office itself, limited regarding its objectives. But none of these obstacles was as decisive as the imbalances resulting from the disorganization of the provincial administration, the key link in the informational network that should gather the data required by the service. As long as the officials located in the local administrative spaces were not assuming these tasks with thoroughness and steadfastness, not fulfilling their corresponding role in the informational structure of the State, nothing beneficial could be expected from the Statistics Office. What to do from here on in? For the time being and while the provincial government was consolidated, there was nothing more than to calibrate the expectations, re-define the scope of the research and reorganize the staff of the institution.<sup>204</sup>

A similar fate met another institution set up by the law of 1847, the General Archive. The law had clearly identified the period and protocols the different institutions that transferred their archives were ordered to follow.<sup>205</sup> To comply with it, two years later the government decreed it mandatory for ministries and public establishments to send their documents in the time limits specified, as notaries had to do with the copies of the records and documents they were issuing.<sup>206</sup> It was this last point, that of the notaries, which eventually blurred the assembly of the institution. As anticipated in the discussion of the law, soon the main problem of the

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<sup>203</sup> AN. MINT., Vol. 122, f. 180.

<sup>204</sup> Antonio Varas, “Memoria que el Ministro de Estado en el Departamento de Interior presenta al Congreso Nacional, año de 1851,” in *Documentos Parlamentarios. Discursos de apertura en las Sesiones del Congreso y Memorias Ministeriales correspondientes al segundo quinquenio de la Administración Bulnes (1847-1851)* (Santiago: Imprenta del Ferrocarril, 1858), pp. 662-663.

<sup>205</sup> However, the head of the Statistics Office sent some specifications regarding the order and presentation of the documents dispatched to the Archive. That was the case, for example, of ministerial archives, which he requested to be sent as bound books ordered by year and with their respective indexes. The Office could not undertake this task, he warned, due to the costs of bookbinding and the narrowness of its staff. Santiago, July 1848, AN. MINT., vol. 122, f. 115.

<sup>206</sup> Statistics Office, Santiago, April 25, 1849, *Boletín de las leyes y de las órdenes y decretos del Gobierno* (Santiago: Imprenta de la Independencia, 1849), Book XVII, No. 4, pp. 39-38.

reproduction of the documents to be sent to the State Office became apparent: who would assume the cost of the operation? The notaries had decided to impose that cost on their clients, but that entailed applying a sort of indirect tax not approved by law, violating the Art. 148 of the Constitution. Neither was it wanted to force the notaries to support this expense. In October 1850 it was decided to suspend the transference of these documents to the General Archive while Congress sought a formula to solve the problem. Being fundamental to determine the annual cost of these operations, the Courts of Appeals were charged to request from their nearest notaries drafting reports on the quantity of documents and the number of sheets that would be involved in the reproduction process. Despite the authorities' insistence, by the end of 1851 only the Court of Appeals of Concepción had sent this information<sup>207</sup>. Even though the Statistics Office kept the two archivists on the roster and conserved part of the scarce material received, the idea of the archive, in the original form, was losing relevance. The momentum will be retaken four decades later, in 1887, as part of a major reorganization of the State secretaries.<sup>208</sup>

The change of direction given by the Minister of the Interior, Antonio Varas, put an end to the administration of José Miguel de la Barra, who left office being sick (he died that year) and in the midst of acute political crisis of the 1851 Revolution. This conflict, instigated by the imminent arrival of Manuel Montt, the officialist candidate, to the Presidency of the Republic, was a reaction to the authoritarian and centralist practices that the Conservatives had imposed since arriving at power in the 1830s. Hence, the clear anti-authoritarian component of the movement; that the most active rebellious foci were La Serena in the north and Concepción in the south; and that the youngest generation of local Liberalism, committed to reforming the 1833 Constitution and a major opening of the political arena, appear among the most vigorous conspirators. After the uprising, which was quickly conjured up by pro-government forces, an important part of this generation went into exile, and this is key to understanding their

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<sup>207</sup> Ministry of Interior to Courts of Appeals of Santiago, La Serena and Concepción and to the Chief of the Statistics Office, Santiago, October 29, 1850, AN. MINT., Vol. 277, ff. 25 y 25v and A. Varas, "Memoria... presenta al Congreso Nacional, año de 1851," p. 663.

<sup>208</sup> Its only achievement was the gathering of 41 volumes of the Intendancy of Santiago with correspondence from 1818-1837, two volumes with copies of notary documents from Cauquenes and Linares and seven volumes of the register of agricultural properties between 1832 and 1838 (six are preserved today in the collection of the General Directorate of Statistics at the National Archives). See Archivo Nacional de Chile, *El Archivo Nacional. Antecedentes de su fundación y reseña de la labor realizada desde 1927 a 1945* (Santiago: s.p.i., 1946), pp. 3-16; Javier González, *Archivo Nacional* (Santiago: Dirección de Bibliotecas Archivos y Museos, 1983), pp. 54-60 and Pablo Muñoz and Emma de Ramón, "Introducción," in Archivo Nacional Histórico, *Guía de Fondos del Archivo Nacional Histórico. Instituciones coloniales y republicanas* (Santiago: Centro de Investigaciones Diego Barros Arana, DIBAM, 2009), pp. 11-19.

identification as a group and the politico-intellectual networks woven abroad.<sup>209</sup> The experience of these young liberals is relevant because many of them will have a fleeting passage through the Statistics Office, which during those years operated as one of the hotbeds of the State bureaucracy. On this list appear Juan Bello, Eusebio Lillo, Miguel Luis Amunátegui and Francisco Bilbao, all frontline actors in the genealogy of local Liberalism.

The fate of this group, which joined the Office during these first years, became unfavorable toward 1850, coinciding with the time when the government intervened the institution. Eusebio Lillo was fired in May because of repeated absences and a poor performance. Health problems forced Juan Bello to seek numerous sick leaves that ended up distancing him from his duties. He was dismissed in October 1851 and with him also left the second official Agustín Ovalle. Bilbao's situation was somewhat more complex. His appointment as second official of the Statistics Office had occurred in mid-1849, while living in Europe. Based on positive reports about his behavior and dedication to study, the government decided to recruit him as a public servant advancing him one year's salary. In return, Bilbao was obliged to study

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<sup>209</sup> Born around the 1820s and the following decade, this group was the first generation of political actors raised under the Republican order, and to varying degrees they embraced liberal ideology. Scholar Bernardo Subercaseaux grouped them under a prosopographic criterion: "Among the intellectuals who contribute to this climate are, first [...] José Victorino Lastarria (1817-88), teacher and chronicler of his own generation; also Antonio García Reyes (1817-55); Jacinto Chacón (1820-95); Francisco Bilbao (1823-1865); Eusebio Lillo (1826-1910) and Manuel Antonio Matta (1826-1892); also some disciples of them who begin to participate in public life at the end of Manuel Bulnes's presidency (1841-1851): Miguel Luis Amunátegui (1828-88); Manuel Bilbao (1828-95); Guillermo Matta (1829-99); Diego Barros Arana (1830-1907); Gregorio Víctor Amunátegui (1830-98); Benjamín Vicuña Mackenna (1831-86) and Joaquín Blest Gana (1832-80)." To them one could add other figures, like Santiago Lindsay (1825-76) and Francisco Solano Astaburuaga (1817-92), who will be key figures in the history of the Statistics Office during the nineteenth century. The climate to which Subercaseaux referred to is that of distension, openness and intellectual effervescence that prevailed during the government of Manuel Bulnes, which allowed to set the first limits of what would be the cultural field in Chile's authoritarian era. The elders of this group, led by Lastarria, gave life to the Literary Movement of 1842, which shared some of the political concerns of the 1837 Generation in Argentina. The most radicalized among them, nicknamed by Manuel Vicuña "spare liberals" (*liberales de recambio*) and who will defend an advanced version of liberalism (at least with respect to the version embraced by the "old-time *pipiolos*" of the 1820's), coincided toward 1850 in the Reform Club (*Club de la Reforma*) and the Society of Equality (*Sociedad de la Igualdad*), the latter inspired by the European revolutionary ideals of 1848. After being defeated in the Revolution of 1851, several members of this group departed into exile. Upon return, some engaged in a new revolutionary uprising, also of provincial and anti-authoritarian roots, in 1859. From these ranks will emerge the politicians who lead the political transition toward liberalism after the end of the Manuel Montt's presidency in 1861, putting thus an end to three decades of conservative governments. Bernardo Subercaseaux, *Historia del libro en Chile (alma y cuerpo)* (Santiago: LOM Ediciones, 2000 [1983]), p. 47; also Simon Collier, *Chile. La construcción de una república, 1830-1865. Política e ideas* (Santiago: Ediciones Universidad Católica, 2005), p. 292; regarding the role of this generation in defining the limits of the authoritarian cultural field, Ana María Stüven, *La seducción de un orden. Las élites y la construcción de Chile en las polémicas culturales y políticas del siglo XIX* (Santiago: Ediciones de la Universidad Católica de Chile, 2000). The generational dimension of the conflicts within Chilean liberalism ("spare liberals" versus "old-time *pipiolos*") has been analyzed by Manuel Vicuña in his essay *Un juez en los infiernos. Benjamín Vicuña Mackenna* (Santiago: Ediciones Universidad Diego Portales, 2009).

the organization of European statistics institutions and compile a report to be submitted upon his return<sup>210</sup>. There is no news on such memory apart from the work of agitation he developed in Chile after his arrival in February 1850. That was the reason for his dismissal eight months later. De la Barra accused Bilbao of promoting –verbally and in writing– doctrines that were “anti-social and fatal to the preservation of order,” encouraging the “dissatisfaction with their social status among the lower classes.” Such a procedure, noted the indictment, was at odds “with the decency and respect” civil servants owed to themselves.<sup>211</sup> Thus, in a short time the Statistics Office was practically dismantled. Bello, Lillo and Bilbao, in fact, had to go into exile after the defeat of the revolutionary forces. The only official who dodged the crisis was Miguel Luis Amunátegui, who left office in 1853 to assume other functions within the government.

## 2.7. Manuel Talavera, the 1854 census and the provincial statistics officials

The situation of the Statistics Office after José Miguel de la Barra’s administration was far from promising. Several historians agree. Francisco Encina claimed that at the end of de la Barra’s period the institution had returned to the same state as it was left by Urizar. Diego Barros Arana, more compassionate, attributed the slow progress to the poor health of the director, incompatible with the tasks ahead<sup>212</sup>. Beyond the individualization of the problem, any balance of this administration cannot lose sight of the aforementioned throes of the Revolution of 1851, which practically wiped out the official roster and interrupted the incipient informational circuits that the Office had managed to assemble; to this there shall be added the recurrence of administrative obstacles, as the preparation of the *Repertorio Nacional* had demonstrated, which towards the beginning of 1850s did not loosen.

The first step of the government after the recognition of the crisis was designating Manuel Talavera, until then first archivist, as interim director of the Statistics Office.<sup>213</sup> This

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<sup>210</sup> Statistics Office, Santiago, August 29, 1849, *Boletín de las leyes y de las órdenes y decretos del Gobierno* (Santiago: Imprenta de la Independencia, 1849), Book XVII, no. 8, pp. 119-120.

<sup>211</sup> The traces of the performance and fate of the first officials of the Statistics Office are in AN. MINT., vol. 122. The details of the dismissal of Lillo in ff. 160-162; of Bello and Ovalle, f. 183; for references to the case of Bilbao, dismissed in October 1850, ff. 146, 168 and 168v; also Barros Arana, *Un decenio*, vol. II, p. 367.

<sup>212</sup> Francisco Encina, *Historia de Chile. Desde la prehistoria hasta 1891*, tomo 12 (Santiago: Nascimento, 1949) p. 341 and Barros Arana, *Un decenio*, tomo II, p. 174.

<sup>213</sup> AN. MINT., Vol. 122, ff. 180 y 181. As Urizar and de la Barra, Talavera joined the Statistics Office having a vast administrative experience. Before becoming archivist, he had held the positions of Mayor Officer at the Ministry of Interior, Secondary Official of the Ministry of Finance, Secretary of State Council and Postmaster of Valparaíso. In 1845 he became a member of the Faculty of Philosophy and Humanities at the University of Chile,

change gave rise to promotions and recruitments extended until 1853.<sup>214</sup> Talavera, in fact, was confirmed in office in January of that year, when the re-composition of the Office took on a sharper tone. The first major operation this new administration had to face was the organization of a new population census scheduled for April 1854. The arrangements, however, proceeded slowly and by October 1853 the government even considered the possibility of suspending the count. Talavera was summoned to banish uncertainty informing the state of the preparations<sup>215</sup>.

Although this was not a new experience, the details of the organization of the census of 1854 were particularly demanding due to the expectations arising from the existence of a statistics institution. Without ignoring the problems, it was hoped that the operation contributed to the Office to amend the direction. At the time the distrust with respect to the figures of the previous registration was widespread; even José Miguel de la Barra, when in power, expressed the need for a better prepared and executed census than that of 1843; in that vein, he had proposed in 1850 that the Statistics Office carried out a pre-census in the Province of Santiago, a kind of methodological trial for its subsequent application throughout the country<sup>216</sup>.

But the expectations were one minor matter compared to the widespread ignorance of the internal boundaries of the national administrative division. The problem, as I showed in the previous chapter, crawled from the early Republican decades and had sharpened after the deep territorial transformations experienced by the country since the second half of the 1840s. The lack of precise boundaries, particularly of sub-delegations, districts and municipalities, was a matter of concern considering that several aspects of census planning depended on it, ranging from the distribution of forms to the appointment of the commissions in charge of raising information. However, it was not a paralyzing ignorance. As in previous and subsequent censuses, authorities and residents of each village were fundamental when it came to covering

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and acted, also on an interim basis, as director of the *Anales de la Universidad de Chile* for four years. Virgilio Figueroa, *Diccionario Histórico, Biográfico y Bibliográfico de Chile 1800-1928* (Santiago: Establecimientos Gráficos Balcells & Co. 1925-1931), vol. V, pp. 879-880; Pedro Pablo Figueroa, *Diccionario biográfico de Chile* (Santiago: Imprenta y Encuadernación Barcelona, 1897-1901), vol. III, p. 304 and Antonia Rebolledo, “Consideraciones en torno a los *Anales de la Universidad de Chile*,” in *Anales de la Universidad de Chile*, Sixth Series, no. 1, September 1995, p. 25.

<sup>214</sup> With Talavera as interim chief, the first archivist position was occupied by Francisco de Paula Rodríguez (May 18<sup>th</sup>, 1851); the secondary officer post by Manuel Blanco Cuartín and that of secondary archivist by Floridor Rojas (October 25<sup>th</sup>, 1852), who then went on to occupy the post left by Luis Miguel Amunátegui after his departure in December 1853. AN. MINT, Vol. 277, f. 61 and decrees no. 211 (October 25, 1852), no. 50 (January 29, 1853) and no. 288 (December 24<sup>th</sup>, 1853), sf. Not even Rafael Pérez, the doorman, could remain in his post, being replaced in March 1852. AN. MINT., Vol. 122, f. 184.

<sup>215</sup> AN. MINT. Vol. 277, No. 214, 22 de octubre de 1853, s.f.

<sup>216</sup> AN. MINT., Vol. 122, ff. 119 y 154-155.

the State's blind spots. Even though the territorial experience of these agents was not always aware of the recent changes in terms of political boundaries, their knowledge of the physical and human geography prevented countless errors, although they also brought some setbacks.

To that date at least two State initiatives were running to advance the knowledge about territorial limits. The first one had been commissioned to Claudio Gay, as part of his scientific expedition throughout the country. His trips took place between 1830 and 1842, and it was only in 1854 that he published the two volumes of his *Atlas de la historia física y política de Chile*, which included nine maps corresponding to the existing political and administrative units at the end of his exploration<sup>217</sup>. However, the utility of this cartography for planning the census was limited, since apart of some inaccuracies, the political division portrayed did not coincide with the one prevailing at the time of publication. Indeed, the Chile Gay explored bordered 1,000 km along the surroundings of the city of Copiapó on the north to the Biobío River in the south. That territory, similar to the borders of colonial Chile, was effectively divided into nine provinces organized on the fragmentation of the three units recognized at the beginning of the Republic.<sup>218</sup> What Gay's *Atlas* did not represent were the changes that occurred after the War of the Confederation, the beginning of the State-sponsored colonization process, and the territorial expansion into the south end. Therefore, the provinces of Valparaíso (1842), Ñuble (1848) and Arauco (1852) did not appear, neither did the Colonization Territory of Llanquihue (1853) and Magallanes (1853).<sup>219</sup> The gap within the country represented in the *Atlas* and the country to be counted in the fourth national population census was immense. Administrative units now were

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<sup>217</sup> Rafael Sagredo, "El Atlas de Gay. La representación de una nación," en Claudio Gay, *Atlas de la historia física y política de Chile*. Tomos I y II (Santiago: Cámara Chilena de la Construcción: Pontificia Universidad Católica de Chile: Biblioteca Nacional de Chile, 2010), pp. lviii-lxxiii.

<sup>218</sup> The three first provinces were Coquimbo, Santiago and Concepción and were defined in 1811. Between 1823 and 1826 that tripartite system underwent successive modifications, which resulted in five new provinces: Aconcagua, Colchagua, Maule, Valdivia and Chiloé. The ninth province, Talca, was established in 1833.

<sup>219</sup> The category "Territory of Colonization" was a transitional status applied to areas in the process of assimilation to state sovereignty. Since they were subject of intensive settlement and development policies, they required special rules and authorities. Llanquihue and Magallanes are the first of the five cases identified in the territorial history of Chile (the other three are Angol, Aysén and Antártica). In bureaucratic terms, the colonization territories were entrusted to an intendant of colonization or to a governor (usually) with military status. Even though they had the same powers assigned to any provincial intendant, they were not subordinated to the Ministry of Interior, but to a different ministry (Foreign Relations, War and Navy, etc.), the nearest intendancy or directly to the President of the Republic. The status "Territory of Colonization" was a legal anomaly. It was not defined in any legal text: neither appeared in the political constitutions nor in the internal regime acts of the period. Its administration, therefore, showed high levels of discretion, since they never conformed to a single administrative protocol and opened spaces for bureaucratic experimentation and abuses unacceptable in regular provincial contexts. In this regard, Andrés Estefane, "Territorios, burocracias y colonización interna en Chile," paper presented at the XXI Jornadas de Historia de Chile, Universidad del Biobío, Chillán, November 6, 2015.

fifteen (thirteen provinces and two colonization territories, divided into 57 departments) and the southern frontier had crossed the Bío-bío River to reach to the Magellan Strait.

The second initiative had been entrusted to French geologist Amado Pissis in 1848. Although his recruitment had broad objectives, among his tasks also figured the production of and updated cartography for knowing the provinces' territorial physiognomy. The fact that this commission was organized when another one was in progress (Gay's) is explained in part by the continuous delays of the latter, which was hampering some administrative obligations. However, nothing ensured that Pissis did not incur in similar delays and therefore the government took a series of measures to expedite his investigations and expand the impact of his expedition. In January 1851 it appointed German astronomer and mathematician Carlos Guillermo Moesta as his assistant in the preparation of the "topographical, geographical and geological map of the Republic."<sup>220</sup> Then, and to prevent that Pissis needs "50 years" for finishing his research, the government decided to give him salary of \$2,500 a year (the same salary of the director of Statistics Office), a daily traveling expense of \$ 3 for "trips, carriage of instruments and other related expenses," and to appoint "five individuals trained in mathematics" –University of Chile's students– as his assistants, thus helping them to complete their training as engineer geographers.<sup>221</sup> Like Gay's, Pissis' cartography also delayed: his expedition ended in 1865 and his maps began to be printed only in 1873<sup>222</sup>.

In perspective, the expeditions entrusted to Gay and Pissis constituted important initiatives for cartographic development and national administration. However, regarding the detailed spatial knowledge the execution of the census demanded, it is difficult to establish to

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<sup>220</sup> Moesta arrived in Chile in 1850, when he was 25 years old, holding a doctoral degree in mathematics. He immediately became acquainted with James M. Gilliss, who then headed a US astronomy mission in Santiago. After taking a position as a professor at the *Liceo de La Serena*, he was hired by the government to assist Pissis in determining latitudes and longitudes via astronomical calculations. Gilliss' expedition is a key milestone in the history of astronomy and science in Chile. The instruments and the portable observatory of the mission were acquired by the Chilean State for the organization of a National Astronomical Observatory in 1852, of which Moesta was the first director. Likewise, Gilliss produced an important geographical description of the country, accompanied by statistical notes of great interest considering the local development of the discipline. James M. Gilliss, *The U.S. Naval Astronomical Expedition to the Southern Hemisphere, During the Years 1849-'50-'51-'52* (Washington: A.O.P. Nicholson Printer, 1855), Vol. 1, Chile: Its Geography, Climate, Earthquakes, Government, Social Conditions, Mineral and Agricultural Resources, Commerce, &c., &c.

<sup>221</sup> As part of these measures, it was specified that Pissis had to produce "for every province a map reduced to 1:250.000 determining administrative divisions, situation of cities, towns, villages, mines and classifying the land"; after concluding, these particular maps would be the basis for a general map of the Republic. AN. MINT., vol. 277, documents 6 and 7, f. 39v. The expression "50 years" literally appears in the document.

<sup>222</sup> José Ignacio González, "Cartografía y república. Información territorial, soberanía y organización político-administrativa en Chile, siglo XIX," *Boletín de la Academia Chilena de la Historia* 118 (2009), pp. 65-71.

what extent their calculations had been able to replace the invaluable role played by local knowledge, an exclusive ability of citizens and priests summoned to partake in the operation. The planning and execution of the census attest the importance of these actors. Aware that the deficiencies in the civil administrative division could generate irreparable confusions, the authorities decided to organize the count according to the ecclesiastical division. Parishes were then considered the basic territorial unit for the enumeration of the inhabitants, no matter that the Statistics Office rearrange the totals later based on the civil division to thus allocate the population in their respective districts, sub-delegations and departments.<sup>223</sup> In case of the cities and towns heads of provinces and departments, the municipalities would be in charge of organizing the census commissions, forming as many commissions as parishes or sections of them there were under their jurisdiction. Considering the concentration of the population, it was hoped that in the urban radius the operation required only one day, as it was established in the decree of February 1854 that specified the arrangements.<sup>224</sup>

Registration times outside the urban limits would differ. Considering the area to be covered and the dispersion of the population, the work could be extended for up to three days. This was the time limit the parochial commissions were provided with, made up by a main commissioner and up to three subordinates. To save time and concentrate the main day (19) in the counting of the most populated areas, it was prescribed that the parish commissioner distributed forms in the most important estates so that their owners or administrators shall have

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<sup>223</sup> This delicate operation was crucial for processing results since both territorial divisions –ecclesiastic and civil– not always matched. There were parishes that embraced territories corresponding to two or more departments, if not several provinces.

<sup>224</sup> The leading role attributed to the municipalities in the organization of the census must be evaluated in connection with another event. During that same year it was discussed and finally passed the Law of Organization and Powers of Municipalities (November 8, 1854), which sought to strengthen central control over this last link of the bureaucratic machine. This was the last administrative frontier conquered by the Republican project. Although several aspects of the composition, attributions and bureaucratic subordination of these corporations had been already tackled in the Constitution of 1833 and the Interior Regime Act of 1844 –which practically turned intendants and departmental governors into central supervisors of the local management– the daily functioning of the municipalities (the protocols of their meetings or the obligation to keep a detailed record of budgetary expenses) was defined by a vague regulation. The Municipalities Act of 1854 aimed to regulate these and other aspects, reinforcing what was already learnt and opening new spaces of control, particularly with regard to the administration of assets and incomes and the monitoring of municipal expenses. It is revealing that this law, for all what it implied for the relationship between the central government and localities, seems to be a reaction of Manuel Montt’s conservative government to the revolution that tried to stop his election in early 1851 and that had in the municipalities important centers of organization. Therefore, their participation in the census needs to be evaluated as part of this policy of infrastructural penetration. Ricardo Anguita (comp.), *Leyes promulgadas en Chile. Desde 1810 hasta el 1° de junio de 1912* (Santiago: Imprenta, Litografía y Encuadernación Barcelona, 1912), vol. I, pp. 638-649; also María Angélica Illanes, “Proyecto comunal y guerra civil. 1810-1891,” in *Chile des-centrado. Formación socio-cultural republicana y transición capitalista* (Santiago: LOM Ediciones, 2003), pp. 382-384.



them completed by the date indicated. Thus, the commissioner could spend the next and subsequent day collecting these documents. Compensation defined another difference between urban and rural operations. In the former, the participation would be entirely voluntary, calling upon the patriotism of the municipal body and the main neighbors. The only exceptions were the rewards for those covering distant neighborhoods or visiting zones of difficult access. In rural areas, on the contrary, all enumerators received a compensation of \$15 a day for major commissioners, and \$8 for subordinates.<sup>225</sup>

The operation did not always fulfill the expectations of the authority. A high degree of discretion was appreciated on the part of the local officials, who implemented diverse strategies to deal with the difficulties they faced, some derived from the high mobility of inhabitants, others from the absence of rigor of the census takers, and not few from geography. One of the main problems was the inability to discern clearly the boundaries between urban and rural areas, a pressing issue for the Office, which sought to quantify for the first time this crucial political distinction. While municipalities were ordered during the preparations to determine in advance such frontier to thus facilitate subsequent calculations, the matter was not registered whatsoever and the Office had no choice but to push the intendants to elucidate it. “The task was obnoxious and heavy,” says the introduction to the census results, “both for the lack of competent and zealous men to resort to and for the very nature of our towns, without walls, always stretching, being consequently difficult if not impossible to demarcate them with the required precision.”<sup>226</sup> Indeed, “the countryside went into the villages and villages went into de countryside,” according to the expression of historian Francisca Rengifo, and the Office should had to content with determining the urban population of a few localities<sup>227</sup>.

There were also difficulties in registering the population, particularly those residing in estates and those who moved regularly because of their economic activities. The census in the Province of Valdivia illustrates these setbacks. José Antonio Astorga, the interim intendante at that time, reported that the early delivery of forms in agricultural properties had poor results, “because the owners able to fill them out did usually not live on the estates and their administrators and stewards are ignorant people that do not even know how to read.” This

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<sup>225</sup> *Censo Jeneral de la República de Chile levantado en abril de 1854* (Santiago: Imprenta del Ferrocarril, 1858), “Introducción,” pp. 1-2.

<sup>226</sup> *Ibid.*, p. 6.

<sup>227</sup> Serrano, Ponce de León y Rengifo, *op. cit.*, p. 114.

situation, also found in other provinces, forced the commissioners to conduct personal interviews in subsequent days. The calendar of economic activities also impacted on the enumeration. The day of the census had been determined after the impression that April was the month in which the inhabitants of the Republic “remained settled,” except for the first two weeks, which coincided with the last two weeks of *Cuaresma* [Lent] a coincidence that could affect the work of the commissioners. On the other hand, the day dovetailed with the breaks of agricultural tasks, but not with the routines of other occupations. Valdivia again offers a good example. The male population of the zone, “mostly occupied, day and night, in the navigation of the rivers and their several channels transporting wood, the night before and the very day of the enumeration were not in their domiciles nor somewhere else; not few of them during the summer season go into the forests for cutting wood, and by April the majority had not returned to their homes.” His impression was that at least one eighth of the provincial population had been left out of the census<sup>228</sup>.

Other problematic fronts were the colonization territories and the gathering of qualitative information. The Magellan Colony was not part of the operation and the figures taken for the final calculation were provided unilaterally by the governor. The Mapuche population was not considered either, not even by estimated, as it had happened in the census of 1843 in Valdivia, when the totals were calculated adding an “imaginary number of *indios* from rebel tribes.” Now only the “civilized population and half-civilized Indians [*indios a medio civilizar*]” had been counted. In addition, several intendants advised to be careful with the information regarding age, profession, and trades of citizens, the most difficult data to corroborate. Age records escaped from the fantasy of precision, especially in the case of oldest citizens, which tended to be registered according to their physical aspect or by their own calculations based on the memories of historical events. In reviewing the forms, the Office decided to isolate all cases of citizens with more than one hundred years and approach the intendants for verification. Many cases of inaccuracy were identified. This measure of corroboration was not replicated regarding occupations or trades, which also were among the data that generated great distrust. “Many persons dependent on a family, which only take care of domestic tasks,” the Intendant of Chiloé informed the Minister of Interior, “have not wanted to appear without an ordinary occupation, and consequently they have chosen undoubtedly the one that is more in harmony with their

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<sup>228</sup> AN. MINT., Vol. 328, Intendancy of Valdivia, August 7, 1854, ff. 99-103.

desires and circumstances, not being that the one that, with exclusion of any other one, provides their means of subsistence.” The phenomenon was also recorded from gender bias that the same numbers helped to reinforce. That was the case of the alleged over-representation of trades such as seamstress, laundress and the like, whose total, surpassing the country’s needs, was believed to express the intent of covering up occupations that could hurt “delicacy or pride.”<sup>229</sup>

Despite these errors and omissions, the census was carried out in a controlled and expeditious way. While there were provinces that showed greater speed in data submission – Chiloé and Talca stand out– there were no exceptions to compliance. After six months the Office had received the reports of all the administrative units.<sup>230</sup> This relative success can be explained thanks to the parish commissions, which were rarely adjusted to the composition prescribed by the authority and therefore better able to cover the territories assigned. The variability was high and usually depended on the nature of the challenges encountered, but also on the courage of authorities. In the Intendancy of Colchagua, for example, apart from the municipal bodies, 136 people were recruited, 21 as principal commissioners (one per parish) and 115 as subordinates. The total of subordinates nearly doubled the total of three assistants per parish allowed by the central authority. A similar situation occurred in the Province of Arauco, which included five parishes. The province should have recruited five principal commissioners and 15 subordinates, spending \$585 in compensations. However, as most of the territorial officials were illiterate and all what they could offer was their thorough knowledge of the space, it was necessary to hire more subordinates officials, literate and regardless their familiarity with the territory. In this scenario, the Intendant asked the Ministry of Interior a rising of \$700 in total allocated to cover these extraordinary compensations. The Intendant of Talca pursued a different strategy. His bet was to expedite the registration and execution in one day, dividing the total budget in compensations equivalent to one day of work instead of three or five as it was established by law. The Governor of Linares, in the Province of Maule, implemented a similar measure. He divided the sub-delegations in three or four sections and appointed special commissioners for each one. Thus, the concentration of work in one day allowed recruiting more enumerators

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<sup>229</sup> The information about Magallanes in *Censo Jeneral de 1854*, p. 3; of Valdivia, AN, MINT, vol. 328, f. 100; on age records, *Censo Jeneral de 1854*, p. 2 and 5; on occupations and trades, AN, MINT, Vol. 122, f. 187v and *Censo Jeneral de 1854*, p. 3. Several episodes of this and other enumerations confirm that the representation of female labor was a recurring problem for census planners. On this topic, Elizabeth Quay Hutchison, “La historia detrás de las cifras: la evolución del censo chileno y la representación del trabajo femenino, 1895-1930,” *Historia* 33 (2000): 417-434.

<sup>230</sup> For the dates of dispatch of provincial reports, AN, MINT, Vol. 122, f. 230.

without overloading the budget. The Governor of Constitución, in the same province, took the obstacles more seriously and named four principal commissioners for its territory, in conditions that he only could appoint one given that the jurisdiction had just one parish. Baffled by the improper measure, the Intendant decided to put the case in the hands of the ministerial authority<sup>231</sup>.

The complexity of the census as a bureaucratic operation also entailed changes for the Statistics Office. In October 1854, Talavera achieved that the Ministry of Interior approved the recruitment of 12 auxiliaries that would strengthen the administrative staff while preparing the summaries of the census. On the payroll of assistants were key names for local statistical history, like Wencesalo Vial<sup>232</sup>. Another relevant figure was Marco Antonio Gundian, who in mid-1855 became an official of the Office in the post of first archivist.<sup>233</sup> Santiago Lindsay joined days after the end of the count. He did so in the quality of first official, fulfilling an important role processing data and preparing national summaries<sup>234</sup>. In general terms, the contingent of officials and auxiliaries of the census in 1854 was technically better prepared than that of the previous ones. It featured several students of the University of Chile and also young bureaucrats with experience in State administration. The final report was ready for printing in the middle of 1856, but its publication was delayed until 1858 due to an obstacle that would mark another practical frontier for the Statistics Office: the absence of inputs in the printing presses for designing the summary tables, principally due to the scarce range of mobile types. Unintentionally, the publication of official statistics challenged significantly the local publishing industry<sup>235</sup>.

The population census of 1854 registered a total of 1,439,120 inhabitants, verifying an increase of 355,319 persons with regard to the enumeration of 1843. Beyond difficulties and setbacks, the experience turned out to be satisfactory, since reliable demographic figures were obtained and some unknown facts, like the rates of literacy, were for the first time quantified.<sup>236</sup>

The administration of Talavera also came out stronger, which was crucial for the implementation of an important reform regarding the procedures on which the Office depended for collecting information at local level. This reform concerned the creation of the position of

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<sup>231</sup> AN, MINT, Vol. 122: Colchagua, ff. 213-215v; Arauco, ff. 211-211v; Talca, f. 191; Maule, ff. 256-258.

<sup>232</sup> AN, MINEDU, Vol. 29, ff. 112-112v. See "Introduction," footnote 21.

<sup>233</sup> The list of assistants in AN. MINT., Vol. 122, f. 209. Gundian replaced Joaquín Álvarez de Toledo, who became secondary official following the resignation of Manuel Blanco Cuartín due to health problems.

<sup>234</sup> AN, DGE, Vol. 7, 1 de mayo de 1854, f. 44.

<sup>235</sup> AN, MINT, Vol. 122, August 30, 1856 and April 30, 1858, ff. 375 y 415v-416, respectively.

<sup>236</sup> Ponce de Leon, Rengifo and San Martín, *op. cit.*, analyze the 1854 census from this perspective.

provincial statistics official in October 1855. This official was responsible for overseeing data gathering procedures in the minor administrative units, compiling information regarding the entire province, and sending it periodically to Santiago to the headquarters of the Statistics Office.<sup>237</sup> The presence of this new official, located in the secretariat of each intendancy, not only opened new communication channels between the provincial administration and the central authority, but also reinforced the dependence between both. At local level, he was going to play a similar role. As his main daily interlocutors would be governors, sub-delegates, inspectors and local chiefs of services, this official could help to strengthen the links between the basic units of organization. In many ways, this was an innovation. Rather than repeating the strategies followed until then –which understood the gathering of statistical data as a sporadic activity, alien both to bureaucratic routines and provincial interests– the reform situated this practice as an inescapable function for governorates and intendancies, turning it into a fundamental administrative duty. Unlike de la Barra, Talavera did not seem interested in the question of what kind of statistics had to be produced, whether by branch or by territorial unit, but rather in the need to set up a basic bureaucratic infrastructure that facilitate the flow of information both within the provinces and between them and the central government.

The definition of the functions to be covered by this position was defined in February 1856, when the Ministry of Interior sent a circular letter to the intendancies with a detailed research plan.<sup>238</sup> Rather than regulating the statistical research, the plan asked officials to recognize first their territories, since this was an essential step for defining the information generating procedures. Each official would manage one or more logbooks of the different statistical data that would serve this purpose. One of the aspects the authority was most interested in was to determine the internal borders of the administrative map, a task whose postponement was affecting the exercise of power and could have a detrimental impact on statistical research. In order to comply with this, officials had to gather all the documentation filed in their offices and other services, follow any trace and even attend to the testimony of neighbors. Antonio Varas, Minister of Interior, was emphatic on this, warning that vague or imprecise demarcations

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<sup>237</sup> The creation of this post did not derive from a particular law, but was a by-product of the Increase of Intendants Salaries Act, October 3, 1855, Anguita, *op. cit.*, vol. II, p. 18. As with previous administrative reforms, salaries varied according to the territorial location of the functionaries. While the statistics official of Atacama would receive annually \$ 1,200, those of Coquimbo, Valparaíso and Santiago would get only \$ 1,000, and the rest \$ 800. The same disparities are reproduced in the allocation of office expenses.

<sup>238</sup> AN. MINT., vol. 371, ff. 18-24; also *El Araucano*, Santiago, February 19, 1856. The designations had recently been made official by a decree of November 20, 1855. AN. MINT., Vol. 371, f. 11.

would not be accepted: each edge should be determined with maximum rigor, identifying those “natural objects [...] or the precise direction of the imaginary lines” that defined them.

The determination of the civil administrative division could not be detached from the ecclesiastical division, especially from parishes, the basic territorial unit for the collection of demographic information. Hoping to count on the support of the parish priests and other ecclesiastical dignities, statistics officials were also asked to pay particular attention to the overlaps between the religious divisions and the limits of provinces and departments, since that information was the only reference that would later enable the reallocation of the totals. These precisions were relevant because several parishes included territories corresponding to two or more departments, if not to different provinces. Along with this jurisdictional contrast, the research plan also ordered the drafting of reports on the number of officials serving in public institutions and the endowments of their offices; compiling the plans of the buildings belonging to the State; and the enumeration of uncultivated lands and of the establishments dedicated to charity. A similar exercise should be conducted with the representatives of the clergy, indicating their number, territorial dispersion as well as the location and type of construction of churches and shrines.

As a way to reverse the absence of common criteria for carrying out these investigations, the government ordered the remittance of several copies of one of the most influential statistical manuals of the mid-19th century, *Eléments de Statistique* (1847) by Alexandre Moreau de Jonnés, former director of the General Statistics Office of France. One of the first Spanish translations appeared in Lima in 1854, commissioned by the Peruvian government to Political Economy Professor Eugenio Sosa. Months before its launching, the Ministry of Public Instruction of Peru had decreed its use as leading text for the teaching of “general notions” of this science in all national schools.<sup>239</sup> In Chile, Manuel Antonio Matta, the future leader of the Radical Party, proposed a similar measure in a thoroughly review of the work of Moreau de Jonnés published in the *Revista de Santiago* in 1855. Thinking that one of the big disadvantages over which the managers of the administrative sciences were stumbling was the “lack of statistical knowledge” and that the education on the discipline did not require big reforms nor charges (it was enough to integrate it a section to the courses on Political Economy), this book

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<sup>239</sup> *Elementos de Estadística. Escritos en francés por Alejandro Moreau de Jonnés, traducidos libremente al castellano por Eugenio C. Sosa* (Lima: Impreso por José D. Huerta, 1854). A second French edition appeared in 1856, being translated into Spain the following year by Ignacio Andrés and Casimiro Pío Garbayo de Bofarull.

could serve as a “doctrinal text,” according to Matta, both for the students of the National Institute and State employees<sup>240</sup>. The proposal received favorable reception in administrative circles. In April 1856 the Ministry of Interior announced the reception of 22 copies of Sosa’s translation, which were subsequently sent to all the intendancies and the main libraries of the country. The order was that all officials in charge of the collection of statistical information knew and adjusted their performances to the latest reflections on statistics.<sup>241</sup>

Even though these measures seemed to cover the main obstacles detected, soon another limitation emerged: provincial statistics agents were not authorized to leave the head cities in which they resided to supervise *in situ* the inquiries, especially in sub-delegations and districts, usually entrusted to citizens with little instruction and only slightly familiar with works of this nature. Apparently, the rationality of the Legislative tended to overstate the ties of bureaucratic subordination and the response capacity of the State’s administrative cadres, or at least did not foresee the difficulties of reaching the information sources nor the geographic challenges associated with data gathering procedures. That was the reason why several provincial agents started to send requests to the Ministry of Interior between 1856 and 1857 to visit their jurisdictions. In July 1856, Guillermo Döll, Secretary of the Intendancy of Valdivia, requested authorization to leave the provincial capital during the summer of 1856 to comply with the instructions received from Santiago: “In order [...] to get to know the resources and natural wealth of the territory, see the needs of the localities and indicate the measures conducive to the progress of agriculture and industry, in a word, to be able to do a faithful portrait of the province, it is indispensable that I travel during certain seasons to see everything and recognize it personally. I believe to be excused to demonstrate this need since you know the difficulties that here appear for any inquiry, and how unreliable may be the news collected by persons who do not have any interest to gather them and lack sometimes the capacity necessary to do so.”<sup>242</sup>

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<sup>240</sup> Manuel Antonio Matta, “Elementos de Estadística. Obra escrita en francés por A. Moreau de Jonnés,” *Revista de Santiago*, tomo primero, mayo de 1855, pp. 228-236.

<sup>241</sup> For more details on the circulation of this text among intendancies, AN. MINT., vol. 122, ff. 344-356.

<sup>242</sup> Döll’s request was even more ambitious. Along with the statistical works demanded from Santiago, he sought to produce a new topographic map in order to facilitate both the administrative daily tasks as well as the measurement of the rustic farms in the province. To this end, he asked a stipend and access to scientific instruments belonging to the Cadastral Commission and the Engineering Corps. AN. MINT., Vol. 122, ff. 371-372. As engineer, Guillermo Döll was an experienced land explorer. In 1846, the year he arrived in Chile, he took the post of professor at the *Liceo de Valdivia* where he met naturalist Rodolfo Philippi. Together conducted several expeditions into different provinces, like the famous one into the Atacama Desert in 1854. Rodolfo Philippi, *Viaje al desierto de Atacama*

Although Montt's government was initially inclined to authorize the itinerancy of the statistics secretaries, the motion lost force dramatically in the middle of the following year at the prospect that the generalization of the practice could mean a charge that the Treasury could not sustain.<sup>243</sup> From Santiago it was stressed that the intendants appealed to the zeal of their subordinates as the main mean to comply with their duties. In January 1857, almost a year after the first circular letter, the Ministry of Interior had to reiterate to the provinces the urgency of submitting administrative, a crucial step not only to regulate the system, but also to prepare the forms and draft the guidelines the government had promised<sup>244</sup>. However, excuses from the provinces just accumulated, accusing the inability to adjust the local bureaucratic machine to the demands of the central authority. Everything indicated that the presence of the statistics official had installed bureaucratic pressures structurally impossible to absorb by the smaller units. The situation of the governors, for instance, had become precarious, because the demands of information from the provincial capitals had to be handled with the usual bureaucratic contingent, and that was aggravated because of the multiplication of the correspondence that should be maintained with sub-delegates, inspectors and service chiefs to put into motion regular information channels. In response to this, for example, the governor of Freirina (Province of Atacama), proposed to add to the position of provincial statistics official an equivalent at the departmental level, which would facilitate communication with subordinates and shorten the times for sending data. Just as complex was the position of those who served the government without receiving compensation, such as postmasters, who now had to attend to this new task at the expense of the time devoted to their own businesses. It is revealing that in relation to these discussions some warnings started to circulate on the possibility that several of these informal State bureaucrats would resign their posts in response to the growing (and uncompensated) demands of information from the government<sup>245</sup>.

The administrative knots that obstructed the implementation of this research plan resided at every level. Even though the provincial officials were seen as the vanguard of this State onslaught, their presence was not guaranteeing the establishment of information channels. In the

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(Santiago: Cámara Chilena de la Construcción: Pontificia Universidad Católica de Chile: Biblioteca Nacional de Chile, 2009 [1854]).

<sup>243</sup> Indeed, Döll's exploration was approved on July 31, 1856, a few days after the receipt of his request. The official of the Atacama Province submitted a similar request in February 1857, but it was finally rejected. Toward May of the year practically there was no room for this type of initiatives. AN. MINT., Vol. 371, ff. 36, 46 y 52.

<sup>244</sup> AN. MINT., Vol. 371, f. 44.

<sup>245</sup> AN. MINT., Vol. 122, ff. 395-397.



Intendancy of Valparaíso, for example, the provincial official had assumed his post in January 1856, but left in April after being promoted to another destination. Since then, and until December of that year, the post remained vacant and the statistical investigations remained paralyzed. The Intendant of Concepción was even skeptical of the connection between the action of the officials and the expectations of the Statistics Office, an issue that would not be resolved by means of the study of Moreau de Jonnès' manual. "The supreme decrees issued so far are too general and do not give a precise and detailed rule," he warned by judging the preparation of officials, so the recommendation was to optimize the communication with the provincial agents. The situation of intendants and governors was not auspicious either, partly because none had the specific tools to put the machinery into motion. Not even sub-delegates and inspectors, essential agents in the basic units of territorial organization and those on who depended the functioning of the system, could do so. Predictably, all the limitations of the administrative scaffolding were attributed to these latter. They were blamed for the lags and carelessness the Statistics Office and the Ministry of Interior did not stop to condemn. "Lack of habit," "incompetence" and "ignorance" were the words that appeared repeatedly in these bitter allegations, in which even other State services got entangled too. On more than one occasion the intendants of Atacama, Coquimbo and Chiloé noted that the restrictions on the routes of the postal service hindered the interaction between the authorities, making fluid communication almost impossible. What is revealing is that even when the contact was periodic, the situation did not change: trusting on the regularity of communications, minor officials did not hesitate to ask for clarifications or more detailed instructions to achieve their tasks, initiating extensive epistolary exchanges that ended up increasing the confusion and delaying the inquiries.<sup>246</sup>

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<sup>246</sup> For a general approach to these problems, AN. MINT., Vol. 122, ff. 382-389v y 398-399v; and vol. 371, f. 114. As statistics, the postal service faced its own institutionalization process in the 1850s. In 1852 a law unified the existing legislation, ordered the service, and introduced the use of stamps. In the middle of 1854 the post of General Director of the Post Office was created, with an annual salary of \$3,000 and an extra pay to finance regular visits the offices located outside Santiago. The following year the provincial postmasters were established, assuming responsibilities akin to that of the provincial statistics officials. In 1858 the General Ordinance (*Ordenanza General*) place the institution under the tutelage of the Ministry of Interior, merged the postal and telegraphic services, and decreed the State monopoly on both. *Correos, porte de las cartas y de los impresos*, October 20, 1852, Anguita, *op. cit.*, vol. I, pp. 604-605; *Administradores de correos*, October 5, 1855, and *Ordenanza General de Correos*, February 22, 1858, Anguita, *op. cit.*, vol. II, pp. 18-19 y 56-73. Also Germán Urzúa Valenzuela, *Evolución de la administración pública chilena (1818-1968)* (Santiago: Editorial Jurídica de Chile, 1970), pp. 85-86; Carmen Ochagavía, "Historia del servicio de correos de Chile entre 1852-1898: modernización y expansión en las memorias de los directores generales de correos," B. A. Thesis in History, Pontificia Universidad Católica de Chile (Santiago: 2000) and *Correos Chile, 260 años del correo en Chile. 1747-2007* (Santiago: Correos Chile, 2007).

## 2.8. The “pontoon of useless and invalid employees”

Despite the difficulties just described, the administration of Manuel Talavera contributed importantly to the institutionalization of statistical works. His administration had been able to organize a population census which set out complex goals and had a satisfactory territorial scope, which certainly boosted some institutional confidence; also, the establishment of the provincial statistics official network, beyond the setbacks it generated, had installed the statistical concerns in the bureaucratic routines of the administrative chain. Obstacles persisted –information arteries operated discretionary; local officials remained somehow distanced from the requirements of the science; the publication of a “national repertoire” was still pending– but the institution seemed to be in a better position than at the beginning of the 1850s. This improvement was expressed eloquently in different episodes that took place in 1858. The more significant was the death of Manuel Talavera, whose health had shown severe signs of deterioration in the previous months. Santiago Lindsay, who had joined the institution in 1854 as a first official, promptly occupied his post. This speedy substitution can be explained by the fact that Lindsay was already operating as temporary director due to repeated absences of Talavera (mainly due to his health problems, but also because he served in parallel as Intendant of Santiago). It was in the midst of this transition that the Statistics Office presented the printed version of the census in 1854, an act headed by Lindsay now as director of the institution.

If the death of Talavera seemed not to alter excessively the pace of the Office, it did cause a stir in the National Congress, where a project to grant a pension and scholarships to the members of his family was intensely discussed. What was at stake were fundamental issues, like the rigorousness of the criterion with which pensions to public servants and their relatives were granted, but this did not prevent the debate from culminating in a thankless assessment of Talavera’s bureaucratic career. Perceptions of his performance as head of the Statistics Office were certainly part of that balance. This debate is interesting not because what it says about Talavera, but because it reveals the opinions on the Office’s functioning after 15 years in operations. As it happened in the 1840s, much of what was stated reflected an extremely critical vision on the trajectory of an institution crucial for the production of State knowledge, a critique that was expression of certain institutional idealism and also of ignorance of the details of the statistical work and the practical limits that were obstructing its development.

The one who proved to be most hostile enemy of the idea of granting a pension, acidly criticizing Talavera's performance in leading the Office, was deputy José Tomás Gallo, member of an influential family linked to the mining industry of Copiapó and a vital actor in the vanguard of revolutionary explosion of 1859.<sup>247</sup> The fierce opposition of his family to the government of Manuel Montt explains part of the animosity. However, Gallo's interventions touched critical aspects of the functioning of the Office, some of them undeniable even for its advocates. It is certain that his opinion was inaccurate in the calculation of the longevity of the service or Talavera's administration, but more than being precise the point was to prove the sterility of the Office and, by extension, his management mistakes. He started by putting into question the alleged contribution of the institution to the country, although later had to qualify such assertion recognizing in the 1854 census a sign of progress. But even that "minimal" success could not be attributed to the former chief: "We know that Mr. Talavera has been intendante for a year and a half and suffered a long illness later; therefore I believe that his work could not have influenced significantly in the last outputs of the Statistics Office." Gallo returned again and again to the argument of the lack of productivity and in several passages remembered that the report of the 1854 census was still unpublished –by the same days Lindsay would report that it was ready– and the only publication known to that date was the 1845 statistical report of the Province of Maule. Altogether, Gallo's interventions left the impression that nothing had been done before 1854, and later very little.

Nobody noticed that this judgment was imprecise, because in 1850 the Statistics Office had published another work, the *Repertorio Nacional* –certainly the omission could also be seen as a symptom of other questions, like the irrelevance of the writing or its limited circulation. The one who indeed reminded Gallo of something was the secretary of the Chamber of Deputies, Francisco Puelma, asserting: "Deputy [Gallo] has said that Talavera's performance in Statistics Office and in his previous employments were regular [...], and I remember that in a previous session added that these services [the statistical ones] were more than rewarded with the salary he had received as head of a fruitless institution, that everybody considered pontoon of useless

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<sup>247</sup> This provincial revolution was similar in inspiration and objectives to the one of 1851, although it was more radical in its development. See Joaquín Fernández Abara, "De la colaboración con el Estado a la protesta regionalista: la Junta de Minería de Copiapó desde las Reformas Borbónicas hasta la Guerra Civil de 1859," *Revista de Historia y Geografía* 31 (2014): 19-46, "Guerra, militarización y caudillismo en el norte chileno: el caso de Copiapó en la Guerra Civil de 1859," *Economía y Política* 2 (2) (2015): 41-75; and *Regionalismo, liberalismo y rebelión. Copiapó en la Guerra Civil de 1859* (Santiago: RIL Editores, 2016).

and invalid personnel.” The fact that Gallo had referred in those terms to the Office and that Puelma had taken note of it responds to a not entirely inappropriate impression. The internal documents of the Statistics Office, at least from the administration of José Miguel de la Barra on, indicate that the institution had high rates of absenteeism due to repeated medical leaves. The leaves could last for months and in some occasions were asked by more than two officials at the same time.<sup>248</sup> Likewise, the last two directors –de la Barra and Talavera– suffered their agonies while supervising the institution. Albeit Gallo’s assertion could be understood as an outburst, as an ungrateful exaggeration, these facts do not disparage at all the chosen metaphor.<sup>249</sup>

There is no doubt that the absenteeism of the officials and the illness of the directors affected the development of statistical works, as it did it another fact that Puelma mentioned positively, to praise Talavera, but which also could be read as a questioning of the importance of the place the Statistics Office had in the bureaucratic career of Talavera. Replying to Gallo, Puelma said: “you, Sr., maybe ignore that at the same time that Talavera served to statistics, he worked either as official of the Ministries of Interior, of Justice and Finance, as secretary of the Council of the State, or as a postmaster in Valparaíso, always in difficult circumstances, or in contexts in which his action and experience were necessary.” Although such versatility was not unusual among nineteenth century public men –it should be added that Puelma did not mention Talavera’s terms as Intendant of Santiago and Director of the Hospice– that must have been burdensome for someone running a highly demanded department whose institutional strengthening was permanently into question. Although the Statistics Office did not require exclusivity, nor did similar institutions in a context in which there still were no criteria of

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<sup>248</sup> One of the first serious cases of absenteeism by illness was that of the official Juan Bello. His first medical leave was submitted in December 1849, for a month and a half, and it was extended in February 1850 for 60 more days. He submitted a new one in September of that year, this time for six months, but the government only granted four; on the verge of the expiration date, asked for an extension, this time for three months. His dismissal was approved in October 1851. By mid-1855, during the processing of the results of the census of the previous year, officials Manuel Blanco and Floridor Rojas began to absent for health reasons, though both returned to work toward November. In January 1856, official Joaquín Toledo requested a leave of absence for 45 days to recover from a serious illness. In parallel Manuel Blanco’s health deteriorated again due to a chronic heart and liver disease whose nuisances worsened with the high temperatures of the summer season. He was granted a two months leave. Days later Floridor Rojas requested a new leave of absence, so for several days the Office functioned with half of the staff, at least until Toledo returned to his post at the end of that month. Finally, due to the deterioration of his health, Manuel Blanco resigned as secondary official in June 1856; in September 1857 he was followed by Floridor Rojas, probably for the same reasons. Toledo requested a new medical leave in January 1858, getting a month and half. AN. MINT., Vol. 122, ff. 147-148, 152-153, 167-167v, 176-177, 183, 315, 319-321, 325-328v, 339, 401-401v, 406-408.

<sup>249</sup> It should be noted that absenteeism by medical leave was not an exclusive phenomenon of the Statistics Office, but a generalized problem within the State administration.

incompatibility for the exercise of public posts, it certainly needed higher levels of attention given the lack of incentives for the naturalization of the statistical work.

Different in terms of tone were the interventions of Jerónimo Urmeneta, Minister of Interior and deputy for Santiago, and Antonio Varas, deputy for Talca and former minister of the same secretariat. For being or having been direct superiors of the Office, both knew in detail the eventful its internal history, especially Varas, who in his first period as Ministry of Interior (1850-1856) led the reorganization of 1851, promoted Talavera to the leadership, and supervised both the application of the 1854 census and the reforms this administration implemented. Urmeneta and Varas agreed on a point reaffirmed by the impressions of José Tomás Gallo. Both believed that the first years of the institution had been of little progress, and that only after the changes that occurred with the arrival of Talavera the situation improved. In that sense, they recognized that the critiques by Gallo were pertinent regarding the period 1843-1851, but not later. Varas intervened as an authorized voice on the matter to clarifying this point: “Due to my fist-hand knowledge of the trajectory of the Statistics Office, I can properly judge its services, and can make sure that what has been said on the inaction of the personnel is completely wrong. If the Office did not produce most important outputs, it was due to a defective organization and the narrowness of its staff; but since Mr. Talavera took over, it entered into the pace it now follows. Talavera was effective in ordering its strenuous work and collected data that one only can get working hard and focused.”

But the most evocative aspect of Varas’ intervention was not his defense of the questioned leadership of Talavera, but the words that he dedicated to illustrating the methodological difficulties associated with the production of official statistics. His first-hand experience allowed him to develop a reflection that recognized the complex work of knowledge transfer and abstraction that came with the processing of forms sent from the various provinces. Referring to the drafting of the 1854 census, he said: “[t]he year had ran fast and of the multitude of bundles that came to the Office it was finally possible to arrive to a general result with assistance of some personnel; this work appears in a paper sheet, but forming it entails efforts and laboriousness not evident when seeing the output. The multitude of calculations and all the preparation that is required do not appear in those sheets [...]. I will not stop repeating this idea: although Talavera’s work was initially not like those that were published later and which the

Statistics Office has recently approved, one cannot lose sight of the fact that these works require an attention that is not evident when looking at a sheet of paper.”<sup>250</sup>

This debate shows to what extent the Statistics Office, fifteen years after its creation, continued generating critiques in different instances of the State administration. Although they partly reflected the political tensions of the 1850s, marked by two bloody civil wars, its main source was the ignorance of the bureaucratic complexities surrounding these works. In the middle of the discussion of the national budget for 1858, the case of statistics was quoted as an example of an unsuccessful project, which gave birth to an institution that was not fulfilling its goals.<sup>251</sup> In terms of public opinion, the Office seemed to be in debt. Beyond the statements on the importance of this service for government, the persistence of numerous conceptual barriers impeded a proper understanding of what was involved in mounting an institution that needed a network of communication channels of national scope.

To those barriers Antonio Varas made reference to when explaining the sophistication of the analytical steps required for processing statistical data; to the same pointed out the numerous reports sent by intendants, governors, and sub-delegates regarding the difficulties for adjusting the provincial administrative structure to the increasing informational demands of the central power. All these testimonies demonstrated that the problems faced by the Statistics Office in this first stage of institutionalization were certainly linked to the performance of its staff, but mostly to the provincial administration and the slowness with which local bureaucracies were absorbing the protocols of production of official numbers. This was a critical knot in the State-formation process in mid-nineteenth century Chile. The bureaucratic details of the organization of the Statistics Office account for the innumerable barriers this service had to face both to establish a predictable informational network of wide territorial coverage and to advance toward the configuration of a State monopoly over socially relevant information.

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<sup>250</sup> All these interventions come from SCN, Chamber of Deputies, sessions 24, 30 and 33 (ordinary), July 31 and August 14 and 21, 1858, pp. 169-170, 236-239 y 261.

<sup>251</sup> This was the opinion of Ángel Custodio Gallo (brother of José Tomás), a key figure in the 1859 revolutionary uprising. SCN, Chamber of Deputies, session 8 (extraordinary), November 18, 1858, p. 432.

## Chapter 3

### **The Configuration of an Informational Monopoly. Institutional Conflicts and Territorial Challenges in the Consolidation of the Statistics Office (1858-1876)**

The 1850s ended with an unfavorable opinion climate for the Statistics Office. Its critics insisted on the inability of the institution to achieve its final takeoff, trapped by endless operational difficulties that rendered the projects of the first administrations unproductive. Yet that was an extremely severe judgment, as the balance was not absolutely negative. So far the institution had managed to consolidate a bureaucratic body relatively appropriate for its research goals, counted on a fixed budget, and advanced, not without limitations, toward a greater territorial presence thanks to the designation of the provincial statistics officials. Likewise, it had been able to organize two population censuses, in 1843 and 1854; and the latter showed substantial progress in terms of coverage and homogeneity, making possible to measure for the first time the rates of national literacy. However, in the eyes of the critics those achievements seemed insufficient when compared to the size and effects of the pending organizational problems. All this incubated certain hopelessness about the future of the institution.

That was the climate in which Santiago Lindsay came to lead the Statistics Office. It is no exaggeration to affirm that his administration marked a turning point in the history of the institution. During the eighteen years in which he acted as chief director (1858-1876), Lindsay implemented a series of reforms that eventually turned out crucial to erode the doubts on the fate of the national statistical project. After elaborating a complete diagnosis of the limitations faced by the previous administrations (Urizar, De la Barra and Talavera), Lindsay put into motion an ambitious action plan oriented to reinforce the territorial presence of the Office, improve its position within the bureaucratic grid, and advance toward the generation of a periodic

publication that, along with publicizing the ongoing investigations, served to place Chilean statistics into the international networks of knowledge production. Due to these transformations, the Statistics Office began to overcome several of the difficulties that had prevented its action, and although this did not mean the complete disappearance of such setbacks (the new achievements brought about problems of different nature), the institution entered into a clear stage of consolidation.

During these years the Chilean State took critical steps toward the forging of its monopoly over the production of statistical figures. As outlined in the previous chapters, one of the main challenges the authority faced was the accumulation of enough legitimacy as to demand an exclusive control of this type of information. This entailed not only to enlarge its bureaucratic arms, but also to compete with institutions and actors, such as the Catholic Church or the business associations, that for historical reasons were better positioned to perform these tasks. Lindsay's administration was a key phase in the resolution of those disputes, since the measures he adopted aimed precisely at developing a ubiquitous and predictable statistical bureaucracy, able to replace any alternative actor. If this period is characterized by anything, it is by the sustained development of the Statistics Office capacity to appropriate informational capital.

This process took place along with an accelerated transformation of State institutions. Albeit the 1851 and 1859 civil wars did not result in the military defeat of the Conservative forces, they certainly undermined their hegemony. This marked the beginning of a gradual transition of Liberal inspiration, which paved the way for the diversification of the political scene and for the consolidation of the National Congress as a counterweight to the power of the Executive. From the 1860s onward the party system grew more complex, showing increasing levels of competition in the dispute over parliamentary posts. As a result, the Conservatives forces started to lose ground. During the 1870s several constitutional reforms were approved, some of them with huge electoral implications, and they neutralized the Executive intervention capacity in favor of an increasingly better positioned Congress. Due to the importance of demographic data for building up the list of citizens qualified to vote, official statistics became a matter of intense disputes and that put the Office under permanent public scrutiny. These were also the years in which the economy experienced a rapid modernization. Exports gained strong momentum; a sophisticated financial system emerged; and transport infrastructure and



communications showed clear signs of development.<sup>252</sup> Statistics, due to its close links with commercial activities and the overall measurement of the state of the economy, was a key piece in this modernization process, offering its instruments for assessing “progress.”

This chapter covers the period 1858-1876 analyzing the bureaucratic consolidation of the Statistics Office. It is divided into four sections. The first one offers a biographical sketch of Santiago Lindsay, tracing his trajectory as civil employee and his similitudes with political and intellectual figures that played a similar role in the development of statistics in the Spanish-speaking world. That sketch is followed by the revision of his reform agenda in relation to the administrations of his predecessors. The second section focuses on the *Anuario Estadístico de la República de Chile* (Statistical Yearbook of the Republic of Chile), the major editorial project of the Statistics Office published regularly from 1860 onward. This text became one of the main instruments for the internationalization of Chilean statistics during this period. What is interesting about this publication is that, along with being used as platform of diffusion of local statistics, Lindsay employed it as a bureaucratic trench from which he pressed upper level authorities to approve the set of reforms he started to promote from the beginning of his administration.

The third section explores the diverse conflicts that marked this crucial stage in the forging of the informational monopoly of the State. The first theme are the provincial dynamics of statistical production and the difficulties to discipline local bureaucracies according to the principles of predictability and homogenization that inspired Lindsay’s reforms. The 1865 and 1875 population censuses are the theme of another subsection. These enumerations shed light on two sets of problems: firstly, the obstacles to retrieve data from the field, which partly derived from the low level of training of the local commissions entrusted with this task; second, the contested nature of these activities, due to their relevance for the definition of the quotas of political representation. Similar complexities were raised by the production of sectorial statistics, dependent on specialized knowledge and expertise that went beyond the degree of training of civil servants. On this point two cases are reviewed: the first one is the Commercial Statistics Office of Valparaíso Customs House –where a delicate case of data falsification took place in

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<sup>252</sup> Luis Ortega, *Chile en ruta al capitalismo. Cambio, euforia y depresión, 1850-1880* (Santiago: LOM Ediciones: DIBAM, 2005).

1868— and the second one refers to the production of agricultural statistics, in which producers and landowners formed a front of resistance to official statistics.

The conflicts between the State and the Catholic Church are of particular interest to understand the logics of resistance at institutional level. The increasing State pressures on the parish priests to put them at the service of the civil network of public servants were the origin of bitter disagreements between these two powers. In this regard, the discussion of the project to create the Civil Registry, which eventually led to the definitive secularization of demographic records in the 1880s, had a prominent role in the redefinition of such relationship and in the consolidation of the State monopoly over vital records. Equally relevant were the State efforts to erode the multiple forms of resistance of the population, the touchstone of the statistical production. Taking the experience of other latitudes as point of reference and analyzing the role played by provincial statistics officials as mediators between the capital and the administrative peripheries, I offer some explanations for this particular form of resistance. The final section of the chapter touches on the establishment of the Geographic Section of the Statistics Office, seen as a symptom of the eagerness to enlarge both the domain of the statistical division and the scope of the State's informational monopoly.

In contrast to the problems faced by previous administrations, namely the positioning of the Statistics Office within the bureaucratic grid and the definition of a coherent and feasible research agenda, the phase that I analyze here is characterized by an increasing concern with the internationalization of national statistics, which led to the signing of cooperation and bibliographical exchange agreements with foreign institutions. This coincided with the emergence of global scientific institutions interested in unifying the production of State statistics and which found in the international congresses of the discipline (celebrated from 1853 in different European cities) a permanent sounding board. The same happened with geography toward the end of the third quarter of the nineteenth century, due to the increasing gravitation that the study of territory would have in the modernization of State research programs. As I will show, domestic policy and scientific diplomacy recurrently converged during Lindsay's administration, giving way to a synergetic relation that would result in the assimilation of more demanding scientific standards that had a notorious impact on the bureaucratic organization of the production of statistics.

### 3.1. Santiago Lindsay and the reorientation of State action on statistical matters

Although Santiago Lindsay's administration started officially toward mid-1858, he had already imposed a new pace on the Office in his role as interim director. During the first six months of that year he modified the categories to order the information the province had to send, set the foundations for the production of industrial statistics, and achieved to prepare various reports with the data accumulated for the national repertoire. Also, he reorganized the structure of the staff and hired assistants for editing and binding the 2,500 rustic copies of the 1854 census, which were sent to the public offices and legations. The only setback came from the political arena. Shortly after taking office, Lindsay had to face the consequences of the Civil War of 1859, which affected the communication with the northern provinces and temporarily suspended the chains of data circulation.<sup>253</sup>

Who was this man who assumed with such intensity the conduction of the Statistics Office? The clues on his life are sparse. He would have been born around 1825 into a family of Scottish and Catalan immigrants [figure 3.1]. He studied Law with Andrés Bello and during that routine became friend of those who would be his literary and political peers: José Victorino Lastarria, Manuel Antonio Tocornal, Antonio García Reyes, among others. He was part of the Literary Movement of 1842, and in that context embraced liberal ideas.<sup>254</sup> Although his political views did not lead him to take big risks, he should have shared the fervor that led his contemporaries to be part of the political and armed struggles against the Conservative governments of the first half of the century. Along with his comrades he participated in the writing of *El Crepúsculo* (1843-44), a newspaper that is considered to be the foundation of Chilean Literature, publishing short stories, poems, and dramatic texts that explain why he did not persevere in that trade.<sup>255</sup> Political journalism, however, was what captured his attention, collaborating assiduously in newspapers of Valparaíso and Santiago. Someone pointed out that he never obtained the law degree due to the journalistic work, which concentrated his energies from early on. Toward 1851 he appears as one of the editors of *El Araucano*, the official

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<sup>253</sup> AN. MINT, Vol. 122, ff. 411-425v y 431; also Vol. 371, ff. 62-74 and Fernández, *Regionalismo, liberalismo y rebelión*.

<sup>254</sup> See Chapter 2, footnote 208.

<sup>255</sup> See "Jorge" (No. 1), "El comulgatorio" (No. 2), "La mujer de un soldado. Leyenda chilena" (No. 9) and "Versos escritos en un álbum" (Vol. 2, no. 2). *El Crepúsculo. Periódico literario y científico* (facsimile edition by Nelson Cartagena, Inés González and Pedro Lastra) (Santiago: Ariel, 2011).

newspaper, and four years later acted as editor of the *Monitor de las escuelas primarias*, succeeding Domingo Faustino Sarmiento in this post.



Figure 3.1. Santiago Lindsay (c1825-1876). Image: Photographic and Digital Archive, National Library of Chile.

Also in the 1850s he initiated a political career, running as candidate for the National Congress and serving in the Municipality of Santiago. Toward end of the decade his name appeared as candidate for becoming member the Faculty of Humanities of the University of Chile, an invitation he declined. His obituaries portray him as a modest and unambitious man, features that would explain his rejection of such designation. Nonetheless, he assumed several

relevant posts over his life, such as Secretary of the Public Employees Saving Banks and Plenipotentiary Minister in Bolivia in 1872, where he remained almost a year conducting diplomatic negotiations. The following year he was elected deputy for Santiago and in 1876 senator for Valparaíso. He died at the end of April of that year.<sup>256</sup>

Lindsay is the local representative of an active generation of intellectuals that played a central role in the development of Latin American statistics. He shares credentials with Manuel Atanasio Fuentes (1820-1889), the untiring Peruvian lawyer, literate, and academic historian who formed part of the Directorate of Statistics in the 1870s, lead the first national census of the country (1876) and published seminal texts on national demography.<sup>257</sup> Also with the Colombian lawyer, politician, and writer Jose María Samper (1828-1888) author of a well-known statistical report printed in the 1850s.<sup>258</sup> In the Atlantic, his peers were José Andrés Lamas (1817-1891) and Adolphe Vaillant (1816-1881). Lamas, co-founder of the Institute of History and Geography of Uruguay and a reputed collector, compiled valuable statistical information that circulated in Latin America and Europe in the middle of the nineteenth century. Vaillant, on the other hand, was the organizer of the Directorate of General Statistics of Uruguay (1874) and the editor of *Cuadernos estadísticos*, the direct precedent of the Uruguayan *Anuario Estadístico* published regularly since 1884.<sup>259</sup> In Argentina, the list is more extensive and includes several members of the “first generation” of national statisticians, among them Guillermo Rawson (1821-1890), Manuel Ricardo Trelles (1821-1893), Justo Maeso (1830-1886) and Gregorio de la Fuente (1834-1909).<sup>260</sup>

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<sup>256</sup> More biographical information in *El Ferrocarril*, Santiago, May 2, 3 and 5, 1876 and Virgilio Figueroa, *op. cit.*, Vol. IV, p. 55.

<sup>257</sup> See Manuel Atanasio Fuentes, *Estadística general de Lima* (Lima: Tip. Nacional de M. N. Corpancho, 1858) and *Estadística del Estado del Perú en 1878 a 1879 publicada por la dirección del ramo* (Lima: Imprenta del Estado, 1879). On his role as national statistician, see Paul Gootenberg, *Imagining Development. Economic Ideas in Peru's "Fictitious Prosperity" of Guano, 1840-1880* (Berkeley: University of California Press, 1993), pp. 64-71.

<sup>258</sup> José María Samper, *Ensayo aproximado sobre la geografía política y estadística de los ocho estados que compondrán el 15 de septiembre de 1857 la Federación Neogranadina* (Bogotá: Imprenta de “El Neo-granadino,” 1857); see also Patricia D’Allemand, *José María Samper: nación y cultura en el siglo XIX colombiano* (Berna: Peter Lang, 2012).

<sup>259</sup> Andrés Lamas, *Notice sur la République Orientale de l’Uruguay; documents de statistique concernant a la population indigene et le developpement de sa richesse* (Paris: Guillaumin et Cie, 1851); Horacio Arredondo (ed.), *Los “Apuntes estadísticos” del Dr. Andrés Lamas* (Montevideo: Imp. El Siglo Ilustrado, 1928); Adolphe Vaillant, *Apuntes estadísticos y mercantiles sobre la República Oriental del Uruguay correspondientes a 1862* (Montevideo: Imprenta Tipográfica a Vapor, 1863) and Martín Ledo, “El progreso en números. Análisis del *Álbum de la República Oriental del Uruguay compuesto para la Exposición Continental de Buenos Aires, 1882*” (unpublished).

<sup>260</sup> Hernán Otero, *Estadística y nación. Una historia conceptual del pensamiento censal de la Argentina moderna, 1869-1914* (Buenos Aires: Prometeo Libros, 2006), pp. 175-192.

Lindsay's administration style also shows interesting parallels with Spanish intellectual and politician Pascual Madoz (1806-1870), who at the beginnings of the 1840s, and responding to an order of his government to produce an updated statistics, organized an exploratory commission on the European institutional models to be replicated in the Peninsula. The task was entrusted to Juan Bautista Trupita and José Magaz, names that together with Madoz were familiar in the history of Chilean statistics. In parallel and through a dense network of correspondents, Madoz started to compile the news he would systematize in his *Diccionario geográfico-estadístico-histórico de España y sus posesiones de ultramar*, published in 16 volumes between 1845 and 1850.<sup>261</sup>

Within this choreography of statistical forerunners Lindsay appears as a rigorous amateur whose concerns dovetailed more with the profile of the efficient State bureaucrat than of a specialist trained in the methodological foundations of the discipline. Therefore, his approach to this task was pragmatic and basically defined by his diagnosis on the functioning of the provincial bureaucracy and the way in which the statistical project could be developed from those foundations. Lindsay had to face three concrete problems when assuming his post: the legal and bureaucratic fetters that hindered the performance of provincial agents, which had become visible after the reforms of de la Barra and Talavera; the lack of uniformity and consistency in the data accumulation processes; and the need to count on a scientific publication to make visible the work of the institution. The synergy of the different answers to these problems resulted in an important change both in the economy of knowledge production and in the consolidation of the Statistics Office as a regular producer of official numbers.

One of the first measures implemented by the new administration aimed to reorient the direction of the State intervention in the administrative pyramid. Lindsay noted that up to that moment all the reforms had been conceived from a top-down logic, without taking into account the lack of training of provincial bureaucrats and the suspicions the statistical practice still generated among the population. So he proposed an ambitious pedagogic program to counter the misunderstandings between the different levels of the administrative structure, thus reinforcing

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<sup>261</sup> Juan Pan-Mojano, "Pascual Madoz e Ibáñez: perfil de un progresista isabelino," in Francisco Comín, Pablo Martín Aceña and Rafael Vallejo (eds.), *La Hacienda por sus ministros. La etapa liberal de 1845 a 1899* (Zaragoza: Prensas Universitarias de Zaragoza, 2006), pp. 181-185; Juan Pro Ruiz, "Inventario y extracción de los recursos: reclutamiento, recaudación y estadística en la construcción del Estado nacional," in Joaquín del Moral Ruiz, Juan Pro Ruiz y Fernando Suárez Bilbao, *Estado y territorio en España, 1820-1930. La formación del paisaje nacional* (Madrid: Catarata, 2007), p. 630 and Francesc Nadal, José Ignacio Muro and Luis Urtega, "Los orígenes del Instituto Geográfico y Estadístico," *Arbor* CLV (September-October 1996), pp. 59-91.

the meeting points within the State and between it and the population. One of the first versions of this plan appeared in the report of the 1854 census, which among its conclusions described how detrimental was for the national statistical system to rest on illiterate and poorly prepared agents that seemed not to assimilate properly the logic of the operations in which they were involved.<sup>262</sup>

Francisco Bascuñan, at that time Intendant of Arauco, described without euphemisms how the lack of training of the commissioners of his jurisdiction had forced to duplicate the bureaucratic efforts required for the enumeration of the inhabitants in 1854: “The special circumstances of this province impeded to directly apply the instructions you sent for these works. The main obstacle was neither the extension of the rural sub-delegations nor the territorial dispersion of the inhabitants, but the limited number of people who could be summoned to be part of the census commissions. As territorial officials for the most part are illiterate, they could not provide any other assistance than the good knowledge they have about the local geography, which was the knowledge the persons who were effectively commissioned lacked of. For such reason it was necessary to name a greater number of commissioners in order to properly execute these works and to solve the difficulties they offered.”<sup>263</sup>

What Lindsay had in mind followed very closely the impressions pointed out by officials like Guillermo Döll shortly before: while the statistics agents were forced by law to remain in the provincial capitals, their work would be limited to write notes and instructions that uselessly would try to reduce the error and omissions rates that were spoiling statistical research. Taking into account that precedent, Lindsay started to refine the arguments with which would try to convince the authorities about the necessity of enabling provincial officials to travel throughout their jurisdictions; in his view, there were no most appropriate agents to launch a pedagogic program aimed at attenuating procedural shortcomings without any budget overrun.

Lindsay’s bet was to improve two central and mutually dependent aspects of the system of knowledge production: operational autonomy and uniformity in the procedures of data gathering and tabulation. For this, provincial agents should regularly travel deploying a formative program oriented to train the senses and unify the language of all the bureaucrats and even civilians that could be involved in the works of the Statistics Office. Concretely, they should show how to collect and order the information the State needed to be registered in the

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<sup>262</sup> *Censo Jeneral de 1854*, p. 9.

<sup>263</sup> AN. MINT., Vol. 122, f. 211.

forms. In a plan for a future census, written in 1858, Lindsay outlined the notion of bureaucratic mobility he was working on: “Officials will be obliged to tour the province and personally prepare the operation in each sub-delegation and, if possible, in each district. In each of these divisions they would form commissions among the more zealous and prepared neighbors, getting them to know the objectives, and giving detailed and precise explanations about each of the points of the instructions and the materials that demanded attention. With the paperwork at sight, the agent would practice and would make neighbors to practice in smaller units (a suburb for example) what later the commissions must execute in bigger terms in the districts and sub-delegations to which the commissioners belong.”<sup>264</sup>

Actually, what Lindsay wanted to spread was nothing less than a specific way to organize perception, a way that, being functional for the necessities of the State, would facilitate the reproduction of the language and the procedural routines of the modern bureaucrat.<sup>265</sup> So the plan sought for the government to multiply the possibility of extracting, arranging, and processing social information in a uniform way; but it also pursued to foster the emergence of a relatively ubiquitous and increasingly predictable bureaucracy.

### 3.2. The *Anuario Estadístico de la República de Chile*: domestic and foreign policy

In parallel, the employees of the Office began to work on the publication of an annual report to visibilize and amplify the institution’s researches. As seen, this was a duty established by law which none of the administrations of the 1850s had been able to comply with. Accepting that the problems of data collection procedures were far from being overcome in the short term, and despite the provisional nature the first results could have, Lindsay chose to edit a volume that would bring together all the documents he had managed to collect from the beginnings of 1858. He was convinced that the only way to advance toward a regular publication was actually publishing the first issue, regardless of its quality, but not losing sight of its provisional, incomplete and perfectible character.

In mid-1860, the Imprenta Nacional received the materials for the first volume of the *Anuario Estadístico de la República de Chile*, a title whose precision removed from the

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<sup>264</sup> *Censo Jeneral de 1854*, p. 9.

<sup>265</sup> On the categories that framed the perception of nineteenth-century European bourgeoisie, somehow linked to the global production of statistical knowledge, see Donald M. Lowe, *History of Bourgeois Perception* (Chicago: University of Chicago Press, 1982), in particular pp. 1-82.



imaginary the *almanac* leaning contained in the idea of “national repertoire.” This first volume contained the more complete synthesis of the demographic evolution of the country between 1848 and 1858, offering a sort of prequel to the population census of 1854. In February 1861, six months after printing the first issue, a second volume appeared, grouping loose and intermittent data preserved in private and public archives on cemeteries, hospitals, dispensaries, vaccinations, charity institutions, public instruction, and a note on the introduction of printing press to Chile – plus the list of books published in the country between 1812 and 1858.<sup>266</sup> According to Lindsay’s publication program, these two first issues constituted one volume that synthesized all the information available about the last decades and announced the themes that would be addressed in the following deliveries.<sup>267</sup>

The first five volumes of the *Anuario Estadístico*, which covered the period 1848-1863, allow to trace the gradual consolidation of the index of the publication, i.e., those subjects whose study reached regularity and sustained the principle of thematic correspondence between the different volumes: demographics, charity, judicial and criminal statistics, public finance, hospital, prisons, municipalities, and agriculture and mining production rates. Other matters, such as postal service, internal administrative frontiers or the list of civil servants appeared intermittently, but complying with two other editorial principles: chronological succession and data accumulation. Postal service statistics, for example, were made on the basis of the annual reports by the General Directorate of Posts, and were published in three volumes: fifth (1863), which covered the activity between 1855 and 1862; thirteenth (1873), for the period 1863-1871; and twentieth (1879) concentrated on 1872-1878.<sup>268</sup>

Taming a tension that for others proved paralyzing, Lindsay knew how to maintain a productive balance between the precision needed by statistical investigation and the bureaucratic limits of the Chilean State. Instead of shielding behind the lack of material conditions, he chose to order the available resources and put them at the service of a permanent editorial program that allowed moving from the logic of the trials to a eminently scientific statistics. By following this

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<sup>266</sup> A substantial part of the bibliographic information included in this volume had been published four years earlier in *Revista de Ciencias y Letras*, vol. 1, no. 1 (1857): 739-768

<sup>267</sup> See the tables of content and introductions to *Anuario Estadístico de la República de Chile* (hereafter *AERCh*). *Entrega Primera* (Santiago: Imprenta Nacional, 1860) and *AERCh. Entrega Segunda* (Santiago: Imprenta Nacional, 1860).

<sup>268</sup> *AERCh. Entrega Quinta* (Santiago: Imprenta Nacional, 1863), pp. 423-430; *AERCh correspondiente a los años de 1871 y 1872. Tomo décimo tercio* (Santiago: Imprenta Nacional, 1873), pp. 175-188 and *AERCh correspondiente a los años de 1877 y 1878. Tomo vigésimo* (Santiago: Imprenta Nacional, 1879), pp. 123-133.

strategy, Lindsay sought satisfying the institutional necessity of a broadcasting tool for disseminating its researches and installing a pressure (to generate information of quality) that would refine the work of the administrative apparatus. Lindsay's unrestricted commitment to the scientific program of this discipline, whose final acclimatization seemed a matter of willingness and time, was a crucial factor for ensuring the institutional continuity of the publication during its early years.

Another remarkable aspect was the place occupied by the historical memories drafted by Lindsay that served as introduction to the study of each statistical branch. Responding to the interest to confer historical thickness to the analyzed matters, these texts represented a reconciliation effort between the republican present and the colonial past. Embracing an uncommon view among his contemporaries, Lindsay's reflections tended to favor a historical vision in which ideas such as continuity, accumulation, and learning relativized the thesis of abrupt break with which the Independence period was studied. At least with respect to administrative practices, the inheritances seemed stronger than the ruptures. Although in several passages the foundational myth of the revolution shone through, the central theses of these introductions –demographics, cemeteries and vaccinations are perhaps the most eloquent cases– propped up a vision of the past where the colonial and the republican times were part of a continuum.<sup>269</sup>

As relevant as the above was the close connection between the contents of the *Anuario* and the institutions that provided information to the Statistics Office. As it was recognized in the body of each report, a significant share of these investigations depended on the information sent by other State departments. Although in most cases the information was produced by public bureaus committed by law to supply data (as in the case of the postal service, public finance and penitentiary), in others, e.g., demographics, the relationship was less stable. Tensions between civil and ecclesiastical powers with respect to demographic records, for example, conditioned permanently the production of the *Anuario*.

The edition of the first volumes of the *Anuario* coincided with the gradual consolidation of an exchange policy on publications that the Chilean State established with foreign scientific institutions. Working in parallel to international networks of academic cooperation, the

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<sup>269</sup> *AERCh. Entrega Primera*, pp. 215-228 (demography) y *AERCh. Entrega Segunda*, pp. v-xi (cemeteries) y 97-100 (vaccinations).

diplomatic agents of the Chilean State proved effective in mediating between local institutions and their major scientific counterparts in Latin America, Europe and the United States. Thanks to these agreements the local bibliographic production was integrated into numerous exchange and circulation networks that came to meet both the need of international recognition as well as the building of scientific bonds. Toward the end of the 1850s, institutions like the Royal Academy of Belgium, the Royal Academy of Science of Bavaria, Hamburg Society of Naturalists and the universities of Leuven and Vienna, to name a few, had already activated their exchange programs requesting periodic remittances of the *Anales de la Universidad de Chile*, *Revista de Ciencias y Letras*, ministerial memories, the population census of 1854, astronomical observations carried out by the National Observatory and a series of other works of scientific character. With similar intensity the Chilean government ordered its representatives abroad to acquire essential works that, for various reasons, did not form part of these exchanges.<sup>270</sup>

The first international agreements of the Statistics Office date from the beginning of the 1860s. Toward 1862 Lindsay was signing exchanges programs with institutions in London, Washington, Paris, and Madrid, centers of greater statistical activity and backed by substantial bibliographic catalogues.<sup>271</sup> The promotion of these agreements was a critical factor for the development of the Office. The most evident reason had to do with the urgency for assimilating the accumulated experience of other countries and the need of amplifying the scope of visibility of local scientific production. There was a second, less evident reason, and it emerged when Lindsay began to exploit the symbolic dimension of the Office's work. The *Anuario* turned into the reason and also the main platform for insisting in the critique he outlined in 1858: the immobility of the provincial statistical agents was not only affecting the development of the statistical program, but also putting at risk the prestige of a publication with serious scientific pretensions that had began to circulate internationally and in which, therefore, the reputation of the sponsoring State was at stake.

That was the central argument Lindsay included in the claims he reproduced for almost a decade in the first issues of the *Anuario*, suddenly turned into an arena of bureaucratic debates,

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<sup>270</sup> For tracing these circuits of exchange and acquisition, AN. MINEDU., Vol. 41, s.f., Chilean Consulate in Paris, July 13, 1859; Chilean Consulate in Altona, August 12 and October 15, 1860; and Chilean Legation in Brussels, February 8, 1862; in the same collection, Vol. 96, s.f., documents 23, Santiago, July 14, 1859; 70, Santiago, July 25, 1860; 80, Santiago, September 21, 1860; 83, Santiago, October 3, 1860; for purchases in Chile, AN. MINT., Vol. 79, f. 89.

<sup>271</sup> AN. MINT., Vol. 79, ff. 89-89v; Vol. 371, ff. 113 y 187.

and also in the official letters and memorandums Lindsay exchanged with the provincial authorities and the Ministry of Interior. The ideas he registered in his annual report of 1861, and the conclusions he pointed out in the fourth volume of the *Anuario* in 1862, echoed in 1867 when he blamed once again the law of 1855 for restricting the work of the local statistics officials to the mere emission of notes and instructions from the provincial capitals: “reduced to this their powers, their action have not went beyond and their efforts remain fruitless, receiving continuous reprimands from the main office for the delay in the dispatches and the imperfection of the data. But these employees, Mr. Minister, and I believe it is my duty to state it, perform and they have always performed an important service, even in the tight ground in which they can move; without their cooperation the central office would not exist and few works could have been carried out. The creation of those officials was born of a necessity felt very early. What before I have asked the Supreme Government and what today I request is that you complete what this law left unfinished, that is, to allow those employees to travel to the edges of their provinces, to any point where their action is needed; to give them an organization similar to that of the school visitors, and that, during the time of their visits, they receive a small extra pay or travel allowance. This idea entails, it is true, burdening the State Treasury, but this would be compensated by the services these employees will render to statistics and the other branches of the administration, because they could take care of both objectives easily.”<sup>272</sup>

Lindsay’s mention to school visitors was a wink to his own bureaucratic biography and also a hint of the type employee he had in mind when thinking of the future of the statistics officials. Indeed, from the period in which he directed the *Monitor de las escuelas primarias*, Lindsay knew closely the work of school visitor, key agents within the group of traveling bureaucrats that traversed the arteries and administrative borders of the State. Along with the employees of the General Directorate of Posts and the fiscal and legal visitors, school visitors embodied several features deemed critical for the consolidation of the State’s territorial anchoring: mobility, ubiquity and direct supervision. In Lindsay’s view, that was indeed what the office needed: ambulant agents able to move with relative independence installing new bureaucratic routines and mounting circuits for making the circulation of data possible. On that

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<sup>272</sup> AERCh correspondiente a los años de 1865-1866. *Entrega Octava* (Santiago: Imprenta Nacional, 1867), pp. vii-viii. The same complaint had appeared in “Nota del Jefe de la Oficina de Estadística al Ministerio del Interior. Santiago, 22 de mayo de 1861,” *Memoria que el Ministro de Estado en el Departamento del Interior presenta al Congreso Nacional de 1861* (Santiago: Imprenta Nacional, 1861), appendix section, s.p. and AERCh. *Entrega Cuarta* (Santiago: Imprenta Nacional, 1862), p. iv.

depended the construction of an autonomous bureaucracy, volatile enough as to remain sheltered from the effects of local pressures and influential enough as to be able to impose order and legitimize the will of the State.

Lindsay's pressures on his superiors were extended for nearly ten years. Throughout this period, piles of complaints, claims, accusations and disclaimers circulating within the different strata of the administrative pyramid filled the archives of intendancies and ministries. But the limited efforts of the Ministry of Interior to regularize the system and to satisfy the demands of the Office had almost null effect due to a new factor: the bureaucratic pressures the intendants exerted on the officials in charge of statistical research. The limitations of the administrative structure and the uncontrollable expansion of the daily duties in the intendancies had pushed the system to its limit and, therefore, the division of tasks sanctioned by the law of 1855 had blurred completely. While the situation was particularly complex for sub-delegates, who besides governing duties performed judicial functions, the district inspectors did not meet a better fate. The corollary was predictable: as low-level authorities failed in supplying information, the existence of provincial statistics officials seemed irrelevant; accordingly, intendants freed them from their original duties to assign other, more pressing tasks. The chain of command seemed broken. The government recognized this fact in a circular sent on October 1864 to insist, again, on the problems derived from the delays in the remittance of provincial reports. In spite of the complete reorganization of the Office, the successive reforms, and the pressures that Lindsay registered in the pages of the *Anuario*, the circulation of data kept experiencing difficulties.<sup>273</sup>

The first signs of change appeared toward the end of 1869, when the government opened up the possibility of studying a reform of the provincial agents' status. To this end it was decided that an official from the Office visited each province inspecting the actual state of the statistical work and suggesting pertinent reforms. The position of first "statistics inspector" in the history of Chilean statistics fell onto the official Tulio Rengifo, who toured the country between 1870 and 1871. The first visit took place in early 1870 and covered all the provinces of the South until Colchagua; the second concentrated on the North and was completed by the end of 1871. During his expedition, Rengifo evaluated the gathering and processing information procedures, studied the reasons that explained the delay in the remittances of data, identified the appropriate methods

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<sup>273</sup> *El Araucano*, Santiago, October 27, 1864. For more references on the administrative overload of grassroots functionaries, AN. MINT., Vol. 79, f. 115.

to improve the system (without losing sight of the geographical and administrative particularities of each unit), and intervened on archival practices. As Lindsay had planned, the inspection visit had strong pedagogic resonances, combining verbal recommendations, gathering and archival practices testing, reprimands, incentives, and numerous attempts at fostering bureaucratic loyalties between the provincial agents and the central office. Rengifo also wrote a detailed instruction manual that later would be a header text to the provincial agents spread over the country.<sup>274</sup>

As was expected, Rengifo's reports offered fresh arguments to support Lindsay's claims: the lack of uniformity in the data gathering procedures, the absence of backup copies of the information previously sent, and the inexistence of verification protocols for the news collected by sub-delegates and inspectors were part of the setbacks the statistical reason could not (but must) overcome. Although some officials properly fulfilled their tasks with order and rigorousness (as in the Concepción and Valparaíso provinces) for the majority (Atacama and Maule were critical cases) disorganization was the norm. Rengifo's visit was also useful in defining the requirements that the eventual mobility of the provincial agents would impose both on the State budget and the legal status of these functionaries. According to the statistics inspector, the investment would amount to only \$3,000 annually, divided into allowances and bonuses.

Although theoretically such investment would give the State a strong reason to demand the fulfillment of the works and the standardization of the administrative practices in the provinces, this did not solve a pressing administrative imprecision caused by the dual status of the statistics officials as representatives of a central institution (legally subordinated to the Statistics Office) and as employees of the provincial intendancies (which exposed them to the practical subordination exerted by intendants, who imposed on them tasks unrelated to their obligations.) As the Office did not have legal means to sanction the incompetence or inefficiency of its provincial agents, and it was impossible to impose order and regularity with the aid of intendants –who did not miss opportunity to distract these agents with other duties– there was no

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<sup>274</sup> “Informe del visitador de estadística en las provincias del sur,” *AERCh correspondiente a los años de 1870 y 1871. Tomo Undécimo* (Santiago: Imprenta Nacional, 1871), pp. xii-xix; “Informe del visitador de las provincias del norte,” *AERCh correspondiente a los años de 1870 y 1871. Tomo Duodécimo* (Santiago: Imprenta Nacional, 1872), pp. xx-xxiii. The “instruction manual” was in fact a section of the report Rengifo submitted after his visit to the southern secretaries and which the Ministry of Interior ordered to publish later under the title *Recolección de datos estadísticos para la Oficina Central* (Santiago: Imprenta Nacional, 1874).

clear exit strategy for this administrative conundrum. To this situation Lindsay made reference when he pointed out that the provincial agents were in an “extraordinary and entirely anomalous situation” since they “depended on and did not depend on” the Statistical Office. By means of this critique he did not seek to identify an administrative vice, but rather demonstrate that the lack of direct control could neutralize the potential of any reform, including the authorization of mobility.<sup>275</sup> Without a clear decision on this aspect, in April, May, and October 1871 the government issued the first decrees that authorized the agents in Valparaíso, Aconcagua, Ñuble, Valdivia, and Concepción to start their visits. The following year the measure was extended to the rest of the provinces.

While this bureaucratic discussion was taking place, the Statistics Office and the State consolidated a policy that ensured the circulation of the *Anuario* in international circuits, thus enhancing the visibility of the project. The congresses of the discipline held in Brussels, Paris, Vienna, Florence, St. Petersburg, and other cities, played an important role in this regard during the second half of the nineteenth century. The definition of common methodologies and criteria enabled, among other objectives, statistical comparability. Despite the geographic gap, the resolutions adopted in those meetings were followed in Chile, favoring thus the normalization of that knowledge (disciplining the production of the data that nurtured the *Anuario*) and fostering the incorporation of the local statistical production into international networks of scientific cooperation.<sup>276</sup>

Although in several countries of Latin America this process was stimulated by governments, for instance financing translations that were distributed in global fairs and similar meetings, there were occasions when the direction reversed and foreign agents asked for or ordered translations as part of the construction of diplomatic, commercial or scientific bonds. Such was the case of Alfred T. Goshorn, General Director of the Centennial Exposition of 1876 in Philadelphia, who requested the Chilean commission to send a statistical breviary on the state of the country in terms of population, area, industry, maritime movement, and military and naval forces to be included in the official catalog of the event. In charge of this document was

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<sup>275</sup> AERCh correspondiente a los años de 1870 y 1871. Tomo Undécimo, pp. xi-xiii.

<sup>276</sup> AERCh correspondiente a los años de 1868 y 1869. Tomo Décimo (Santiago: Imprenta Nacional, 1870), pp. xiii-xv. On the influence of international congresses in the trajectory of national statistical systems, Harald Westergaard, *Contributions to the History of Statistics* (New York: August M. Kelley Publishers, 1969 [1932]), pp. 172-235. More recently, Nico Randeraad, *States and Statistics in the Nineteenth Century: Europe by Numbers* (Manchester: Manchester University Press, 2010). On the definition of global statistical standards and their relationship with the institutional trajectory of the modern Nation-State, Ventresca, *op. cit.*

Guillermo Carmona, then head of the Commercial Statistics Office of Customs House of Valparaíso.<sup>277</sup> The appointment of Carmona was connected to his experience as editor of a similar scientific-commercial brochure, a celebrated summary of the country's trade statistics corresponding to the period 1844-1873, which the organizing commission of the International Exhibition of Chile used as part of its promotional campaign abroad. According to the Secretary General of the commission, by the end of 1874 circulated a total of 34,000 copies of the summary by Carmona in Spanish, English, French and German.<sup>278</sup> This text was the same Edouard Sève, General Consul of Belgium in Chile, included in the detailed statistical description of the country that his government published on the occasion of the Santiago Exhibition [figure 3.2]. Sève also maintained active correspondence with the directors of the Statistics Office and served as a bridge for the continuous exchange of information between the two countries.<sup>279</sup>

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<sup>277</sup> Manuel G. Carmona, *Apuntes estadísticos sobre la República de Chile* (Valparaíso: Imprenta del Universo de G. Helfmann, 1876). At the same time, the Ministry of Interior had ordered to send a complete collection of the *Anuario Estadístico* and one of the population censuses to give foreigners “an idea of the intellectual advancement of the country.” AN. MINT., Vol. 371, f. 352.

<sup>278</sup> Manuel G. Carmona, *Resumen de la estadística comercial de 1873 y de la estadística retrospectiva de 1844 a 1873* (Valparaíso: La Oficina, 1874). The figures on the circulation of Carmona's text come from *Boletín de la Exposición Internacional de Chile en 1875. Publicación Oficial de la Comisión Directiva. Entrega Quinta, enero de 1875* (Santiago: Imprenta de la Librería del Mercurio, 1875), pp. 521-523.

<sup>279</sup> Edouard Sève, *Le Chili tel qu'il est. Publications officielles de la Commission Belge faites avec l'approbation de la Commission Directrice de l'Exposition Internationale du Chili de 1875* (Valparaiso: Imprimerie du Mercurio, 1876).





**RÉSUMÉ DU RAPPORT**  
 PRÉSENTÉ AU  
 MINISTRE DES FINANCES PAR LE CHEF DU BUREAU DE STATISTIQUE COMMERCIALE,  
**DON MANUEL G. CARMONA**  
 SUR LE  
**COMMERCE DE LA RÉPUBLIQUE DU CHILI PENDANT L'ANNÉE 1873 (1).**

Tableaux du commerce spécial d'importation et d'exportation,  
 par classifications.

**IMPORTATION.**

	1873.	Proportion pour 100 sur le total.	1872.	Proportion pour 100 sur le total.
Articles de luxe et de fantaisie.....	\$ 4.763,712	13.79 %	\$ 5.311,913	18.73 %
Matières premières et objets né- cessaires à l'industrie.....	6.494,630	18.03 "	7.968,952	21.69 "
Produits alimentaires.....	6.002,825	17.46 "	4.833,097	17.23 "
Articles non dénommés.....	17.885,314	50.15 "	18.171,053	47.56 "
<b>Total de l'Importation.....</b>	<b>\$ 34.937,329</b>	<b>100.00 %</b>	<b>\$ 37.998,427</b>	<b>100.00 %</b>

**EXPORTATION.**

	1873.	Proportion pour 100 sur le total des marchandises nationales.	1872.	Proportion pour 100 sur le total des marchandises nationales.
Produits naturels ou fabriqués de l'Agriculture.....	\$ 14.046,467	43.27 %	\$ 14.277,319	35.73 %
Marchandises et Industries na- tionales.....	724,184	2.10 "	408,308	1.25 "
Produits des Mers.....	17.839,993	51.64 "	10.231,025	44.14 "
Or et argent monnayés.....	445,147	1.28 "	1.842,952	5.01 "
Billets de banque.....	689,543	1.71 "	4.019,546	10.87 "
Marchandises nationales.....	34.940,276	100.00 %	38.008,937	100.00 %
Id. étrangères.....	2,577,194		1,988,294	
<b>Total de l'Exportation.....</b>	<b>\$ 37,517,470</b>		<b>\$ 39,997,231</b>	

(1) Ce travail a été fait spécialement pour l'Exposition de 1875 par mon honorable  
 ami Don Manuel G. Carmona, qui a eu la bonté de réviser la présente édition, en  
 corrigant les erreurs qui s'étaient glissées dans la précédente.

Figure 3.2. Cover and detail of the inclusion of Manuel G. Carmona's report in the first volume of *Le Chili tel qu'il est*, the official publication of the Belgium Commission with occasion of the International Exhibition of Chile, 1875. Image: Memoria Chilena, National Library of Chile.

Likewise, the assimilation of international statistical standards provided a renewed battery of “scientific” arguments to the political and intellectual circles –Chilean and foreign alike– that since the early 1840s had begun to forge the discourse on the alleged “Chilean exceptionalism.”<sup>280</sup> It was no accident that the assimilation of the statistical practice and the

<sup>280</sup> Some of the arguments that have sustained this fictional discourse were analyzed by Rafael Sagredo in “Chile, del orden natural al autoritarismo republicano,” *Revista de Geografía Norte Grande* 36 (2006): 5-30; see also María José Schneur, “Visión del ‘caos’ americano y el ‘orden’ chileno a través de *El Mercurio* de Valparaíso entre 1840 y 1850,” in Ángel Soto (ed.), *Entre tintas y plumas: historia de la prensa chilena del siglo XIX* (Santiago: Universidad de los Andes, 2004), pp. 45-77. For critical assessments, Edward Blumenthal, “El mito de la excepcionalidad chilena: un proyecto de construcción identitaria,” B.A. Thesis in History, Pontificia Universidad Católica de Chile, 2004 and Alfredo Jocelyn-Holt, “¿Un proyecto nacional exitoso? La supuesta excepcionalidad chilena,” in Francisco Colom González (ed.), *Relatos de nación. La construcción de identidades nacionales en el mundo hispánico*, 2 vols. (Madrid-Frankfurt: Editorial Iberoamericana, 2005), vol. I, pp. 417-438.

initiating of comparative studies came to reinforce the trope of so-called Chilean superiority in relation to its geographical neighbors and some European nations. Domestic politics and foreign policy were interwoven here with unusual discipline, confirming the versatility of the statistical method and the plasticity of its deductions. In 1870, for example, Lindsay included in the *Anuario* a comparative essay on which he analyzed 33 European and American States based on criteria such as population, public finance, international trade, and railways. In almost all the exercises Chile occupied “positions of leadership,” surpassing the United States, Mexico, Peru, Brazil and Russia, and in more than one branch France, Italy, England, Greece and Spain. Concerning the conclusions of the study, Lindsay regretted the absence or lack of reliable statistical data from other Latin American republics due to the lag in the implementation of their statistical systems. He was convinced that those numbers would have ratified the supremacy of Chile in the continent.<sup>281</sup>

Taking these precedents into account, it is easy to understand the contemporary fascination with statistics as a tool for measuring progress and the role the *Anuario* played in strengthening the Liberal political project. As E. Bradford Burns suggested, the civilization ideal of nineteenth-century Latin American elites was not limited to importing objects and habits that symbolized European modernity. Later the need to count, classify and narrate them came, and in the anesthetic certainty that the gap was diminishing, justifying the reproduction of the structures of exchange that favored such emulation. In this operation, statistics did nothing more than to offer a method, a language, and its scientific credentials.<sup>282</sup>

### 3.3. Bureaucratic mismatches, falsifications, sectorial interests and local resistance: pervasive frontiers of the State’s information monopoly

The establishment of the provincial secretaries of statistics and the consolidation of an agenda of research associated with the publication of the *Anuario* were key milestones in the local acclimation of this science. As was expected, these new conditions resulted in increasing demands for information from the central government, which ignited tensions that reflected the complexity of the type of monopoly the State aspired to mount. In this sense, the consolidation of

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<sup>281</sup> “Estudio comparativo de los principales países de América y Europa,” *AERCh correspondiente a los años de 1868 y 1869. Tomo Décimo*, pp. ix y 175-181.

<sup>282</sup> E. Bradford Burns, *The Poverty of Progress. Latin America in the Nineteenth Century* (Berkeley: University of California Press, 1983), p. 20.

certain minimum protocols in the work of the Institute did not entail standardization, progress, or something similar. On the contrary, the sophistication of informational demands paved the way to emergence of new conflict with those actors directly or indirectly challenged by the State and its process of transferring and concentration of informational capital.

One of the first problems the State addressed was to determine the administrative responsibilities within of the bureaucratic apparatus. The accusations and counter-accusations among intendants, secretaries, governors, sub-delegates, and inspectors over the delays in providing information expressed the difficulties the State faced in establishing an integrated bureaucracy, but also the limits of the capacity of such power to coopt and reorient in its favor the existing circuits and sources of information. The latter point was particularly sensitive in the open conflict between the State and the Catholic Church over the control of vital statistics, which by custom seemed a privileged space of control of religious authorities. The erosion of this legitimacy constituted one of the most challenging frontiers for the configuration of the State statistical monopoly. Certainly the conflicts varied according to the provincial realities, expressing differentials in the degree of State penetration and the strength of local organizations, but looking at the problem as a whole confirms that it was in those spaces, in the everyday life of each unit, where statistical production showed how much was at stake in this process. It was in the margins of cities and the countryside, rather than in the lounges of high politics, where the most revealing confrontations emerged.

A crucial step for assuring the circulation of data to the Statistics Office was a decree issued on July 1853, which introduced archival practices within the ministries. The chief of each ministerial section would be responsible for the production of statistical reports that were to be sent twice a year to the Office. Two simultaneous objectives were covered by this norm, installing criteria of cataloging in the growing documentary production of each State department and ensuring that the Statistics Office had regular sources of supply for its own research.<sup>283</sup> These responsibilities were expanded three years later, by decreeing that these very officials prepared quarterly statistics on those provincial establishments and institutions linked to the ministries, but administratively alien to the jurisdiction of the intendancies. This measure sought to address one of the blind spots left by the circular letter of February 1856, which had defined the tasks of the provincial officers. As the ministerial offices in the provinces also had to be

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<sup>283</sup> Law on Ministry Staff and Their Salaries, July 29, 1853. Anguita, *op. cit.*, vol. I, pp. 611-613.

considered for statistical production (in this case referred to the measurement of administrative work) it was essential that each secretary took charge of activities that until then remained outside the margin of the Office's action.<sup>284</sup> Although these norms were not able to establish communication channels with the celerity expected, the choice of opening them –from the ministries on the one hand, and from the provinces on the other– was crucial for the identification of the grey zones the State had to tame to forge its informational monopoly.

### 3.3.1. Statistics in the provinces and the local questioning of official figures

In Fernando Urizar's administration already appeared reports describing the indifference with which some local authorities responded to the demands of the Statistics Office. Since these tasks were relatively new in the 1840s, it was common that these reactions were interpreted as expression of ignorance and lack of familiarity with the basics of this science. Therefore, it was thought that the systematic exposure to these routines would erode these problematic mismatches. Time, however, would demonstrate that these difficulties also responded to more serious bureaucratic imbalances, particularly where the State still lacked of a disciplined and predictable bureaucracy.

An incident in the Intendancy of Ñuble in the late 1850s illustrates palpably that type of mismatches. In the middle of 1858, the Ministry of Interior sent instructions to the provincial authority to find out which had been the destiny of several requests related to the collection of data. To that date, the provincial statistics official had not complied with any of the tasks assigned, and it was feared that such a failure was linked to the eventual loss of the pertaining documentation. Days later the Intendant replied confirming the suspicions. Practically there were no traces of those documents in the provincial archive, and the only possible explanation pointed to the abovementioned official, who had left the post and emigrated to another city. The disorder was such that it was not even possible to determine if those documents had been lost before his departure or whether the civil employee had taken them with him after leaving the position. In any case, local statistical works were paralyzed. The government had to forward again all the necessary documentation.<sup>285</sup>

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<sup>284</sup> Decree of June 2, 1856, AN. MINT., Vol. 371, ff. 32-33.

<sup>285</sup> Instructions to the Intendant of Ñuble and the Director of the Statistics Office, July 16 and 19, 1858, AN. MINT., Vol. 371, f. 70.

A similar situation occurred in the 1860s in the Province of Aconcagua. The first signs of tension emerged in the middle of November 1864, when Santiago Lindsay sent a message to Rafael Santos, the local statistics official, ordering the immediate remittance of the studies relating to the territorial demarcation of the province, the list of State functionaries working in the province, and the forms for preparing the agricultural and mining statistics. Lindsay's demand was urgent: failing to comply with the request speedily, Santos was exposed to being formally accused to the Ministry of Interior. The answer of the official followed the already well-known protocol of exculpation, indicating that the delay was proportional to the time he had spent in requiring constantly to "who corresponded" the dispatch of the corresponding data. He added that the main reason for the lag had to do with the "work overload of the sub-delegates due to their judicial functions" and the continuous staff rotation between low-level officials. "Accordingly," said Santos, "I think like you that there is no other path than asking the Supreme Government to adopt an effective measure to put and end to this situation." Days later and fulfilling the warning, Lindsay elevated these precedents to the Ministry of Interior, demanding that Santos was directly reprimanded by the Intendant in his condition of direct hierarchical superior. In his presentation, the director of the Office affirmed that there were no reasons to justify the indifference of Santos; although mining and agricultural statistics effectively depended on sub-delegates and inspectors (which did not constitute a satisfactory excuse either), the same did not apply to the list of provincial employees nor the territorial division of the unit, which were in the exclusive area of his competence. The setbacks caused by these delays, Lindsay accused, not only affected the routine work of the Statistics Office, but also "the timely publication of the Statistical Yearbook." Lindsay's report was received on November 21, 1864. Three days later the Ministry of the Interior wrote to the intendants of Aconcagua and Valdivia, where similar problems had been registered.<sup>286</sup>

Toward May of the following year the conflict remained unsolved. At that point, the official letters that circulated back and forth between the Statistics Office, the Ministry of Interior and the Intendancy of Aconcagua had crossed the limits of the administrative formality to enter into the realm of personal disqualifications. Threats became part of the landscape. "I allow myself to tell you can put into effect your threats of denunciation to the Ministry of

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<sup>286</sup> Rafael Santos' exculpatory letter (San Felipe, November 19, 1864) in AN. MINT., Vol. 79, f. 115. For Lindsay's claim and the Minister of Interior's mediation, see Vol. 371, ff. 135-136.

Interior,” said Santos in a letter to Lindsay, adding: “instead of treating me with no mercy [...], you should indicate to me the proper means to compel a governor to fulfill his part.” Trying to depersonalize the conflict, the head of the Statistics Office requested once again the mediation of the minister, who in turn once again asked the Intendant of Aconcagua to ensure that the official Santos run “timely the instructions of the head of the Central Office [...] advising him to avoid being so disrespectful with his hierarchical superiors.” In spite of the accusations, Santos stayed in the position and the *Anuarios* published during the second half of the decade continued reproducing only partial statistics of the province. Although the Office’s employees in Santiago had to juggle with the material (the calculations received were generally debatable), the fiction of regularity and completeness was maintained and the *Anuario* continued complying with the publication calendar. Four years after the conflict with Santos, the Ministry of Interior had to issue another circular letter to exert pressure on a new axis of disobedient officials: in addition to Aconcagua now figured Atacama, Curicó, and Arauco.<sup>287</sup> The iteration of these conflicts exposed a deep-rooted lack of administrative coordination that would not be corrected without a radical intervention on the circuits of data circulation, as Lindsay had been proposing from the early 1860s. When the government finally authorized the mobility of the provincial statistics officials after Tulio Rengifo’s visit, the scene began to change favorably for the Office, although it did not completely deactivate the ubiquitous misalignments between the capital and the provinces.

Due to their implications for the definition of the quotas of parliamentary representation, the population censuses were other instances in which the tensions derived from the forging of this informational monopoly were expressed. These operations became particularly conflicting toward the 1860s, when the political system began to diversify. If during the first half of the century such system run on the founding opposition between Liberals and Conservatives and the main conflicts were related to the competence for public offices, toward the second half the conflict axes widened to matters of religious nature and the reform of the authoritarian order sanctioned by the Constitution of 1833. In 1865 four political parties were distinguishable (Conservative, National, Liberal, and Radical) and their ideological leanings were delineated by several breaks within the elite –including two civil wars– during the 1850s. Political competition sharpened and this turned the National Congress into a space of increasing gravitation; the

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<sup>287</sup> AN. MINT., Vol. 371, ff. 163-165 y 207.

definition of new balances of power fueled with particular intensity the electoral machineries arranged in each province.<sup>288</sup> As the law tied the allocation of parliamentary quotas to the number of inhabitants of each department, the results of the population censuses became transcendental news for the political parties. Under these dynamics the demographic numbers produced by the Statistics Office started to be periodically scrutinized.<sup>289</sup>

In 1866 official statistics and the State monopoly faced a significant challenge. The scene was the Department of Los Andes, in the Province of Aconcagua. According to the 1865 census, the unit had 29,991 inhabitants; hence it could elect only one representative for the legislature of 1867. But the residents of the locality differed with that number. A municipal commission was organized to review the results and it arrived at a total of 30,144 inhabitants, slightly greater, but sufficient enough to duplicate its parliamentary representation. In order to clarify the situation, the Commission of Government of the Chamber of Deputies summoned the Statistics Office to verify the exactitude of the calculations and to explain the difference of 153 citizens between both enumerations.

Although Santiago Lindsay's report demonstrated that there were no errors in the calculation of the Office, achieving the same result independent from the variables selected to corroborate the numbers, this was not enough to discard the claim of the residents of Los Andes, who basically were putting into doubt the accuracy of the work performed by the Office. The vice-president of the Chamber, representative Domingo Santa María, raised the crucial doubt: "which data deserve more faith: the one gathered by the Municipal Commission or that of the Statistics Office?" Initially the Commission of Government of the Chamber of Deputies had been opened to admit the request of revision by the municipal commission, but this involved a

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<sup>288</sup> Timothy Scully, *Los partidos de centro y la evolución política chilena* (Santiago: CIEPLAN, 1992), pp. 65-88; J. Samuel Valenzuela, "Orígenes y transformación del sistema de partidos en Chile," *Estudios Públicos* 58 (1995): 5-80 and Andrés Estefane and Juan Luis Ossa, "Militancy and Parliamentary Representation in Chile, 1849-1879. Notes for a Prosopographical Study of the Chamber of Deputies," *Parliaments, Estates & Representation* 37, no. 2 (2017): 159-175.

<sup>289</sup> The 1833 Constitution stated that each department would choose a deputy for every 20,000 inhabitants and for a fraction not below 10,000. Thus, a department with 29,500 inhabitants elected only one representative, whereas one of 30,500 could elect two. It is easy to imagine the extent of the conflicts that arose when a relatively large department did not surpass the barrier of 30,000 by a minimum margin; these situations were common in rural units, where the geographic dispersion of the population limited the coverage of the counting. The number of deputies each department could elect determined, as well, the total of departmental voters for the Senate and the Presidency of the Republic (both indirect elections). In 1874 a constitutional reform raised the departmental fraction to 12,000 to elect a second deputy (maintaining the bottom of 20,000 to elect the first). Also, senators turned into provincial representatives elected by direct vote (before, they were national representatives elected by list). Each province could elect one senator for each three deputies and a second one by a fraction of two. Luis Valencia Avaria (comp.), *Anales de la República* (Santiago: Imprenta Universitaria, 1951), pp. 164-165, 170 y 188-189.

problem of proportions: to legitimize particular enumerations executed in parallel to the official instance could open a delicate and potentially uncontrollable institutional scene; it could stimulate other departments to question, with the same arguments, the work of the Statistics Office. In the end the choice was to reject the request, protecting thus the census and safeguarding the monopoly of the only institution recognized by law for the production of statistics.<sup>290</sup>

Nevertheless, the questionings reemerged one decade later, after the 1875 census, which also faced anomalies that hit at the allocation of parliamentary quotas. The complaint started off in the Department of Loncomilla, and soon it extended to Caldera, Rancagua, Coelemu, Puchacay, Concepción, Quinchao, and Castro. These were cases submitted by the very communities or their representatives, but there also were some submitted by the Office, like Talca and Santiago, after detecting noticeable inconsistencies in their respective counts. Part of the problem stemmed from the constitutional reform of 1874, which raised the minimum fraction to select a representative to 12,000 inhabitants. The case of the Department of Quinchao gave account of the new situation. Before the reform the unit had reached the required total to demand a seat in Congress, but with the new one, in effect for the legislature of 1876, it lost that right. The complaints by the remaining departments were born of similar situations, recreating the adverse climate faced by the Statistics Office one decade before.

The revision of the census registries –original forms and reports from provincial authorities– started to make visible the setbacks that surrounded the operation. Forms not correctly bound and with incomplete data; summaries without specification of administrative unit; incongruities between totals and effective registrations; loss of lists, which in some cases made 500 inhabitants disappear; and omissions due to the rigors of the climate and territorial dispersion. The subject was discussed again in Congress, where yet more precedents appeared. Deputy Benjamín Vicuña Mackenna informed the reception of a private note attesting that in Coelemu four hamlets of 1,000 inhabitants each had not been registered, including the family of the departmental governor.<sup>291</sup> In a following session, Santiago Lindsay, who was also a deputy, read a report of the Intendant of Talca in which he advised to increase the results of the census by 40% for the urban part and by 15% for the rural one, due to the problems detected during the

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<sup>290</sup> SCN, Chamber of Deputies, session 30 (ordinary), September 25, 1866, pp. 216-223.

<sup>291</sup> SCN, Chamber of Deputies, session 27 (ordinary), August 5, 1875, p. 426.



information gathering process.<sup>292</sup> Although everybody agreed in that the accuracy of a census was always a necessary fiction, these errors were major and expectedly fed the phantom of a total invalidation.

What was ultimately at stake was whether the Chamber of Deputies had the power to assign representatives regardless of the numbers provided by the Statistics Office in those departments where its calculations had been challenged. “What if the Chamber, on the pretext that the census does not deserve confidence, decided to rectify it under the belief that it has better data? This would be unusual; it would be something that has never happened,” indicated representative Jorge Huneus, adding: “It is not enough that one says ‘the census is bad’ to proceed with its rectification with no more precedents than simple rumors or opinions, which can be as important as you want, but not more than the statistical data, in particular when the problem is so serious.”<sup>293</sup> Different was the opinion of Manuel Antonio Matta, for whom the errors were grave and justified the implementation of corrective calculation on the part of the Chamber of Deputies. This was not about discarding the census nor dismantling the statistics institutions completely, but about demystifying official numbers and repair the political damage their imprecisions generate: “In Belgium, where the enumeration is much easier than among us [...] there is not a single writer who does not assure that the census is mistaken and deficient. Why here, where the difficulties are many, we cannot say the same, without offending the activity and the competence of those in charge of conducting the census?”<sup>294</sup>

Even among the critics of the census predominated the defense of the numbers of the Office. Zorobabel Rodríguez, for example, agreed on that the census was deficient, but determining representation quotas reacting to complaints was worse, deleterious: “A bad census cannot be opposed by anything else than a good census; are we in conditions to do it again? I believe not.”<sup>295</sup> Something similar sustained Santiago Lindsay when defending the power of the Chamber of Deputies to oversee, inspect, and even order a new census in case of gross inaccuracy, but what was out of discussion was the idea of ignoring or manipulating the numbers obtained.<sup>296</sup> The institutional scope of this debate was evident again when deputy Matta proposed

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<sup>292</sup> Lindsay admitted that in the Talca Department the census had been applied “perversely.” SCN, Chamber of Deputies, session 10 (extraordinary), September 30, 1875, p. 160.

<sup>293</sup> SCN, Chamber of Deputies, session 11 (extraordinary), October 7, 1875, p. 176.

<sup>294</sup> *Ibidem*.

<sup>295</sup> SCN, Chamber of Deputies, session 27 (ordinary), August 5, p. 428.

<sup>296</sup> SCN, Chamber of Deputies, session 11 (extraordinary), October 7, 1875, p. 178.

to increase the budget of the Statistics Office and conduct partial censuses, by provinces or departments, to solve the doubts with regard to the accuracy of the national enumeration. The motion even sought that the commissions in charge were the basis for reorganizing the statistical institutions from the bottom-up, perfecting the system from its roots.<sup>297</sup> Although this idea was also rejected and the Chamber of Deputies aligned with the Statistics Office, the questionings of the census had been severe, putting again into doubt the informational monopoly of the institution.

Between the debates of 1866 and 1875 the government authorized the mobility of the provincial statistics officials precisely to intervene on the local dynamics of information gathering. Although the measure had a positive impact on the quality of the information registered in the *Anuario*, this apparently did not apply to the population censuses, which showed the same deficiencies detected by Lindsay in the introduction to the 1854 census. Of course, the type of investigation required for each activity was different. Statistics Office's regular investigations rested mainly on the action of provincial officials and on their expertise to discipline those functionaries operating in smaller administrative units, i.e., sub-delegations and districts. On the other hand, population censuses, for their simultaneous application, national scope, and methodological uniformity, not only demanded a greater degree of coordination between the strata of the administrative edifice, but also the participation of those that made up local commissions and the population, the touchstone of the entire system. In this sense, it seems necessary to differentiate the effects of the gradual consolidation of the Statistics Office. If on the one hand the institution showed increasing levels of control and predictability in the flow of information between its bureaucratic cadres, these achievements did not automatically reflect on more demanding activities, like population censuses, that depended on transactions and bonds located beyond the institutional frontiers.

### 3.3.2. A case of falsification in the production of trade statistics: the Menadier *affaire*

The falsification of data and the errors when gathering information were assumed as part of the landscape in the development of the official statistical systems. No one could discard them and their latency fostered an environment of permanent scrutiny, particularly among politicians and publicists, crucial after events like the population censuses. But falsifications were certainly

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<sup>297</sup> SCN, Chamber of Deputies, session 26 (extraordinary), November 16, 1875, pp. 523-525.

more delicate than errors. The detection of frauds or adulterations generated controversies difficult to maintain within the national frontiers. The increasing internationalization of the discipline not only homogenized standards for statistical production, but also paved the way for the formation of global protocols of scrutiny that at least formally served to monitor how governments were producing knowledge. Therefore, problems like statistical falsification or adulteration undermined both the reputation of the authorities in charge and the numbers they produced, casting doubts on the State and its ways of knowledge production.

A controverted episode of falsification burst in the 1860s in Valparaíso, cradle and capital of Chilean trade statistics. The relatively autonomous development achieved by this branch from the 1840s had received a boost in 1864 with the organization of the Commercial Statistics Office of the Customs House of Valparaíso. This new office, which came to widen the tasks entrusted to the section established in 1843, counted on more employees (a head and two officials) and would operate closely connected with the heads of the different sections of the Customs House.<sup>298</sup> As in general statistics, the accumulation of figures on trade entailed the establishment of a national network of representatives made up by employees of each of the customs offices spread over the country. They were responsible for collecting monthly figures and dispatching them to the office in Valparaíso, where quarterly reports were prepared.<sup>299</sup>

This institution was put into question on January 1868, when some rumors pointed to Julio Menadier, its director, as responsible for a serious case of statistical adulteration. The controversy took hold because the proofs of data manipulation on foreign trade figures were sufficiently forceful to raise suspicions on all statistical outputs produced by the government. If that was a serious menace for the trust in public figures, the matter was even more delicate in a country absolutely dependent on customs taxes. For that reason the episode ignited “a true storm of protests and alarms among the public and in commerce.”<sup>300</sup> The Menadier *affaire* exposed the vulnerability of one of the most visible branches of nineteenth-century statistics.

Of Prussian origin, Julio Menadier arrived in Chile in 1849 and started to work as trade representative in Valparaíso; some years later became a landowner in the Province of Ñuble. In the 1860s occupied important posts in the Ministry of Finance, specifically in the Customs

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<sup>298</sup> On the works of the first section of commercial statistics, see Chapter 2, section 2.5.

<sup>299</sup> Establishment of Statistics Department in the Customs of Valparaíso, July 25, 1864, Anguita, *op. cit.*, volume II, p. 162.

<sup>300</sup> SCN, Chamber of Deputies, session 26 (extraordinary), December 2, 1868, p. 269.

House of Valparaíso.<sup>301</sup> His familiarity with the post of destination had been credited by the publication of his *Estadística comercial comparativa de Chile* (1862), a substantial study with import and export indices, domestic trade, connectivity and general information of interest for the area. The first volume of the work enjoyed favorable reception between intellectuals, politicians, and merchants and many of them became subscribers of the following volumes. The list included high-ranking officials and several government institutions.<sup>302</sup>

Menadier spared no resources to secure a positive impression of his work. The figures he presented, he said, gave a scientific account of the state of the country, eroding foreign and local prejudices on the course of national progress. His contribution, asserted, did not even have equivalence in the publications of the Statistics Office, focused on issues of a different nature, and from which he took distance: “To the isolation in which the ‘Statistical Yearbook of Chile’ is can be explained from its exclusive attention to demographics, sanitary issues, criminal statistics, public education, and other branches that influence powerfully on the life of the nation, but without having devoted equal interest to trade, maritime, agriculture, and industrial statistics in all their vast and interesting ramifications.” Complementing the eminently theoretical leaning of commercial education, his report aspired to illustrate to “all the classes of society,” from the high retailer to the industrial producer, from the landowner and the miner to the coastal shipping pilot, from the simple citizen to the bureaucrat. With these credentials Menadier sought to engrave his name in the local trade and customs history, promoting a militantly numerical statistic that somehow continued the work begun by José Agustín Montiel in the 1830s.<sup>303</sup>

Menadier’s hiring for the Valparaíso Customs House, first as administrator and later as head of the Commercial Statistics Office, came to confirm an established reputation. Foreign publications like the *Anales de la Sociedad Rural Argentina* cited him as authoritative voice in

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<sup>301</sup> Pedro Pablo Figueroa, *Diccionario biográfico de extranjeros en Chile* (Santiago: Imprenta Moderna, 1900), pp. 136-137 and Claudio Robles Ortiz, “Julio Menadier: un ideólogo agrario en la esfera pública,” in Julio Menadier, *La agricultura y el progreso de Chile* (Santiago: Cámara Chilena de la Construcción, Pontificia Universidad Católica de Chile, Biblioteca Nacional de Chile, 2012), pp. ix-lxiii.

<sup>302</sup> See, for example, his requests to President José Joaquín Pérez and the Universidad de Chile. AN. MINT., Vol. 79, ff. 90-92; there are more details in the meeting of the University Council of August 30, 1862, *Anales de la Universidad de Chile correspondiente al segundo semestre de 1862. Tomo XXI* (Santiago: Imprenta Nacional, 1862), p. 169. The Minister of Interior Manuel A. Tocornal and the former minister Jerónimo Urmeneta also supported Menadier, as stated in the introduction to the *Estadística comercial*.

<sup>303</sup> Julio Menadier, *Estadística comercial comparativa de la República de Chile* (Valparaíso: Imprenta y Librería del Mercurio, 1862), pp. v-vii. In a letter to President José Joaquín Pérez, Menadier developed a similar argument: “The yearbook that is published by the Statistics Office covers matters interesting to the entire country, but irrelevant for trade and industry. That is why it goes unnoticed, while the practical knowledge contained in the ‘Comparative Commercial Statistics’ is received with pleasure among all social classes.” AN. MINT., Vol. 79, ff. 90-90v.

Chilean agricultural studies, and partly for this prestige the allegations of data distortion caused such a stir.<sup>304</sup> The controversy started in January 1868 from the newspaper *La Patria*, of Valparaíso, a strongly committed liberal critic of President José Joaquín Pérez's government. Its pages echoed rumors concerning serious inconsistencies in the records of copper, wheat and flour exports.<sup>305</sup> Menadier did not hesitate to come out to debunk the accusations and requesting the report of a commission of recognized merchants to prove the quality of Chilean trade statistics.<sup>306</sup> The last two weeks of that month were consumed between the accusations sent from *La Patria* and *El Ferrocarril* –which between Valparaíso and Santiago led questionings– and the lunges from *El Mercurio*, where Menadier and the Customs Home had their trench.<sup>307</sup>

In early February the subject experienced a peculiar turn. By that date news circulated about the destitution of the official of Customs Accounting, Melitino Villar García. He was accused as author of an anonymous note received by the Minister of the Finance which denounced a series of abuses inside the Commercial Statistics Office.<sup>308</sup> It was not accidental that the subject reached the office of the Minister this way. Until that moment the government had remained indifferent to the controversy, although the articles of *La Patria* had provided enough evidence to confirm the seriousness of the allegations. In that context, the language of the critic tended to radicalize itself. The editors of *El Ferrocarril* left its moderate tone to interrogate the authorities directly for their inaction. “What does the government think it is doing? Allow falsification to continue?” The subject was not puerile, it was affirmed, because the adulteration jeopardized the credit of the country, commercial interests, the veracity of public documents, and the good fortune of the national investments. It was not known that statistics was a malleable instrument and that the manipulation of numbers was a frequent resource in politics. Nevertheless, the authorities not even seemed worried to maintain and protect the statistical simulacra. “What will be said of Chile when it becomes known that the falsification of public

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<sup>304</sup> “Crónica extranjera,” *Anales de la Sociedad Rural Argentina* No. 15, Buenos Aires, November 30, 1867, pp. 490-491.

<sup>305</sup> The issues of *La Patria* that covered the controversy are not available. The following references to their articles come from mentions or fragments reprinted in *El Mercurio* of Valparaíso and *El Ferrocarril* of Santiago, which took part in the development of the accusation.

<sup>306</sup> *El Mercurio*, Valparaíso, January 18, 1868.

<sup>307</sup> *El Mercurio*, Valparaíso, January 18, 25 and 31 and *El Ferrocarril*, Santiago, January 20 and 27, 1868. Recaredo Tornero, proprietor of *El Mercurio*, was contracted with certain regularity for printing documents generated by the Customs House. This helps to explain the campaign for protecting Menadier.

<sup>308</sup> Agustín Montiel to the Minister of Finance, February 1, 1868, AN. Ministerio de Hacienda (hereafter MH), Vol. 650, s/f. The indictment was archived, with neither date nor folio, along with the decree of dismissal. See also *El Ferrocarril*, Santiago, February 5, 1868.

documents has become an ordinary and current *affair*? What will be said outside Chile of our bureaus and all our employees, knowing that the head of statistics in Valparaíso remains in his position, proven these marvelous falsifications that the public already knows about and that the government has the obligation to know before anyone? What will be said is easy to foresee. It will be said that this is a country of idiots of the worst species or a country of loafers, where to deceive public confidence and to deceive the foreigner seem the most indifferent thing in the world.”<sup>309</sup>

The diffusion by the press of the details of Melitino Villar’s destitution complicated the position of Menadier. After the reception of the anonymous note, the Minister of Finance Alejandro Reyes concurred personally to the dependencies of the Customs House to clarify the subject. In the middle of an informal confrontation caused by his presence, Villar slid a series of accusations that opened new fronts of critiques. He described the deterioration of the labor relations in the Customs House, which after the arrival of Menadier had become “a seedbed of tangles and intrigue,” with harassments and threats of destitution that had become routine in dealing with employees. It was said that the Commercial Statistics Office was nothing “more than a cake of numbers [*pastel de números*]” and that much of it had to do with the ineptitude of Menadier, described by Villar as a simply favored man, to whom Domingo Santa María, the influential Liberal politician, drew from nothingness to give him the destiny he now was occupying. After the confrontation it was ordered the indictment that identified Villar as author of the anonymous note; in the following days Menadier interposed a complaint against his accuser on charges of “calumny and defamation.”<sup>310</sup>

In the middle of these accusations, which Menadier insisted on describing as a plot against him, the government resolved to organize a commission of fiscal employees to examine the disputed figures.<sup>311</sup> The sense of expectancy in the press had climbed high and all eyes were

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<sup>309</sup> *El Ferrocarril*, Santiago, February 3, 1868.

<sup>310</sup> *El Ferrocarril*, Santiago, February 18 and 21, 1868. As part of this informal confrontation, Villar also denounced Menadier for the acquisition of a carpet, at cost to the Office, which never arrived at the Customs House. A possible embezzlement of funds thus added to the accusations of ineptitude and fraud. From that minute the relations between accuser and defendant moved toward the judicial arena and the debate in the press. The controversy around “the carpet for the Commercial Statistics Office of Valparaíso,” that could have been a mere anecdote, ended up being a parallel soap opera to the accusations for falsification of data. See *El Ferrocarril* and *El Mercurio* between March and May 1868.

<sup>311</sup> It is necessary to remember that when the scandal broke, Menadier asked for the mediation of a commission, but not formed by “simple employees”: “To vindicate myself with solemnity, I need the opinion of a commission

put on the work of this commission, which did not escape from the climate of suspicion either. *La Patria* referred to “sinister rumors” about the development of the case: “it is talked of objections made or to be made, threats, letters, orders emanated from a high origin to make the scandalous falsifications as simple faults [*simples faltas*].”<sup>312</sup> The case was clarified just toward the middle of March, when some press notes leaked that the report of the revising commission confirmed the adulteration accusations. The report or the details of the investigation were still unknown, but everything pointed to the responsibility of Menadier. Nevertheless, the head of Commercial Statistics Office insisted on his innocence and the editors of *El Mercurio* continued maintaining his defense.<sup>313</sup> The strategy bore fruits, judging by the details of the outcome. Instead of being deposed, as the opposition press expected, Menadier got the government accepting his resignation, formalized in a letter that converted the decision into a magnanimous gesture.<sup>314</sup> But the most forceful triumph was another one: the unfavorable report was kept in absolute reserve into the custody of the Minister of Finance.

After the confirmation of the accusations, the government did not have any other choice than to reorganize the Commercial Statistics Office.<sup>315</sup> Subordinate employees were dismissed without the possibility of alleging innocence, which intensified the complaints of selective impunity spread by the press. In the middle of those adjustments it was even proposed that the Statistics Office of Santiago should be transferred to Valparaíso, taking direct control of trade numbers. Several rumors reappeared, numerous and well fabricated, relative to the confidentiality that was imposed on the report.<sup>316</sup> Nobody was surprised that in a matter of days the attacks reached once again the Minister of the Finance, identified as the most benefited from the impunity. His closed defense of Menadier, untenable according to the press, could only be explained from complicity or the fear of being exposed. Indeed, that was the tone of new rumors about the existence of several documents that implicated him with the statistical adulteration, all

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composed by the most notable traders, to whom to I could prove that Chilean commercial statistics keep up with European publications.” *El Mercurio*, Valparaíso, January 18, 1868.

<sup>312</sup> The article of *La Patria* was reprinted in *El Ferrocarril*, Santiago, March 11, 1868.

<sup>313</sup> *El Mercurio*, Valparaíso, March 12, 1868.

<sup>314</sup> The resignation took place in April 3. *El Mercurio*, Valparaíso, April 21, 1868.

<sup>315</sup> “Memoria de la Aduana de Valparaíso correspondiente al año de 1867,” Valparaíso, April 4, 1868, and Agustín Montiel to the Minister of Finance, Valparaíso, May 1, 1868, AN. MH., Vol. 650, s/ff.; also *Memoria que el Ministro de Estado en el Departamento de Hacienda presenta al Congreso Nacional de 1868* (Santiago: Imprenta Nacional, 1868), p. 37.

<sup>316</sup> *El Ferrocarril*, Santiago, April, 15, 22 and 29, 1868.

of them kept by Menadier.<sup>317</sup> Some went further, such as Juan Domingo Arteaga, who spoke of open collusion between the resigned chief and the minister. With the departure of Menadier, Arteaga said, Reyes “lost the right arm of his eloquence” and the manufacturer of the “*flying statistics*” with which the minister used to take part in public debates. Everything came down to a question that many seemed to ask: “why was the head of the Commercial Statistics Office removed from his position, while the minister remains in his if the latter has not sinned less than the former against the truth?”<sup>318</sup>

Although toward May the case faded in the press, it recovered notoriety toward December 1868, when the news ventilated that Minister Reyes had designated Menadier as traffic warden on one of the commercial routes to Argentina. Such appointment not only reactivated the suspicions of complicity between both civil servants, but also the controversy over the reserve applied on the report of the fiscal commission, which impeded to know the scale of the adulterations perpetrated by Menadier. What is interesting about this discussion is that it reflected the widespread disrepute that hovered over official figures. While the ministerial defense tried to reduce the impasse to mere mistakes of calculation or errors during the printing process, making it impossible to speak of administrative crime, the critics insisted that the damage was serious and had irrecusably injured the public faith. The repeated references to the commercial statistics as a “cake of numbers” or a “sack of lies and falsifications” put in evidence the depth of a crisis that crossed that entire year.<sup>319</sup>

Although the reorganization of the Commercial Statistics Office neutralized the critiques with respect to the governmental indifference and made possible the gradual public rehabilitation of its calculations, the vulnerability of the system remained recorded in the political memory. In 1875, in the middle of an extensive discussion around the reorganization of the offices of the Ministry of Finance, the Menadier *affaire* reemerged when determining the salary assigned to the chief of this unit. The embarrassing episode was cited repeatedly as a warning of the need to properly remunerate a key official on whose zeal depended the national and international credit of official statistics. Short-term criteria and critical visions with respect to the abilities required for the preparation of trade statistics tended to monopolize the debate, reviving thus the

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<sup>317</sup> *El Ferrocarril*, Santiago, April 21 and 22, 1868.

<sup>318</sup> *El Ferrocarril*, Santiago, April 27, 1868. The note was signed by Juan de las Viñas, pseudonym of Juan Alemparte; original emphasis.

<sup>319</sup> To follow the parliamentary discussion, SCN, Chamber of Deputies, session 26 (extraordinary), December 2, 1868, pp. 269-270 y 274-275 and session 28 (extraordinary), December 5, 1868, pp. 283-285.



administrative threats over commercial statistics and reflecting the contradictions within the powers of the State while determining whether to invest or not in a modern statistical system.<sup>320</sup>

### 3.3.3. Sectorial interests: the impenetrability of the agricultural world

The modernization the agricultural sector experienced in the second half of the nineteenth century, expressed in the importation and extensive use of technology, the creation of education institutions, and the formation of a public opinion emphatic with the interests of landowners, also impacted on the development of statistical knowledge, as one of the most appropriate instruments to measure and plan future transformations.<sup>321</sup> Its reception between landowners, nevertheless, was not free of conflicts. The distrust derived from the automatic nexus between statistics and taxes and the resistance to the meticulous registry of the daily activities, formed an almost insurmountable barrier for both the Statistics Office and the National Society of Agriculture (SNA, by its name in Spanish), which in the first number of its bulletin already disserted on the advantages of this knowledge.<sup>322</sup> In light of this veiled conflict between guild interests and institutional pressures emerged a new foci of tensions for the statistical field.

The interest of the State to regulate the production of this type of statistics, apart from the economic importance of the activity, was due to the fact that producing good agricultural statistics was interpreted as a sign of institutional maturity. Nineteenth-century statisticians coincided in that only a consistent and well administered statistical system –an attribute of any modern polity–was able to domesticate what seemed to be one of the most complex branches of the “science of the State.” Applying a realism unseen in other matters, Chilean authorities assumed that in this item the expectations had to stay low or at least proportional to the material and intellectual resources available. Part of that attitude was defined looking at the French case, which with the Belgian one represented recurrent references during the entire second half of the century. In 1859, shortly before the appearance of the *Anuario*, Santiago Lindsay shared with the

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<sup>320</sup> SCN, Chamber of Deputies, session 16 (extraordinary), October 19, 1875, pp. 268-269 and session 18 (extraordinary), October 26, 1875, pp. 289-290, 292 and 293-294.

<sup>321</sup> For a notable approach to the process of agrarian modernization in the second half of the nineteenth century, which of course included more aspects than the above mentioned, see Claudio Robles, *Hacendados progresistas y modernización agraria en Chile (1850-1880)* (Osorno: Universidad de Los Lagos, 2007) and “Controlando la mano invisible: la Sociedad Nacional de Agricultura y el mercado de maquinaria agrícola (1889-1902),” *Historia* 42 (2009): 203-233.

<sup>322</sup> Anonymous, “Necesidad de mejorar nuestra estadística agrícola,” *Boletín de la Sociedad Nacional de Agricultura*, vol. I (1869): 53-54.

Ministry of Interior some reflections on that experience, warning that neither the resources nor the recruitment of a body of numerous civil employees ensured immediate success. To establish an efficient system for the collection of agricultural data meant to embark on a long term, expensive, repetitive process, whose consolidation would be effective once the daily resistance was disarticulated by the organic development of the State bureaucracy.<sup>323</sup>

Another relevant problem emerged at the time of defining who had to take part in these inquiries. Even though the agricultural commissions could work under the same criteria that ordered the works of a regular commission, the nature of the data compiled here forced thinking about a specific bureaucratic profile. Their agents not only had to perfectly know the territory to cover during the investigations, but they also had to be equipped with “sufficient lights” to appreciate and rectify the numbers that arrived at their hands. Simultaneously, it was recognized that the people engaged in these inquiries should enjoy “certain social position,” because the possible suspicions that the questions may generate could only be neutralized by imposing the symbolic force of the social hierarchy. If in the case of the population censuses these apprehensions did not seem critical, since the susceptibilities these exercises touched were, in Lindsay’s words, “childish” [*pueriles*] and easy to rectify (he was talking about information like age, profession, level of education, and physical features of the citizens), everything was different when it came to agricultural production. The endeavor became complex for three reasons: the recurrent fear that these cadasters could bring with them new taxes; the “mysteries that in a great number of cases [surrounded economic] speculations”; and because, after all, it was an investigation into the fortunes of proprietors, a “tricky point,” it was said, for local customs. To that had to be added more ordinary obstacles, like the fact that the accounting of the properties not always contemplated to plantings and harvests of tenant farmers and small renters, which when added formed not at all despicable amounts; or that in suburbs small farms and haciendas a high number of green grains were consumed, and that they usually were not considered in the registry; or that sub-delegates and inspectors lacked legal endorsement to corroborate the testimony of producers and proprietors.<sup>324</sup>

All the “trials of agricultural statistics” published during the 1860s and half of the following decade were presented as such: mere “trials.” The provisional tone practically

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<sup>323</sup> *Memoria que el Ministro del Interior presenta al Congreso Nacional de 1861*, appendix section, s.p.

<sup>324</sup> *AERCh. Entrega Cuarta*, p. 428.

remained unalterable, in spite of the well-known efforts of the Office to extend the reach of the cadaster, the care for precision in the calculations, and the attempts at reducing the rate of errors that the comparison with other registries left in the open. For example, the fifth volume of the *Anuario* (1863) reproduced the first investigations on the number of domestic animals used for agricultural tasks, whereas in the sixth (1864) appeared the first data on the number of machines used in industry.<sup>325</sup> The census of spare parts and agricultural machinery was one of the chapters that reflected more clearly the challenges to this type of research. As these products also were tracked in the registries of import of the Commercial Statistics Office of Valparaíso, cross-checking allowed to evaluate with facility the consistency of the numbers. In the Agricultural Census of 1865, for example, the calculations of the Office did not show substantial changes in the number and quality of these articles, a different situation from what showed the registries of the Customs House, which pointed to an increase in the admission of spare parts and machines for the biennium 1864-1865.<sup>326</sup>

Fluctuations in the internal circulation and consumption of grain were followed with similar interest. Although relative certainty existed with respect to how much was exported, the lack of knowledge on the total of national production impeded to know the relation between those numbers and the indices of local consumption.<sup>327</sup> In opinion of a SNA member, the persistence of those gaps was one of the main causes of the instability in the structure of prices, which also slowed down the possibility of forming a clear and profitable export policy. In synthesis, the uncertainty was annulling the “positive effects” of speculation.<sup>328</sup>

To revert this situation, in 1870 the directory of the SNA decided to take part in the process of production of State statistics, soliciting that the provincial statistics secretaries took monthly registries of the activity using more comprehensive registers, thus allowing to refine the calculations. Actually, they were asking the State to lay the foundations for an agrarian bureaucracy that had to attend and to promote private interests. Lindsay’s answer was conclusive: if it was already complex to produce annual information using simple registers, which the SNA proposed, although pertinent, was impracticable. This was explained by his well-known diagnosis: “the statistic officials, according to their present organization, are nothing

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<sup>325</sup> *AERCh. Entrega Quinta* (Santiago: Imprenta Nacional, 1863), p. 445. *AERCh. correspondiente al año de 1863. Entrega Sexta* (Santiago: Imprenta Nacional, 1864), p. 376.

<sup>326</sup> *AERCh. Entrega Séptima* (s.p.i., 1865), p. iii..

<sup>327</sup> *Memoria que el Ministro... del Interior presenta al Congreso Nacional de 1861*, appendix section, s.p.

<sup>328</sup> Anonymous, “Necesidad de mejorar nuestra estadística agrícola.”

more than simple conduits to receive and transmit data on everything that takes place outside the population center in which they reside. From there derived the frequent and almost ordinary delays in data remittances, the notable failures detected, and the absence of [information], which make imperfect and incomplete many of our works. These defects in general are found in greater degree in the data related to agriculture; and the reason is clear because [these officials], who have some intelligence, are not those in charge to take the data and to make the observations, but the inspectors or lieutenants of inspectors.”<sup>329</sup>

Although it was thought that the authorization of mobility for the provincial officials – issued in the 1870s– would erode the problems that affected the statistics of this branch, the specificity of its calculations and the resistance of the proprietors prevented a definitive takeoff. It proved of little help that in August 1872 the SNA proposed again to organize a specialized commission, born of its ranks, to assist regularly the Office in everything concerning agricultural statistics.<sup>330</sup> Four years later were circulating the same complaints regarding the accuracy of the measurements, as representative Zorobabel Rodríguez made visible by questioning the scientific status of State investigations. The official answer, vocalized by Minister of Interior José Victorino Lastarria, returned the darts to the domain of the producers, adducing that “the omissions or inaccuracies” of the *Anuario Estadístico* did not have to do with the work of the Office, but with the bad quality of the data collected in the provinces by the officers in charge, “who incur in inaccuracies because of the residents who often resist to give these data on agriculture, and when they get to give them these are wrong.”<sup>331</sup>

Independent of those misfortunes and the iteration of critiques, the agricultural statistics continued being a center of preferred attention for the Office. Toward the end of the decade the branch had consolidated as regular chapter in its main publication. In fact, in 1879, agricultural statistics became an autonomous section of the *Anuario*, appearing as an independent volume. The same happened in 1881 with the data relative to the plantings of 1878 and 1879 and the harvests of 1879 and 1880.<sup>332</sup> In the introduction to the volume, nevertheless, the director of the

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<sup>329</sup> AN. MINT., Vol. 371, ff. 217-219.

<sup>330</sup> AN. MINT., Vol. 371, ff. 247-248.

<sup>331</sup> SCN, Chamber of Deputies, session 35 (extraordinary), December 14, 1876, p. 478.

<sup>332</sup> *Estadística agrícola de la República de Chile correspondiente a los años de 1877 y 1878* (Santiago: Imprenta Nacional, 1879); *Estadística agrícola de la República de Chile correspondiente a los años de 1879 y 1880* (Santiago: Imprenta Nacional, 1881). Although the editorial autonomization may be interpreted as a symptom of consolidation of the agricultural program, there was a more practical explanation: due to the seasonal nature of

Office had to armor its numbers, inviting readers to recall the French case as precedent of the challenges entailed in exercise of this nature. The same objective had the exposition of the execution setbacks and the omissions, as in the case of the Department of Copiapó, in the Province of Atacama, whose report had not been sent in time: “Although the data collection system has not improved and suffers from the same defects and disadvantages that we have noted in previous years [...] the data we publish, if it does not represent the exact expression of the agricultural production, is approximate to the truth and provide a fairly sound basis for forming calculations and deductions on the outputs of the agricultural industry.”<sup>333</sup> But the editorial autonomization did not last too long. Toward the middle of the 1880s agricultural statistics returned to be part of the unique volume of the *Anuario*, without showing significant advances with respect to the atavistic problems that made conditioned their preparation.<sup>334</sup>

### 3.3.4. The secularization of vital statistics: the State and the Catholic Church

Of all the organized actors the State confronted in forging its informational monopoly, the Catholic Church was the one with which it had a more complex relationship. After the collapse of the imperial bureaucracy, the Catholic Church –the only survivor of that shattering– maintained under its control the registry of the three vital facts that constituted the nerve of demographic statistics: births, marriages and deaths. This advantage conferred the clergy a strong social legitimacy. The Catholic Church was also a spatially insurmountable competitor thanks to the territorial dispersion of its agents. Those were the conditions the State had to overcome to take control of this information. In no case this was as a zero-sum game. On the contrary, the emergence of this new monopoly (the State one) was the result of a long process of adjustment and coexistence that extended for at least seven decades, and that initially demanded to bring itself closer to the more powerful bureaucratic structure (the ecclesiastical) to assimilate its

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agriculture, the cycles of compilation and systematization of data had to follow the planting and harvesting calendar, which did not dovetail with the timetable of the Statistical Office.

<sup>333</sup> *Estadística agrícola correspondiente a los años de 1879 y 1880*, p. 1.

<sup>334</sup> See *AERCh correspondiente a los años 1881-1883. Tomo Vigésimo Tercero* (Santiago: Imprenta Nacional, 1884); *AERCh correspondiente a los años 1885-1886. Tomo Vigésimo Quinto* (Valparaíso: Imprenta de “La Patria,” 1892); *AERCh correspondiente a los años 1887-1888. Tomo Vigésimo Sexto* (Valparaíso: Imprenta de “La Patria,” 1892), which included figures of planting and harvesting between 1886 and 1888, and *AERCh correspondiente a los años 1888-1889 y parte del 90. Tomo Vigésimo Séptimo* (Valparaíso: Imprenta de “La Patria,” 1894).

logics and soon reorient them from a different practical criterion. In those terms the delicate relationship of the State with its “(potential) older and stronger rival” was defined.<sup>335</sup>

In the introduction of the first issue of the *Anuario*, Lindsay pointed out that one of the main obstacles for the development of reliable statistics was the absence of method and rigorousness in the parish records.<sup>336</sup> His critique, of course, recognized the complexity of the scene. What one can infer by studying the history of population censuses and statistics in Chile was that the civil authorities kept in mind that the only way toward establishing a viable statistical system was to instrumentalize the strategic territorial dispersion of the Church and the parish priests’ indisputable legitimacy as collector and retainer of demographic information. Therefore, as long as the civil power had no sufficient resources to operate autonomously (this is, without the administrative assistance of the ecclesiastical officials), it should accept a dependence that was nothing but an expression of the clear practical advantages of the Church.<sup>337</sup>

Indeed, if during Colonial times it was effective that “pastors and parish priests knew more closely their parishioners than the chief magistrates who managed them,” during the Republican epoch the situation was not very different.<sup>338</sup> It suffices to review the proclamations and texts that circulated a propos of the eight population censuses that took place in the nineteenth century to document not only that proximity but also the interest of the State to instrumentalize it. In 1811, for example, the civil authorities had requested the intervention of the clergy for the realization of the first population census of the Republic. After confirming the narrowness of the material and human resources of the civil bureaucracy, the National Congress decided to ask the parish priests to prepare the respective registers of their parishioners.<sup>339</sup> Five or six decades later, when the dependency was relatively less visible, the State kept invoking the clergy as an essential agent for statistical tasks, especially for the technical assistance they may provide to the districts commission during the realization of the counts (parish priests continued appearing among the authorities that best knew the territory and its inhabitants), and by the work

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<sup>335</sup> Alan Knight, “El Estado en América Latina desde la Independencia,” *Economía y Política*, Vol. 1, no. 1 (2014): 10.

<sup>336</sup> *AERCh. Entrega Primera*, pp. vi-vii.

<sup>337</sup> Nicolás Sánchez-Albornoz solved this problem by suggesting that, in statistical matters, the degree of State-Church overlap depended on the autonomy and degree of development of the civil bureaucracy. In this case, the precarious beginnings of the State bureaucracy forced an initially close dependence that diluted as the Statistics Office formalized its procedures and strengthen its territorial presence; *op. cit.*, p. 19.

<sup>338</sup> *Ibid.*, p. 22.

<sup>339</sup> SCL, vol. I, p. 174.

of persuasion they could perform from the pulpit, eroding the resistance of the population.<sup>340</sup> The same logic still prevailed in 1895 when, on the occasion of the new general census, the Intendancy of Santiago appealed to the Archbishop and priests of the province to legitimize civil commissioners and make them favorable for citizens by means of their “media of education and propaganda.”<sup>341</sup>

Regardless of some disagreement, the alliance between the State and Church regarding population censuses tended to work satisfactorily, because it was a sporadic activity that did not structurally compromise the pastoral tasks of the clergy. Nevertheless, the situation was radically different in what concerned the systematic production of statistics. When civil servants began to demand the informal integration of the parish priests into the State networks of circulation and systematization of knowledge (deploying a species of “bureaucratic colonization” of the parishes, which to some extent functioned as “local statistics offices”) the ecclesiastical structure did not delay to react defending the nature of its historical monopoly and setting limits on State demands.<sup>342</sup>

In 1856 it took place one of the many debates in the process of redefinition of the relationship between the Church and the State with regard to the production of statistical knowledge. José Hipólito Salas, Bishop of Concepción, sounded the alarm through letter sent to the Minister of Interior, Antonio Varas, in answer to a circular letter for the parish priests emitted in January that same year by the Intendant of Ñuble. Trying to satisfy the expectations created by the law of October 3, 1855, the Intendancy had resolved to order the pastors maintaining a more detailed registry of the demographic characteristics of their parishioners. Until that minute the registers that were used only gathered the number of births by sex, of deaths divided by age and sex, the total of marriages and the specification of illegitimate births to deduce them from the main birthrate. Through the circular, that included the model for a new registry, the Intendant asked pastors to include new data: the number of stillborn and racial origin of the living, occupation, race and marital status (unmarried or widowed) of those who undertook any marriage, as well as the cause of death, race, and occupation of the deceased. José Hipólito Salas’ reply to this demand came swiftly. His answer revolved around three central ideas: the

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<sup>340</sup> On this matter, *Censo Jeneral de la República de levantado el 19 de abril de 1865* (Santiago: Imprenta Nacional, 1866), pp. xiv-xv and *Quinto Censo Jeneral de la población de Chile levantado el 19 de abril de 1875* (Valparaíso: Imprenta del Mercurio, 1876), p. xxii.

<sup>341</sup> *El Ferrocarril*, Santiago, November 13, 1895.

<sup>342</sup> On parishes as local statistical offices, Sánchez-Albornoz, *op. cit.*, p. 23.

illegality of the request of the Intendant of Ñuble (neither the law of 1855 nor the one of the Interior Regime authorized imposing that type of tasks on the parish priests); the practical limits of an investigation plan that needed better prepared civil servants (the proposed form were very complex to deal with); and the folly to demand from the ecclesiastical representatives the fulfillment of functions that not only put their pastoral obligations at risk, but also planted a delicate precedent with respect to the relation between both powers: “I understand very well, Sir Minister, that [...] in the matter with which I am dealing, the views of those who dignifiedly govern the destinies of the Republic are that we must form the real pastor of souls, and that we do not distract him from the sacred functions of his ministry asking him to perform tasks that do not correspond to him and that the legislator learnedly has wanted to entrust to other persons providing them with revenues of the nation. If the parish priest fulfills with dignity the high duties of its sacred ministry, with this alone he will have given to the Republic the most important service.” This way the ecclesiastical authority fixed the limits to the onslaught of the State.<sup>343</sup>

Antonio Varas and Manuel Talavera, then director of the Statistics Office, did have no other option than to welcome and to endorse the protest of the bishop. The reclamation not only adjusted to law, but also revealed to what extent the circular of the Intendancy of Ñuble imposed on the clergy tasks that actually corresponded to civil servants. Just as they could not ask a parish priest to investigate and report on the cause of death of a citizen (that was the duty of a civil authority and a physician), the count of the stillborn could only be corroborated by midwives, *comadrones* or the relatives of the individual. Did this mean that the State was going to allocate resources to keep this type of registries? Not in the short term. Though Talavera was obliged to explicitly recognize that the parish priests “were not clerks,” he affirmed with the same sureness that neither the Statistics Office nor its provincial agents seemed prepared to develop combined statistics, which was actually what the suggestion of the Intendant of Ñuble pointed to.<sup>344</sup>

With the appearance of the *Anuario* and the demands for improving the demographic calculations, the relationship between the Statistics Office and the parish priests became seriously trapped. Relying on the delimitation of areas sanctioned by the Internal Regime Act of

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<sup>343</sup> Intendant of Ñuble’s circular letter and José Hipólito Salas’ reply are in AN. MINT., Vol. 122, ff. 352-353v and 350-351v respectively.

<sup>344</sup> For the letter exchange among Antonio Varas, Manuel Talavera, and the Ñuble Province authorities, AN. MINT., Vol. 122, ff. 357-358 and Vol. 371, ff. 29-30.



1844, particularly in regard to the relationship between civil authorities and managers of the parochial service, the Church hierarchy tried to avoid at all costs that their representatives were absorbed by the State. In fact, on more than one occasion they were forced to reedit the intervention of bishop José Hipólito Salas denouncing the attempts to recruit the parish priests for tasks that went beyond the norm and for which they did not receive any compensation.<sup>345</sup> On the other side, Lindsay insisted on the necessity to introduce improvements in the parochial registries, an inescapable step to perfect the demographic calculations and to generate useful information for the public administration. In his opinion, the cost for obtaining more accurate information was “almost imperceptible,” because it solely implied to extend the questionnaire already in use. So this did not mean an excessive overload as the Bishop’s protest seemed to suggest.<sup>346</sup> At the same time, Lindsay pointed out that due to the religious restrictions of the Catholic registration, a considerable number of inhabitants was left out of the reports the Statistics Office received, among them non-baptized newborns and the increasing number of non-Catholic immigrants. In the latter case, the search tasks duplicated when having to gather numbers between the respective “ministers of the dissident sects” or consuls where there were.<sup>347</sup>

The unstable and controversial nature of the administrative relationship between the State and the Church was evident in a project submitted to the Chamber of Deputies in June 1868 for the establishment of the Civil Registry. Their promoters, deputies Manuel Antonio Matta, Pedro León Gallo, and Domingo Arteaga Alemparte, offered a detailed diagnosis of the tensions that meant the fact that the ecclesiastical representatives continued developing tasks reserved for the civil legal authority. Although it was assumed that the delegation of powers had been necessary and useful given the institutional precariousness of the Republic at its inception, the transformations experienced by society, the relevance demographic records had acquired “for the successful management of government resorts,” and the necessity that these tasks were conducted by officials fully accountable to the law, imposed a substantive revision of the prevailing regime. The subject, in addition, was particularly sensible for the increasing dissident population, of notoriety in provinces like Atacama, Coquimbo, Valparaíso, Santiago, Talca,

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<sup>345</sup> AN. MINT., Vol. 371, ff. 113 y 124.

<sup>346</sup> According to Lindsay’s proposal the new forms should cover: “profession, nationality and level of education of parents of the newborns; regarding marriages, the same data with respect to spouses; on deaths, deceased’s professions, and if they were toddlers, the office of their parents.” *AERCh correspondiente al año de 1867. Entrega Novena* (Santiago: Imprenta Nacional, 1868), pp. vii-viii.

<sup>347</sup> *Ibid.*, p. viii.

Concepción and Llanquihue, which remained under the law of the Catholic clergy for official rites like marriage.

In the narrative of the project, this was not about replacing a regime by another one by decreeing the obsolescence of the parochial registries. On the contrary, the proposal was directed solely to establish a lay regime that took care of the very aims of the civil power without damaging the survival of the ecclesiastical one, whose maintenance was even desirable, so that their archives could serve as endorsement of the universal document. This way, the parliamentarians suggested, the country would move toward the definitive separation of the double function that fell onto parish priests, the ecclesiastical and civilian ones, origin of confusions and overloads that in the end compromised the interests of both institutions.<sup>348</sup> If such division was convenient for the Church, inasmuch as its agents would be left exempt from tasks unrelated to their spiritual mission, the greater were the benefits for the State, which under the new scheme could demand greater levels of efficiency and administrative regularity from its own agents, a hopeful corollary of the bureaucratic specialization that the approval of the project would impose. Also, the proposal made evident the excluding character of all religious registers, independent of the confession they maintained, because they responded to very different objectives from the one of the inscriptions that the projected Civil Registry would conserve, conceived as the unique source and guarantee of individual rights.<sup>349</sup>

The struggle between both institutions reached an increasing intensity during the 1870s and prepared the soil for the approval of the “secular laws” at the beginnings of the following: Cemeteries (1883), Marriages (1884) and Civil Registry (1884). These norms, along with the creation of the civil districts and the promulgation of a new Interior Regime Act in 1885, inaugurated the transition toward autonomous informational practices that secularized

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<sup>348</sup> A circular letter by the Archbishopric of Santiago with instructions on how to proceed before a marriage of dissidents reflects how necessary it was to clarify what kind of authority the priest was serving to when presiding over an act of this nature: “The bridegroom must ask you, as an official authorized by law to certify the marriage, to receive the information his witnesses offer to verify his freedom and the fact that he professes that religion and wants to marry such person, which also professes the same or another religion. Then the information will be received, being always careful [the priest] to be seen as a civil official entrusted to certify the marriage; when the celebration of the marriage takes place, the priest will summon the couple to a place that is neither the church nor the house of the grooms, so that the people do not confuse the purely civil intervention of the priest in the marriage of religious dissidents with the administration of the sacrament among Catholics. The parish priest will also not use the sacerdotal or ritual clothes, or any other religious sign.” Archbishopric of Santiago de Chile, December 22, 1862. *La Revista Católica*, Santiago, January 17, 1863, p. 14.

<sup>349</sup> SCN, Chamber of Deputies, session 5 (ordinary), June 8, 1868, pp. 57-66.

completely the registry of demographic facts.<sup>350</sup> However, that process of civil power consolidation cannot be distanced from the imperfect but irreplaceable bureaucratic experience of the ecclesiastical cadres.

### 3.3.5. The population as irreducible frontier

As indicated in the previous section, the historical control of the Church on population figures was one of the main challenges the Chilean government faced while forging its own monopoly. But the process of transferring legitimacy from one institution to another was not only defined by the open conflict between the hierarchies of both powers, but also in the daily relationship with the population, point of origin and destination of any demographic measure. Hence the importance of reviewing in which terms the civil authorities understood the difficulties faced at the time of dealing with the citizenry, and how this latter reacted to the onslaught of the State.

With respect to the first point, State documentation tends to insist on two motives when giving account of the population's rejection of the routines of statistical knowledge production: fear and ignorance. Convinced that enumerations had as main objectives the intensification of taxation and military recruitment, citizens would have done everything possible to avoid any contact with civil servants; when the confrontation was inevitable, distorting information or refusing to deliver it became the last and most effective recourse. Thus, as these accounts indicate, the distrust toward the authority and the ignorance of the "high intentions" behind these exercises conspired day to day against the interests of the State and, by extension, the political community.<sup>351</sup>

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<sup>350</sup> Andrés Irrarázaval, "Los inicios del Registro Civil en Chile. ¿Ruptura o continuidad con las antiguas partidas eclesiásticas?" *Revista de Estudios Histórico-Jurídicos* XXXVI (2014): 315-341.

<sup>351</sup> Some anecdotes gathered after the 1875 census illustrate the difficulties the commissioners faced at the time of applying the questionnaire. In front of a notoriously old woman, two commissioners announced that they came to take the census. "What is this about? I do not pay anything," responded the questioned. "More clearly lady, how many people have slept last night in this house?" inquired the civil employees. "Why does that concern you?" was her answers. Even though the lady calmed after the commissioners explained to her the meaning of the census and accepted to take more questions, the dialogue was not fluid. When answering the question about her age, the woman declared to be 32 years old. As her physical aspects did not coincide with her declaration, the commissioners resolved to confirm the data consulting if she remembered what age she was during the 1822 earthquake: "Then I was *guaina* [young, in Quechua]; I would be around 15 years." "And your son, how old is he?" "He is 15 years old," responded the woman, "he is studying." Still more explicit was the resistance of a man who initially excused himself to collaborate for being ill. The commissioners insisted trying to find out how many people had spent the night at his address. "I and my woman, if you want to know it," replied the citizen. "No one else?" asked the questioners. The dialogue made possible to get more precise information and find out that the couple lived with a girl and her son. Then came the question on the age of respondents. Partially annoyed, the man informed his age and that of his wife,

Although that is the interpretation that predominates in almost all the introductions to the population censuses and published statistical reports during the nineteenth century, the revision of their content offers a more complex picture, which reflects the limits of this practice in the encounter with a heterogeneous and dynamic daily routine.<sup>352</sup> What first emerged is that an important share of the omissions and problems associated with State investigations had not only to do with the reasons cited by the commissioners, but also with economic-seasonal factors. In short, the population did not seem willing to alter its routines and economic activities to meet the ideals of predictability and order implicit in statistical reason. The preliminary report of the 1875 population census, to name just one example, exposed the extent to which the mobility patterns associated to certain labor structures had affected the success of the operation. As much as it had been impossible to register the numerous inhabitants of Chiloé that integrated the groups of traveling lumberjacks who operated dispersed throughout the region, in Aconcagua and Atacama, where the majority depended on mining work, it was suspected that an important number of citizens had been left outside the cadaster due to the remote location of the deposits or the lack of traces to reach them. If the permanent roaming of carriers, retailers and laborers complicated the scene still more, the same could be said with respect to the Mapuche and Patagonian indigenous populations, generally hostile or openly indifferent to the counts.<sup>353</sup>

The resistance to everything that involved transference of personal information without evident compensation, figured as a recurrent attitude in the repertoire of the collective actions of this period. If in the early twentieth century this was expressed by means of strikes and protests toward the efforts of the authority to introduce systems of personal identification, which ended for example in the “monkey strikes” [*huelgas del mono*] in Valparaíso in 1913 and 1917-18, during the nineteenth century that resistance was expressed less organized but more permanently

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but the fury was uncontrollable when he was consulted over his profession: “Why don’t you put on soutanes if you want to come to confess!” he blurted out angrily. *El Mercurio*, Valparaíso, April 22, 1875.

<sup>352</sup> Another anecdote, also from the 1875 census, gives account of the mismatches between the categories recorded in the forms and the self-perception of the population. When asking a German citizen about his profession, the questioned indicated to be “*cajero*” [box maker]. “Of some warehouse or shop?” the questioners added (teller is the most wide connotation of *cajero* in Spanish). “I make chocolates boxes,” responded the man. “Then you are *carrocero*” [joiner] the officials pointed out trying to be precise. “No, I am *cajero*. The last time they insisted I was *carrocero*, and the courts resolved that I was *cajero*.” *Ibidem*.

<sup>353</sup> For these and other episodes, *Censo Jeneral... levantado el 19 de abril de 1865*, pp. iii-v; *Noticia preliminar del Censo Jeneral de la República levantado el 19 de abril de 1875* (Santiago: Imprenta de la Librería del Mercurio, 1875), pp. 6-19; *Quinto Censo Jeneral de la población*, pp. vii-viii; *Sesto Censo Jeneral de la población de Chile levantado el 26 de noviembre de 1885 y compilado por la Oficina Central de Estadística en Santiago*, vol. I (Valparaíso: Imprenta de “La Patria,” 1889), pp. iii-iv and *La Gaviota*, Curanipe, December 7, 1895.

in the systematic rejection of the voluntary cession of information during population censuses and the production of general statistics. On some occasions this resistance was pronounced by means of actions that denatured the governmental character of the event, turning it almost into a festive activity, whereas in others it was translated into violent acts that put at risk the physical integrity of the commissioners. Hence the custom that in conflicting territories, and where resources permitted, census commissions were accompanied by guards or members of the police force, as happened with the scientific expeditions that crossed the territory for mapping tasks.<sup>354</sup> The authority, of course, diminished the preventive scope of the measurement, insisting on that the police backup only intended that the commissions “were well taken care of” and that the “gentlemen who compose them are recognized in their character of commissioners by the other residents, but of no way to use the force neither to impose unjust orders nor exigencies that are not within their rights.” Therefore, the population had no reasons to fear the operation.<sup>355</sup>

After the application of a census, the national newspapers frequently gathered testimonies that represented colorfully the difficulties experienced by the commissioners during data gathering. It is indeed here where the repertoire of answers of the population is registered, as it happened in one of the marginal districts of the capital during the enumeration of 1875: “[the Commission] had touched one of the most obnoxious parts of the outskirts of Santiago, where there were no lists, where the population was united in great number of tenements. The commission was working incessantly until 12 at night, and there are innumerable the misfortunes and mishaps that had to be suffered in the performance of their assignment. In some parts they were insulted, in others they were even persecuting by throwing stones. And the truth that was not for less, because it is not a pleasant thing that at 12 at night a room is knocked at to request the name of those who sleep. Although they were almost always treated badly, some treated them excessively well. Four *rotos* stood firmly in a corner and did not let the commissioners pass if they did not accept a drink of *chicha*. They had to accept it because the generous drinkers had moved from the offer to the threats. One of the commissioners was a young foreigner who tried *chicha* for the first time. He says that he is resolute not to try it anymore. By force, it is understood, because so *chicha* will always be a little bitter.”<sup>356</sup>

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<sup>354</sup> Andrés Estefane, “Países varios: la *Biblioteca Fundamentos de la Construcción de Chile* y el reconocimiento del territorio nacional,” *Anales de Literatura Chilena* 24 (2015): 362-363 y 365.

<sup>355</sup> These ideas appeared days before the application of the 1875 census in *El Mercurio*, Valparaíso, April 17, 1875.

<sup>356</sup> The episode was registered in *El Estandarte Católico* and reprinted in *El Mercurio*, Valparaíso, April 21, 1875.

It is possible to establish some nexuses between this type of resistance and what the original works of the school of Subaltern Studies systematized years ago, analyzing the problematic relation between power and written culture. The fact that most of the great farmers rebellions in colonial India have ended with selective destruction of official documents, registries and archives, seems a clear symptom of a political reading that denounced the practical and symbolic affinity between writing and exploitation. The association even tended to operate in inverse sense, when these rebels –responding to the conditions of their subaltern experience– took control of the mechanism to validate new forms of authority.<sup>357</sup> The subject deserves certain discussion because the objective hostility toward writing as instrument of subordination also appears in the statistical reports. The agents of the State frequently admitted that at more than one opportunity significant part of the population was excluded from the consultation processes due to the fear that the requested information put at risk their autonomy, was used as excuse for legal subjections, risked their subsistence means, or menaced their intimacy (or the incipient notion of it).<sup>358</sup>

As part of her reflections on the practices of accumulation of symbolic power on the part of the State, sociologist Mara Loveman has explored another dimension of this resistance, analyzing the implications of a popular revolt in northeast Brazil in 1852, the *Levante dos Marimbondos*. The revolt ended up frustrating the attempts of the State to implant the system of civil registry and to apply the first national population census. According to an approved imperial decree in mid-1851, from January 1 on, any baptism or burial was expected to obtain a birth or death certificate issued by the corresponding civilian authorities. Simultaneously, the preparations for the census, which would take place in June 1852, had begun. As soon as the first of these measures entered into effect, the population of the region took up arms. After a month of tension and clashes between civilians and military both resolutions were suspended. The idea of applying a national census was taken up two decades later in 1872, while the civil registration system, launched in 1874, will only start to be effective after the end of the Monarchy. Beyond the situational aspects that explain the success of the uprising and the suspension of the measures, Loveman affirms that the *Levante dos Marimbondos* came to accuse the failure of the

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<sup>357</sup> Ranajit Guha, *Elementary Aspects of Pesant Insurgency in Colonial India* (Durham & London: Duke University Press, 1999), pp. 51 y ss.

<sup>358</sup> See, for example, *Noticia preliminar...*, pp. 8-12; *Sesto Censo Jeneral...*, p. iv and *La Aurora*, Coquimbo, November 26, 1895; on the tension between census-taking and privacy in the Argentine case, Francisco Latzina, *Los censos de población* (Buenos Aires: Imprenta La Universidad, 1884), p. 130.

State strategy for implanting a major administrative reform in open opposition and not in instrumental harmony with the actor who until then maintained control of the demographic registries: the Church. By applying uncritically the Liberal formula that equaled secularization and modern State, when resigning to the possibility of transforming parish priest into agents – instead of enemies– of the civil power, the Brazilian authorities aborted early the possibility of promptly colonizing one of the central functions in the accumulation of symbolic power. In this case, the attitude of the population was of plain rejection to the aspirations of an authority that illegitimately demanded the monopoly on information and practices that historically had been outside its attributions.<sup>359</sup>

Following Loveman's model, I could affirm that the relative long-term success of the Chilean state in the configuration of its informative monopoly was defined to a great extent by the ability with which it instrumentalized the administrative structure of the Church and the consistency with which it wove, from there, its own legitimacy. By all means, that was only the beginning of a complex process of assembly that entailed, as suggested, the parallel development of a purely civil, autonomous and independent bureaucratic network. It is not an exaggeration to indicate that the inclusion of the provincial statistics officials as part of the mobile vanguards of the State was one of the key facts in this process. If in the short-term this reform channeled the interest of the central power in optimizing the procedures of gathering information and reordering the links between bureaucracy, local authorities and population, in the medium term it fulfilled a more gravitating role. Its permanent mobility not only reinvigorated the spatial and relational dimension of the processes of statistical production, but it also opened spaces of interpersonal transaction that gave birth to new forms of social links.<sup>360</sup>

Indeed, in particular from the 1870s on, the provincial statistics officials appear as the most visible agents in the network of interpersonal transactions that sustained the statistical

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<sup>359</sup> Mara Loveman, "The Modern State and the Primitive Accumulation of Symbolic Power," *American Journal of Sociology* Vol. 110, No. 6 (2005): 1651-1683; for a more detailed analysis of the case, but in relation to a complementary argument, "Blinded Like a State: The Revolt against Civil Registration in Nineteenth-Century Brazil," *Comparative Studies in Society and History* 49, No. 1 (2007): 5-39.

<sup>360</sup> I follow the idea of "interpersonal transactions" coined by sociologist Charles Tilly, who offers a useful framework to understand the construction of the informational monopoly of the State at the local level. In the light of this concept I might say that the interpersonal contacts that made the compilation of statistical information possible were not part of permanent relationships, but rather of simple transactions between two sites. It is only from a continuous series of transactions that becomes possible to infer the existence of a permanent relationship, either of rivalry or affinity (or of another type); the accumulation of transactions is what ends up creating common memories, new possibilities of encounters and shared routines, and what alters the initial situation of the involved sites. Charles Tilly, *Identities, Boundaries, and Social Ties* (Colorado: Paradigm Publishers, 2005), p. 7.

work. On them fell an important part of the responsibility and the challenge to establish new routines, loyalties, and commitments between the political center and the administrative peripheries at the time of collecting data. It remains, nevertheless, to ask for the degree of autonomy with which fulfilled their tasks. Although at first sight they could be portrayed as mere intermediaries who translated instructions conceived from the center and codified the information that circulated in reverse, a careful reading of their practices and of the content of the documents they generated suggest that their influence on the production of official knowledge responded to logics that not always replicated the patterns defined by the State. Being direct intermediaries in the encounters between central and local authorities, and being almost the only and most immediate representative of the Statistics Office for the population, they certainly had the ability to manipulate at discretion the intersection between the various discourses, knowledge, and interests that assisted the production of statistical knowledge.

To understand the complexity of this role it is convenient to leave aside any abstract notion of autonomy, and validate instead a more contingent definition of State power. Although it would be impossible to deny the relative subordination of these agents both to the bureaucratic structure of the State and to dynamics of distribution of official power, the act of demanding personal or group information, suggests that the above mentioned structure rested on a series of grey areas that ended up creating liminal spaces, virtually foreign to the fantasies of direct control on the part of the central authority. It is true that the delegation of political power to provincial officials stipulated the legal conditions for building upstream loyalties that ultimately favored the institutions based in the center. But it is not less true that the same act contributed to the consolidation of alternative spheres of control in the basic unit of administration, such as the district, the parish and other minor spaces where the sovereignty and the interests of the capital tended to be adrift.

Thus, the possibility of altering the circuits of information traffic, the benefits associated with continuous mobility, dealing directly with (formal and informal) local authorities, and thematic breadth of the research program converted the statistics official into a complex and, ambivalent actor, who was far from operating as a single tentacle of an all-seeing Leviathan. Accustomed to travel through various structures, they early realized that the asymmetries of power in a space could function as a source of legitimacy in others. When that became clear, the



act of translating the instructions received from the center and encode the information circulating in reverse became more than simple intermediation.

#### 3.4. Domesticating the territory: the creation of the Section of Geography of the Statistics Office

Toward 1872 the visits of the statistics officials to their respective jurisdictions began to produce the first results. Although the rhythms of reaction to the reform were different and tended to reflect historical administrative inequalities (Valparaíso and Concepción continued appearing as the most efficient divisions), for that year the Office had already received reports from nearly all the provinces; the best organized even were sending updated reports. Bucking the initial doubts, the Office began to strengthen its control of the different phases of statistics knowledge production, reducing on the one hand the rates of error and omissions generated at the intermediate levels and improving, on the other hand, the quality of the information obtained in the basic spaces of territorial organization. Although the visits were not developed with regularity in all the territory [table 3.1] and the disparity in the quality of the reports was evident, the general balance was satisfactory. Such, at least, argued Santiago Lindsay in the introduction to volume 15 of the *Anuario* (1875): “If the data and notes gathered until now were not always uniform and some of those works suffer from serious failures that have been impossible to correct [...], they obey in general to a common plan and contain facts and observations from which the study can successively deduce non-negligible benefits. Therefore the money spent on visits to statistical offices has not been sterile, and in my opinion is well compensated for with the results achieved and with those hoped to be obtained later on.”<sup>361</sup>

The comparison of the official communications of the 1860s and earlier with those issued from 1870 on, after the start of the provincial visits, shows substantial change. While, as Lindsay acknowledged, the reform did not mean the immediate overcoming of difficulties, the prognosis concerning the start of a new stage in the production of statistical knowledge was optimistic. In practice, the new provincial reports allowed to resume the job suspended thirty years ago after the publication of the statistics of the Province of Maule, the text that Urizar almost converted into a bureaucratic manifesto and that supposedly inaugurated the saga of the first general statistics of the Republic. If the institutional precariousness of the Office and its lack of

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<sup>361</sup> AERCh correspondiente a los años de 1873 y 1874. *Tomo Décimo Quinto* (Santiago: Imprenta de la Librería del Mercurio, 1875), p. viii.

articulation with provincial bureaucracies precluded back then the materialization of that project, the situation seemed different toward the early 1870s, when the bureaucratic structure showed a relatively superior territorial anchoring and a clear diagnosis of the type of difficulties that obstructed the field work was available. The concrete fact is that the *Anuario* began to publish one by one the descriptions sent by the provincial officials, accounting for a total of fourteen during 1872-1882.<sup>362</sup> Although they were never compiled into a single volume and in fact did not cover the entire territory, together they constituted the very close version of the “national repertoire” projected in the creation of the Statistical Office.

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<sup>362</sup> They appeared as follows: “Descripción de la Provincia de Valparaíso,” *AERCh correspondiente a los años de 1870 y 1871. Tomo Duodécimo*, pp. 271-353; “Territorio de la Colonización de Magallanes” and “Descripción de la Provincia de Concepción,” *AERCh correspondiente a los años de 1871 y 1872. Tomo Décimo Tercio* (Santiago: Imprenta Nacional, 1873), pp. 191-193 and 197-227 respectively; “Descripción Estadística de la Provincia de Llanquihue,” *AERCh correspondiente a los años de 1872 y 1873. Tomo Décimo Cuarto* (Santiago: Imprenta Nacional, 1874), pp. 235-256; “Descripción Estadística de la Provincia de Valdivia,” “Descripción Estadística de la Provincia de Concepción” and “Descripción Estadística de la Provincia de Linares,” *AERCh correspondiente a los años de 1873 y 1874. Tomo Décimo Quinto*, pp. 177-286, 289-440 and 443-484 respectively; “Descripción Estadística de la Provincia de Ñuble,” “Descripción Estadística de la Provincia de Curicó,” “Descripción Estadística de la Provincia de Aconcagua” and “Descripción Estadística de la Provincia de Talca,” *AERCh correspondiente al año de 1874. Tomo Décimo Sexto* (Santiago: Imprenta Nacional, 1875), pp. 145-274, 277-336, 339-416 and 419-533 respectively; “Descripción Estadística de la Provincia de Chiloé” and “Descripción Estadística de la Provincia de Arauco,” *AERCh correspondiente a los años de 1874 y 1875. Tomo Décimo Séptimo* (Santiago: Imprenta Nacional, 1876), pp. 1-30 y 33-180 respectively; and “Descripción Estadística del Territorio de Colonización de Magallanes en 1881,” *AERCh correspondiente a los años de 1879 y 1880. Tomo Vigésimo Segundo* (Santiago: Imprenta Nacional, 1882), pp. 195-200. Considering the prevailing administrative division in 1882 (the year in which the last description of this list appeared, before the incorporation of the territories obtained in the War of the Pacific), the provinces which did not send reports were Atacama, Coquimbo, Santiago, Colchagua, Maule and Biobío.

TABLE 3.1. Visits of provincial statistics officials during the period 1871-1873

PROVINCE	1871	1872	1873
Chiloé	–	January 16	February 18
Llanquihue	–	October 16	–
Valdivia	May 30	March 14	–
Arauco	–	November 30	–
Concepción	October 6	–	April 17
Ñuble	May 13	October 2	–
Talca	–	November 25	–
Valparaíso	April 21	May 29	March 13
Aconcagua	April 21	–	–
Coquimbo	–	October 8	–

Source: *AERCh correspondiente a los años de 1871 y 1872. Tomo Décimo Tercero*, p. xiii. According to the prevailing administrative division during this triennium, the timetable does not register visits for the provinces of Atacama, Santiago, Colchagua, Curicó, Maule, Linares (created in 1873) nor for the Colonization Territory of Magallanes, excluded in this planning for being subject to a special administrative regime.

Although the regularity with which these descriptions began to appear reflected a certain level of institutional consolidation, the fact should not be magnified. Due to the high degree of discretionality with which the provincial civil employees operated, their tasks of inspection and procedural uniformization were far from adjusted to a common protocol that of course impacted on the quality of their reports. For that reason the authorities were obliged to fix a model or to direct the lights toward a specific format that serve as guide for the entire bureaucracy. This role fulfilled the “Descripción de la Provincia de Valparaíso,” mentioned for years as the most

complete provincial report produced after the 1871 reform and referred to as a model for the statistical visits carried out in the last quarter of the nineteenth century.<sup>363</sup>

Beyond the enthusiasm of the authorities, it is telling that the fabric of this text made evident the precarious preparation of the civil employees, in terms of statistical training and with respect to the geographic knowledge of the territory. In this sense, the statistical requests of the State seemed to go beyond the resources and the capacity of the assigned personnel, forcing the implementation of improvised solutions, particularly after the new, more direct relation with the space than the 1871 reform put in practice. In the case of Valparaíso, the official Salustio Peña shaped with total transparency this misalignment between the expectations of the State and the reaction capacity of the provincial bureaucracy: “A so vast a description of the province was requested from me that was absolutely impossible to give, since, without uniting the necessary knowledge, nor having precise means for the object, nothing could be done to carry it out in those points that were talked about, mainly, the geographical and geological part. I found only a means to save these difficulties in part, which was to form a general guide to the rustic estates belonging to the province, subjecting me to the data that the owners or possessors of them provided. In this way I have believed to get closer to the content of those instructions. This apparently came to the attention of the Office and I was pleased to receive its approval. On the other hand, the main point for which I have undertaken this visit has been to study and to know it in all its branches, in order to penetrate to me the way in which the data requested are collected and to make me aware of all those who send it; because, running this branch in the province and not leaving the capital, nothing materially could do, for any knowledge I had, to save the mistakes and faults that very often suffer the data that are sent from the departments. This has been so; my first care has been to take possession of the territory which embraces my powers; and at once to fulfill my task, for which I have appealed to all the resources that I have been able to dispose of, which has enabled me to approach a little more than I was to according to the instructions I have referred to.”<sup>364</sup>

If we bear witness to this testimony and take into consideration the rugged history of the post, it is understandable that official Peña ignores both the geographical characteristics of the territory under his jurisdiction as well as procedures and transactions which until then had made

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<sup>363</sup> To know the favorable reaction of the authorities, *AERCh correspondiente a los años de 1871 y 1872. Tomo Décimo Tercio*, p. xi and *Recolección de datos estadísticos para la Oficina Central*, pp. 3-4.

<sup>364</sup> *AERCh correspondiente a los años de 1870 y 1871. Tomo Duodécimo*, p. 273.

statistical work possible. In that sense, his disclaimers were not a symptom of individual failures but rather a reflection a major fracture: his ignorance was the ignorance of the State which he represented, his disorientation was the disorientation of the bureaucratic system in which he worked for. After all, his words were the empirical translation of the conceptual and material challenges experienced by a State that, without questioning the effectiveness of its means, sought to modernize its administrative practices. Indeed for that reason the strategy adopted by Peña to surpass the technical and intellectual breaches that threatened the success of his commission is suggestive. Instead of imposing an eminently administrative logic and taking possession of the territory in the terms defined by the institution which he served, he chose to install a different conceptualization, validating the geography of the individual property as new descriptive criterion. The right to property and the voice of the landowners thus became opportune substitutes of State rationality.

This latter point, the participation of the landowners as sources of intelligence, imposes consideration of another of the strategies to portray satisfactorily a jurisdiction: the participation of local figures in the production of State knowledge. Even though the bureaucratic tasks always were defined, understood, and implemented as State issues, it is undeniable that none of these commissions had been successful –as relative as this would be– without the support of those influential actors in the basic spaces of social organization. In effect, an approach restricted to the dynamics of the field work confirms, at least for the nineteenth century, the direct connection between local actors and government with respect to the procedures of collection of information. Operating as second filter between the bureaucratic apparatus and the population, these actors defined important part of the consistency and coherence of the informative circuits activated by the provincial civil employees. By all means, the impact of this influence always depended on the relative position of each of these agents in the geography of knowledge production. Either the landowner, the physician, the publisher of the newspaper, the school teacher, the parish priest, or the “illustrious residents,” each acted as facilitator or limiting factor depending on their place in that geography.

Thus, for example, Salustio Peña saved several interviews and hours of investigation with respect to the climate and the salubrity of the Department of Valparaíso thanks to a detailed report presented by one of the physicians of the city. Quoting Montesquieu, Hippocrates and Galeno, reproducing the reflections on climatology of Humboldt and Arago, and resorting to

thermometric observations made by public employees of the Valparaíso lighthouse, the physician had generated a text of such quality that Peña resolved to copy it completely into the edition of the *Anuario*.<sup>365</sup> A less lucky person was Javier Gutiérrez, official of the Province of Llanquihue who carried out his visit between January and April 1873: the recent transfer of the physician of Llanquihue to the capital of Chiloé had prevented him to timely obtain the data necessary to write up this chapter. Determined to close the gap, he decided to extend his stay and compose an original report combining his own observations and the testimonies of some residents. Thanks to those investigations he could inform the authorities in Santiago that in the department almost no endemic or epidemic diseases were known and that although some cases of measles and smallpox had existed, manifestations of them had been so light that it was almost impossible to detect their traces. In the case of endemic pathologies, worrisome news did not exist either: in spite of the humidity, cases of rheumatism were very rare, yet not those of gout which presented higher indices. The strategy, of course, not always yielded such results and it ended up affecting the quality of the reports. Take as example the brief sanitation report of the Department of Carelmapu written up by Gutiérrez following his improvised method: “The climate is cold and rainy, but constantly benign, so endemic diseases are not known and it is generally said that the only existing one is old age.”<sup>366</sup>

Although the assistance offered by the local figures was an irreplaceable factor in the dynamics of statistical knowledge production, this contribution had certain limits and these were determined by the fact that the native experience not always adjusted to the scientific standards, which in theory the work of the Office had to follow. Although the information that these actors could offer was of inestimable value for fashioning qualitative reports, the situation was different in those areas that demanded technical knowledge or major specialization. Geographical knowledge helped to bridge that gap. Under the new scheme of territorial coverage, it soon became necessary for the Office to refine its instruments of territorial analysis and made them available to its provincial agents. That was one of the objectives behind the decision to create the Geography Section of the Statistics Office, established in November 1876 under the direction of geologist Amado Pissis. As I showed in the previous chapter, as of the 1870s Pissis had begun to publish the resulting maps of the territorial expedition he was trusted with in 1848, providing the

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<sup>365</sup> *Ibid.*, pp. 282-287.

<sup>366</sup> *AERCh correspondiente a los años de 1872 y 1873. Tomo Décimo Cuarto*, pp. 239 y 247.

State an updated vision of its dominions. Due to the links of his work with the requirements of the Office, his appointment was a logical decision as a stronger articulation between geography and statistics was expected.<sup>367</sup>

The creation of the Geography Section had as objective to advance the study of the “natural elements of the territory,” especially in mineral and geological matters, with the purpose of “providing the general industry the data relative to the situation and nature of outputs.” Aside from working as archive of all the geographical information available, the section had to prepare a cadastral plane of the Republic; perfect and update the cartographic studies already made; prepare appropriate maps for education in national schools; and advance toward the consolidation of a geological documentation that identified the geographic location of natural resources, the characteristics of the soil, water and climates. Pissis received additional instructions with respect to need of mapping the Province of Atacama, still pending at that date and whose materialization was crucial in the middle of the increasing bordering tensions with Bolivia over the control of the saltpeter industry.<sup>368</sup>

Although the Section of Geography came to satisfy a local need and institutionalized a cooperation shared by other offices of the continent, like the National Institute of Geography and Statistics of Mexico (1833), its creation was also stimulated by the global development of geography in the last quarter of the nineteenth century. As part of his commitments with the Chilean state, Pissis had attended the International Congress of Geographic Sciences celebrated in Paris between August and September 1875. The concurrent nations agreed upon establishing offices or compatible services in charge of “collecting cartographic and geographic publications, and other documents related to the sciences that deal with the knowledge of the globe” with the purpose of implementing exchange programs. As the newly created institution was in line with this purpose, it was decreed that it would coordinate the international exchanges of all works of

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<sup>367</sup> With respect to Pissis and his cartographic contribution, see Chapter 2, section 2.7.

<sup>368</sup> Decree of November 14, 1876, AN. MINT., Vol. 371, ff. 358-360. Due to its frontier condition, the Atacama Province was a permanent source of debates and projects oriented to reinforce State sovereignty, an issue that became urgent as the diplomatic disputes increased. That is why it was so urgent to finish the geodesic and topographic studies of the zone. In fact, in parallel to the establishment of the Section of Geography of the Statistics Office, the Government Commission of the Senate proposed to turn Atacama into a “colonization territory,” applying the same administrative solution implemented for the southern territories. This project was a revision of a previous one submitted by José Victorino Lastarria with the aim of reinforcing State presence by means of the creation of two new departments in the north of the province. See, *Obras completas de Don J. V. Lastarria*. Vol. VI (Santiago: Imprenta, Litografía y Encuadernación Barcelona, 1908), pp. 103-113 and Raúl Soto Villafior, “Posesión del Desierto de Atacama,” *Ius Historia* 3 (2010): 89-115.

astronomy, geodesy, cartography, geography, topography, geology, mineralogy, botany, anthropology, hygiene, zoology, entomology, travel and history, and statistics in all its branches.” Also, the Section would be in charge of elaborating a complete bibliography of local scientific production, including those works non-contemplated in the treaty, with the purpose of sending them to potentially interested institutions. By extension, it would serve as intermediary between the Chilean literary and scientific institutions and the international community.<sup>369</sup> Thus, the new division formally assumed the internationalization promoted by Santiago Lindsay from the 1860s, which had so much contributed to the visibilization and standardization of the scientific production of the Statistics Office.

Lindsay could not witness the organization of the Section of Geography (he died seven months before the decree), but the measure could be mentioned as the perfect closing of his administration. During the eighteen years in which he was in charge of the post (1858-1876), he implemented key reforms for the consolidation of the statistical program, reinforcing the territorial presence of its agents and reducing the error rates in the phase of data collection. His strategy of institutionalization unfolded at national and international level and in the short term he managed to form a relatively differentiated bureaucracy, tied local scientific production to international networks of knowledge circulation, and edited a regular publication that reaffirmed the public character of statistics. Although among his contemporaries there were no doubts regarding the centrality of this discipline to measure and plan the course of the Republic, it was he who pressed them to turn those ideas into concrete and cumulative actions. The regular publication of the *Anuario Estadístico* with its international program of bibliographic exchange; the regularization of the decennial calendar of population censuses; the emergence of the statistics visitor and the authorization of mobility for provincial officials, which together provided more precise territorial descriptions; and the posthumous creation of the Geographical Section are the visible milestones of a committed work deployed in the everyday of the basic units of administration. All this ultimately contributed to strength the territorial anchoring of the State and the progressive legitimizing of its control over information key for governing society. In the global balance, the long process of forging the informational monopoly of the State found in the eighteen years of Lindsay’s administration one of its decisive stages.

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<sup>369</sup> Decree of November 15, 1876, AN. MINT., Vol. 371, ff. 360-361.



## Chapter 4

### **"A country without statistics is inconceivable and ours are very deficient." Crisis and Reorganization of the Republican Statistical Project (1876-1911)**

Toward the early 1870s several reasons existed to assert that Santiago Lindsay's administration had put the Statistics Office on track to achieve its definitive consolidation. The national standardization of knowledge-production protocols showed concrete results, such as the *Anuario Estadístico*, and the progressive internationalization of its research had succeeded in placing Chile on the international map of the discipline. But that scenario would experience a sudden and unexpected turnaround. In a relatively short time, the auspicious image of a South American nation that had managed to tame the secrets of the main administrative science of the nineteenth century was put into question due to a chain of various processes that began blurring the system constructed between 1858 and 1876. The economic crisis of the late 1870s, the beginning of the War of the Pacific in 1879, and the accelerated territorial transformation that followed this conflict, radically altered the balances within the administrative system. In that lapse, the entire institutional apparatus mounted in the previous decades began to show signs of obsolescence.

In less than a decade political actors linked to the administration of the State started to agree that the national statistical system was again in crisis, and the crisis was of such magnitude that the only possible solution was the restructuring of the service. Such diagnosis did not ignore the progress made in the previous decades. On the contrary, those achievements were seen as key milestones for the future of the institution, but only were commendable antecedents, not more, because this time the problems took on a different nature and escaped the capacity of the institution to solve them by itself. The statistical apparatus assembled in the 1840s had been conceived for a territorial, demographic and administrative reality very different from the

physiognomy the country acquired in the 1880s. In the initial context, the Chilean territory did not surpass 1,000 km of extension counted from the surroundings of Copiapó in the north to the banks of Biobío river in the south. That space was divided into nine provinces, inhabited by a population that approached a million and a half according to the results of the census of 1854. The railroad and telegraph networks were just emerging, and cartography offered the first reliable strokes of the republican map. Four decades later that country was unrecognizable. The national area had doubled, the administrative units –counting regular provinces and colonization territories– totaled almost 20 and the population exceeded two million. The national economy had diversified thanks to the development of the mass media and transportation infrastructure, as well as the emergence of modest industrial centers, which explained the rising urbanization rates. The consolidation of the nitrate export industry on the northern border strengthened that trend. Many contemporaries claimed that by the mid-1880s Chile had become a distinct country, a “new Chile.”

Unlike the critiques that had circulated regarding the operational limitations of the Statistics Office in the 1850s and 1860s, the problem now was not about the inefficiency of the statistical division or a poorly planned research agenda, but rather about an institution that seemed to have lagged behind the profound transformations experienced by the country in recent years. With this impression in sight began the studying of various reform projects that aimed to close this gap. Some of them responded to basic budgetary criteria, assuming that the solution depended on the increase of the staff roster and the allocation of greater resources. Others pursued more structural objectives, related to the conviction that the new physiognomy of the country imposed a substantial revision of the administrative philosophy under which the institution operated. The three directors that followed Santiago Lindsay –Francisco Solano Astaburuaga (1876-1888), Vicente Grez (1888-1909) and Francisco de Bèze (1909-1911)– had to balance these reformist pressures and the need to keep an office whose resources did not suffice the technical demands of the new statistical scenario. Paradoxically, the consensus on the urgency of the reform did not translate into an expedited reform process. Almost thirty years passed from the presentation of the first relatively articulated project in 1882 to the approval of the law for reorganizing the statistical service in 1911. That does not mean, however, that in the meantime the institution had stalled. During those three decades, the national system of statistics production underwent several transformations, which emanated from interventions deployed

from different institutional spheres, but without adequate coordination. By that token, the nature of the problem was also changing. If the first reform programs were to reverse the gap between the institution and its context, the law that brought the whole process to an end in 1911 had to be reconciled with the inconsistent institutional setting created by the accumulation of isolated measures adopted on the basis of specific problems.

Importantly, the pre-1911 reform debates occurred in a highly dynamic context with complex institutional consequences. The War of the Pacific (1879-1884) represented the first critical milestone. Its territorial and economic effects quickly altered the bureaucratic routines, since the State had to include among its functions the administration of the occupied provinces and the supervision of the nitrate export industry. In that context, the end of the long process of occupation of the Araucanía (1883) and the consolidation of the Chilean insular territory with the annexation of Isla de Pascua (1888) took place. As a result of this abrupt expansion of the national borders, during the 1880s six new provinces were created, most of them to reorganize the territories incorporated after the end of the war in the far north and in Arauco. This also required a revision of the administrative division at the level of sub-delegations, districts and departments. Additionally, a series of institutional reforms marked a new stage in the physiognomy of the Chilean state: the Civil Registry was created (1884), which allowed the gradual replacement of parishes as a basic unit for demographic records, the new Internal Regime Act was promulgated (1885), and the ministries were reorganized (1887).

If the foregoing already accounts for the profound institutional adjustments that the Statistics Office had to digest because of the territorial, demographic and administrative implications of its tasks, the Civil War of 1891 only exacerbated the sense of general mismatch. This conflict had profound repercussions in the trajectory of the institution, as much in its regular trajectory as in the content of the projects elaborated to solve its crisis. On the one hand, this confrontation ended up disrupting the delicate territorial anchoring of the Office, suspending the processes of data collection in the smaller administrative units and blocking the channels of circulation of information between the administrative peripheries and the political center. On the other hand, the consolidation of a political discourse related to the strengthening of local power institutions, represented by the municipalities, rehabilitated the visions that in the 1820s had proposed the establishment of a decentralized statistical scheme. In that context, the position of the Office as the lead and apex of the entire statistical system was severely questioned. The

production of this knowledge began to be fragmented into a series of specialized and independent institutions, controlled by ministries, municipalities and business associations. Each of these bodies, operating with complete autonomy from the central institution, began to demand specific legislation and prerogatives that led to an inorganic growth of the bureaucracy linked to this administrative science. In less than a decade the Statistics Office had become an irrelevant institution, with little control over the administrative landscape of its competence. One key objective of the law of reorganization of the statistical service in 1911 aimed to reverse this process of de-concentration, strengthening the directing powers of the Office and attuning it to the scientific and social requirements of the new century.

This chapter, divided into six sections, offers an interpretation of the collapse of the nineteenth-century statistical project and the proposals submitted to overcome this crisis. The first section reconstructs the administration of Francisco Solano Astaburuaga (1876-1888), who had to deal with both the effects of the economic crisis of the late 1870s and the development of the War of the Pacific. Particular attention is paid to a crucial measure in the process of dismantling the nineteenth-century statistical service, namely the abolition of the post of provincial statistics official, which had irreparable effects on the disarticulation between the Office and the provincial bureaucracies. The second section aims to describe the profound transformations experienced by the country throughout the 1880s, and which came together in the characterization of Chile as a “new” country. The territorial, administrative and institutional changes described above are reviewed, and this analysis is put in connection with the study of the first projects of statistical reform. José Manuel Balmaceda’s government presented the most important one in 1888 and the third section analyzes it in detail. This specific approach is justified because the discussion of this initiative meant a global review of the successes and errors of the statistical service set up in the mid-nineteenth century and it was on the basis of this diagnosis that broad-ranging reforms were proposed. Because of the tense climate that characterized the presidency of Balmaceda, openly hostile toward the date of the eventual discussion of the project, the debate also expressed the most gravitating conflicts of the Chilean political process.

The fourth section is intended to clarify the impression created by the relative consensus on the terminal crisis of the statistical system (it should be pointed out that this balance has no compensatory effects and only relativizes the depth of the crisis). An overview of the activities of

the Office in the post-War of the Pacific period and until the late 1890s (with the 1891 Civil War in between) account for the institution's efforts to maintain its bureaucratic routines and comply with its minimum obligations. This section covers an important part of the administration of the writer Vicente Grez (1888-1909), who was responsible for systematizing the results of the 1885 population census and directing the national enumerations of 1895 and 1907. Particular attention deserves the trajectory of the *Anuario Estadístico*, which was suspended in these critical years, as well as the appearance of new publications that came to compensate for this loss.

The fifth and sixth sections can be read as parallel histories, as they offer complementary visions of the transformations experienced by this service during the early 1900s. Section five describes the process of statistical fragmentation in multiple specialized offices under the leadership of various ministries. In the same vein, it traces how the strengthening of local power institutions (an idea derived from the political reforms promoted by the triumphant forces of the conflict of 1891) impacted on the physiognomy of this institution, especially with the role that municipalities will assume as new instances of information gathering. Similar attention receives the role of business associations linked to agriculture, mining and industry, which also lobbied for de-concentration and greater sectorial autonomy in the production of this knowledge. The final section addresses the same process, but from the logic of the central institution. Noting that under the new scheme the Statistics Office became irrelevant, and eventually dispensable, Vicente Grez began working on a reform proposal that would reverse de-concentration. This proposal led to the promulgation of a reform by presidential decree in 1909, which turned into the basis for the promulgation of the reorganization law two years later. But that transition from decree to norm was far from mechanical or transparent. Key was the installation of the statistical problem in the National Congress, where the scientific, budgetary and administrative effects of the de-concentration process were intensively discussed. Within the framework of this debate began to take shape not only the overcoming of the exhausted statistical system forged throughout the nineteenth century (at that point deformed by the sequence of isolated reforms approved in the course of the fragmentation process) but also the institutional physiognomy with which the Statistics Office would face the demands of the twentieth century.

#### 4.1. Crisis and first reform projects

After the death of Santiago Lindsay, the administration of the Statistics Office fell into the hands of the lawyer Francisco Astaburuaga Cienfuegos (1817-1892), a career politician from the same generation as his predecessor [figure 4.1].<sup>370</sup> In his extensive bureaucratic history, his management as General Director of the Post Office stands out. He held this position on two occasions, between 1855 and 1860, and from 1867 to 1876. During the former, Astaburuaga embarked on an ambitious territorial expedition that inspired a broad-ranging reform of the postal system.<sup>371</sup> During his second period he directed a series of studies to improve the system of accounting of money orders. Astaburuaga's experience as administrator of the postal service was undoubtedly relevant to his understanding of the operational and coordination challenges the Statistics Office had to deal with. It should be remembered that both institutions emerged under the same institutional context, benefited equally from the expansion of public spending after the Peru-Bolivian Confederation War (1836-1839) and faced equivalent difficulties in their consolidation processes due to the territorial scope of their tasks and the weak territorial anchoring of the State bureaucracy they worked with.

The context in which Astaburuaga assumed the administration of the Statistics Office was rather adverse. The deep economic crisis that affected Chile in the second half of the 1870s forced a thorough revision of the annual budgets, which among other measures meant a generalized 25 percent reduction of the salaries of public officials. The Statistics Office was seriously besieged by this austerity policy. The critiques that circulated about the errors in the application of the 1875 census witnessed a revival and were used as an argument for proposing

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<sup>370</sup> Astaburuaga joined the State administration in the 1840s as official of the Ministry of Interior. He later served as deputy, diplomat, member of the University of Chile and plenipotentiary minister in various periods. He also had experience as local administrator, serving as Intendant of Coquimbo and member of the Santiago Council. As Lindsay, Astaburuaga was part of the Literary Movement of 1842 and together worked as editors of *El Crepúsculo*. On the relationship between Lindsay and Astaburuaga, see Chapter 3, section 3.1. For his general biographical data: Armando de Ramón, *Biografías de chilenos. Miembros de los Poderes Ejecutivo, Legislativo y Judicial 1876-1973*, vol. I (Santiago: Ediciones Universidad Católica de Chile, 1999), pp. 110-111; also Virgilio Figueroa, *op. cit.*, vol. II, p. 21-22.

<sup>371</sup> This expedition was also the basis for writing his *Diccionario Jeográfico de la República de Chile*, a classic book in the geographic bibliography of the nineteenth century. The first edition of this dictionary was published in 1867 in New York, while Astaburuaga was Charge d'Affaires of Chile in the United States. On the cover of the publication, he was identified as an honorary member of the American Geographical and Statistical Society of New York, a record that should have influenced his appointment as head of the Statistics Office (as much as his relationship with the Geographical Society of Madrid). A second edition of the *Diccionario Jeográfico*, updated and expanded, appeared in Santiago in 1899, seven years after Astaburuaga's death. For more details on this work and its author's life, see Domingo Amunátegui Solar, *Don Francisco Solano Astaburuaga* (Santiago: Imprenta Cervantes, 1905), pp. 73ff.

cost reductions at the expense of the statistical machinery. While more ponderous interventions recognized that the solution lay with complete reform of the Office rather than budget cuts, the worsening of the crisis and the restrictions imposed by the start of the War of the Pacific in February 1879 tilted the balance toward the latter.<sup>372</sup>

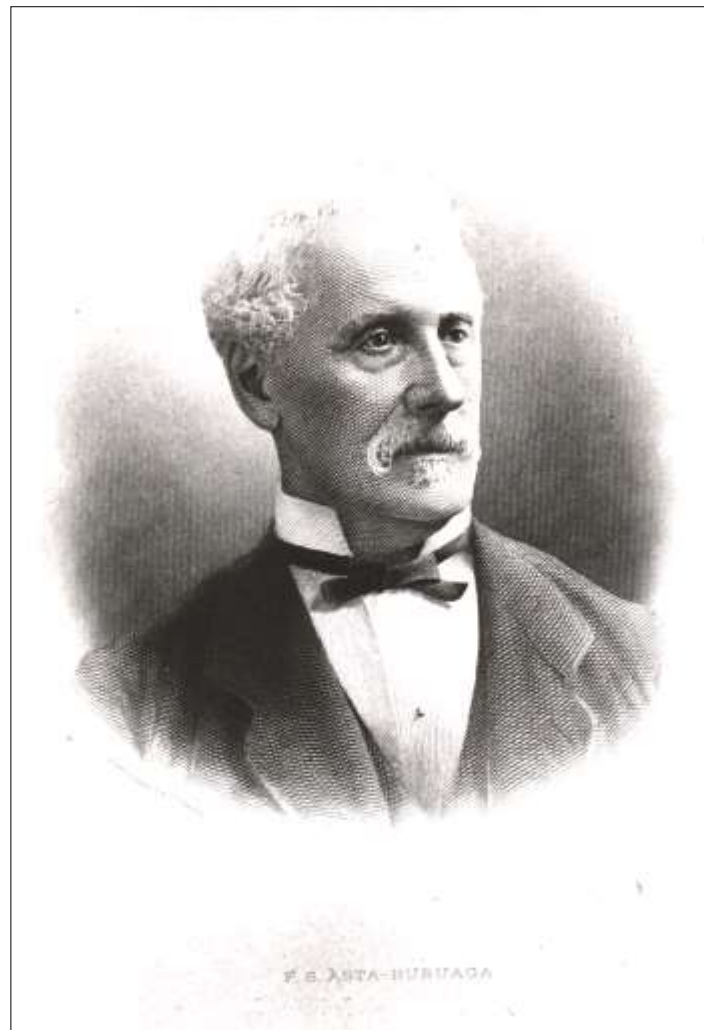


Figure 4.1. Francisco Astaburuaga Cienfuegos (1817-1892), Director of the Statistics Office between 1876 and 1879 and between 1881 and 1888. Image: Photographic and Digital Archive, National Library of Chile.

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<sup>372</sup> SCN, Chamber of Deputies, session 35 (extraordinary), December 14, 1876, pp. 477-478.

The most dramatic cut occurred in April 1879, when the Minister of Interior Antonio Varas proposed to Congress abolishing the post of provincial statistical official established by the law of 1855. The measure aimed handing the tasks of the post to one of the regular officials of each intendancy, who would receive a compensation not exceeding \$ 300 per year. On the one hand, this annulled the bureaucratic exclusivity the law of 1855 had devoted to statistical research; on the other hand, it burdened the daily work of the already strained provincial administrative staff. Likewise, the modest gratification proposed –much less than the average of the original salaries of provincial officials– relativized the importance attributed to these surveys, which in part had been strengthened by the salary policy.<sup>373</sup> Parallel to the presentation of the project, the Ministry of Interior conducted a consultation to assess the impact of the measure on the provincial service. In the respective circular letter, intendants were asked to indicate which positions or functions seemed dispensable considering the budgetary constraints, demanding explicit pronouncements on the consequences of the abolition of the post of provincial statistical officer.

The intendants' responses were mixed. Talca's Intendancy indicated that the abolition of this position was viable, since the statistical tasks could be covered by the school visitor [*visitador de escuela*], who was obliged to visit the jurisdiction annually, while other officials could absorb the data collection in specific areas, such as population records, which was carried out by parish priests. The Intendant of Arauco was of the same opinion, since he used to supervise directly the statistical surveys and, therefore, relieved the regular workload of the official in question. In his view, provincial officials could perfectly assume these tasks, but cautioning the intendants exercised permanent supervision on the collection of data. In Chiloé, the Intendant had already informally suppressed the position, considering it useless, suspending the payment of the salaries, and sending the incumbent to join the civic battalion of the island in the midst of the campaigns for recruitment of the War of the Pacific. The Intendant of Curicó also supported the measure, although his judgment was based more on the incompetence and neglect of the person that had exerted these functions instead of on an administrative evaluation of the relevance of the position. The authorities of the provinces of Linares, Maule, Biobío, Llanquihue, Atacama, and Santiago also rather favored of the suppression, proposing diverse

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<sup>373</sup> SCN, Chamber of Deputies, session 79 (ordinary), April 5, 1879, pp. 120-121.



formulas of reorganization for the absorption of these tasks among the regular officials.<sup>374</sup> Only three provinces opposed the measure: Concepción, Aconcagua and Coquimbo. All presented similar arguments: provincial administrative tasks were already sufficiently demanding to dispense with the official in question, least of all when those officials were among the most efficient and well-prepared of the entire provincial roster.<sup>375</sup>

The parliamentary process that led to the approval of Minister Varas' proposal followed an independent path, apparently divorced from the evaluation offered by the provincial authorities. In fact, in Congress there was no reference to the reports sent by the intendants, who in their coincidences only confirmed the intuition with which the government had acted. In any case, the discussions that prepared this measure revealed important details regarding the progressive denaturalization of the post of provincial statistics official. If in the mid nineteenth century its establishment had represented a step forward in the attempts to strengthen the territorial anchoring of the Office, making possible the regularization of data collection at the provincial level, towards the end of the 1870s these advances had perished. Certainly, the administrative disruptions associated with the economic crisis of the 1870s had deteriorated communication between the Statistics Office and its provincial representatives.<sup>376</sup> During 1879 and 1880 the director of the Office was obliged to send several requests to the Ministry of Interior to intercede with the intendants urging them to regularize the progress of statistical work, which in some cases was several years delayed and affected the quality of information gathered in publications such as the *Anuario*. As much as the suppression of provincial officials would have aggravated such disarticulation, for most of the intendants the post had undoubtedly become irrelevant –otherwise the lack of resistance to the abolition is hardly understandable. From another angle, the position of those intendants who disagreed with the initiative of the ministry cannot be understood as a defense of statistical institutionality, since their arguments pointed rather to the role these officials fulfilled in the general work of their secretaries. Therefore, it appears that provincial officials continued to perform tasks that went beyond their specific

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<sup>374</sup> AN. MINT., vol. 888, s.f., Talca, May 20; Linares, May 15; Cauquenes, May 20; Lebu, May 20; Los Ángeles May 26; Melipulli, June 4; Ancud, June 4; Copiapó May 24; Curicó, May 17, and Santiago, May 15, 1879.

<sup>375</sup> AN. MINT., Vol. 888, s.f., Concepción, May 16; San Felipe, May 15 and La Serena, May 23, 1879.

<sup>376</sup> AN. MINT., vol. 842, ff. 17-20 and 22-24, docs. 37-39, 40, 43, 44, 51-53 and 55, August 4, 12, 19, 22 and 25, October 27, November 18 and December 13, 1879; vol. 888, s.f., Santiago, August 22, October 24 and November 14, 1879; and January 26, 1880.

commission, as Lindsay had accused in the 1860s. In practice this confirms the daily violation of the principle of bureaucratic exclusivity sanctioned in the norm that established the post.

The redefinition of priorities brought about by the War of the Pacific also impacted on the staff of the institution. In October 1879, Astaburuaga was designated Plenipotentiary Minister in the United States, having to be subrogated by Joaquin Álvarez de Toledo, the first official of the division. Álvarez de Toledo was one of the oldest and most experienced functionaries and had already served as interim director in 1872, when Santiago Lindsay served as Plenipotentiary Minister in Bolivia. Although Astaburuaga's designation meant the departure of an influential bureaucratic intermediary, the institution was in good hands with Álvarez de Toledo. But the context of this second replacement was radically different. The recent abolition of the post of provincial officials, the budgetary constraints, and the delays in the transfer of data from the intendancies, placed him in a controversial position with both the local authorities and the Ministry of Interior.<sup>377</sup>

Álvarez de Toledo's communications with the central government in early 1881 give an account of the complex situation of the statistical institutions in the midst of the war. In the short term, the lack of data had suspended both the edition of the *Anuario* for 1878 and 1879 and the preparation of the *Estadística Agrícola* for the biennium 1879-80. The intendants' responses to Álvarez's requests were discouraging. This was reflected in the case of Atacama, where the investigations were practically adrift. The official who had initially assumed these tasks had been absent due to illness, as was his replacement, who died after a license extended for more than eight months; the shortage of staff, on the other hand, made it impossible to reassign those responsibilities. There was also bad news regarding the availability of documents, as the secretariat did not find any books or forms to resume pending researches. In these conditions, any attempt at updating had to start from scratch and with the referral from the capital of all the basic registration material. The situation of the provinces of Santiago, Ñuble and Arauco, which were also among the most affected by the general disarticulation, was similar. The notorious delay in the regular publications of the Office had redoubled the pressures of the government, to which Álvarez responded in a tone of discomfort similar to that used by Lindsay in his

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<sup>377</sup> AN. MINT., vol. 842, f. 22, doc. 50, October 14, 1879. As a symptom of the prevailing austerity policy, after his appointment Álvarez requested to be paid as if he was Director of the Statistics Office and not as a subrogate employee. The government refused to do so after an extensive exchange of notes that even led the parties to go back to the colonial legislation. In this regard, see notes between Álvarez and the Ministry of Interior between October 7, 1879 and March 12, 1880 in AN. MINT., vol. 888.

interventions of the 1860s. The delay, he argued, had no more explanation than the time the positions of statistical official –“for reasons of economy”– had remained vacant. Although the Office had repeatedly drawn the attention of intendants, departmental governors, and the Minister of Interior, nothing had been done to intervene “on this anomalous state of affairs.”<sup>378</sup>

This was not the first exchange of diagnostics in the midst of the crisis experienced by the Statistics Office. In 1880, then-Minister of Interior Domingo Santa María had been receptive to a similar claim filed by the head of the institution. Such claim portrayed a dramatic regression of the statistical situation. As discussed in previous decades, the lack of direct control of the Office over provincial officials had left the latter at the mercy of the intendants, who had ended up distracting them from their occupations with tasks exclusively for the local administration. This denaturalization had been further deepened by the suppression of the post and the redistribution of its functions among regular officials, which in concrete terms meant legalizing the anomaly forced by the provincial chiefs (who turned into a sort of internal enemies of national statistics). Critiques of the data collection work carried out by the inspectors and sub-delegates abounded too. Their lack of preparation resulted in imperfect reports that required costly corrections. The same had occurred with the rejection that the population continued to manifest with respect to State researches, a behavior that neither the owning-class nor the enlightened citizens were exempt from: if fear and ignorance were the explanations with which the elites rationalized reaction of the popular sectors to statistics, this did not hold for the more advanced, of whom could only be presumed a “complete lack of public spirit.” In support of this diagnosis, the main passages of the claim were transcribed into the ministerial report of 1880, Minister Santa María urged Congress to seriously evaluate a reform of the institution.<sup>379</sup>

In his message, Santa María did not lose sight of the fact that by 1876 Congress had already approved and filed a reform bill. On the grounds that the Office was performing tasks disproportionate to the resources available, a new staff and higher salaries for its members had been proposed. The preliminary discussion in the Senate, however, revealed the limited scope of the initiative, as it excluded substantial changes in the physiognomy of the institution nor

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<sup>378</sup> AN. MINT., Vol. 888, s.f., Santiago, March 21 and April 20, 1881.

<sup>379</sup> *Memoria del Ministerio del Interior presentada al Congreso Nacional por el ministro del ramo en 1880* (Santiago: Imprenta Nacional, 1880), pp. liv-lv.

proposed changes to the data-gathering procedures.<sup>380</sup> For this reason the new invitation extended by the minister to Congress was significant, for the arguments that underpinned his reform project went for the first time beyond the idea that this was a problem of institutional capacity remediable by greater budgetary allocations. Santa María accused a more serious mismatch that could only be covered by a major institutional change.

That was the view that inspired the presentation of a project in late 1882, when Santa María had ceased to be minister to officiate as President of the Republic (he assumed in September 1881). Senator José Francisco Vergara, a member of the Liberal Party as Santa María, promoted the initiative. A particular aspect of the initiative related to the novelty of its framing. Vergara avoided getting entangled in the unpleasant task of identifying culprits and outlining the obstacles already known to everyone. Taking away the pessimistic tone with which the actors involved used to evaluate the scenario, his presentation reinforced the idea that the matter was not confined to the bad faith of the intendants, the lack of preparation of inspectors and sub-delegates, the denaturalization of the position of provincial statistics official or the population resistance to these inquiries. The problem related rather to the operating protocols and staffing of an institution set up 35 years earlier in a radically different political and bureaucratic context than in the early 1880s. It was not an inefficient and inorganic institution, but one that was running behind the economic and social transformations experienced by the country in recent years.

In this logic, Vergara's analysis opened the door to a positive evaluation of everything achieved since the 1840s, when the statistical service was just a mirage. The more than twenty volumes of the *Anuario Estadístico*, the application of three relatively successful population censuses, the progressive internationalization of statistical knowledge, and the valuable services that the division had rendered to the tasks of government constituted achievements whose

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<sup>380</sup> SCN, Senate, session 2 (ordinary), June 5, 1876, pp. 12-14. Notably, during the preliminary discussion of the project one of the most decisive interventions came from Senator Alejandro Reyes, who in the 1860s had served as Minister of Finance exercising a polemic role in the outcome of the Menadier *affair* (Chapter 3, section 3.3.2). During his intervention, he restates the idea, so dear to the bureaucrats linked to the finances of the Republic, of moving the Statistics Office of Santiago to Valparaíso and merging it with the Commercial Statistics Office: "Why now that we are trying to reform [the Statistics Office], do we not begin by consolidating these two offices into one, under a single competent and responsible chief, to give unity to the work of forming the general statistics? Is not commercial statistics a branch of general statistics? This way there will be no reason to have two different offices with their respective number of employees, but there would be only one with fewer employees and less expenses. [...] The data gathered here in Santiago, could not be gathered in Valparaíso? [...] The work would be simpler, because the procedures required by the formation of commercial statistics would complement those required by the formation of that of the other branches" (pp. 12-13).

relevance could not be underestimated under the effect of the pessimism installed by the crisis. It was imperative, however, to expedite the updating of this branch of State action, whose tasks had undoubtedly diversified due to population growth, territorial and administrative transformations, incipient industrial activity and the renewed attention demanded by social problems.<sup>381</sup>

#### 4.2. Producing statistics in the “new Chile”

Indeed, the first Statistics Office was designed in the context prior to the process of territorial expansion led by the Chilean State since the late 1840s.<sup>382</sup> At that time, the territory effectively integrated to State sovereignty did not exceed the 1,000 km of extension counted from the surroundings of the mining district of Copiapó in the north to the Biobío River in the south. Administratively, the space was divided into nine provinces and the population exceeded barely one million. This order began to be transformed after the founding of Punta Arenas (1848), which inaugurated Chilean sovereignty over the Strait of Magellan, the beginning of the colonization of the shores of Lake Llanquihue, linked to the entry into force of the Colonization Act of 1845, and the progressive incursion of civil agents, through the land market, into lands under Mapuche control south of the Biobío river.

During the following decades, the Chilean State began to expand and consolidate its presence in the territories it was incorporating and in turn reorganized the administrative order of its original surface. Thus, when Vergara presented his project, the country was already divided into 17 provinces, to which were added two colonization territories with border administration; the population, on the other hand, had doubled to a total of 2,199,180, according to calculations in 1881.<sup>383</sup> If these transformations were already important, the perception of change was amplified at the close of the first half of the 1880s, when both the War of the Pacific (which meant the extension of the northern border) and the military invasion of Arauco (that secured State control over the lands of the south) ended. This altered the territorial conscience of the contemporaries so much that it was frequent to refer to the birth of a different country. As such Minister Eulogio Altamirano wrote in a letter sent from Tacna to the banker and diplomat

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<sup>381</sup> SCN, Senate, session 1 (ordinary), June 4, 1883, pp. 10-12.

<sup>382</sup> This approach to the territorial and administrative transformations experienced by the Chilean State throughout the nineteenth century summarizes the arguments developed in Andrés Estefane, “Países varios” and “Estado y ordenamiento territorial en Chile, 1810-2016,” in Francisca Rengifo (ed.), *Historia Política de Chile, 1810-2010. Estado y sociedad* (Santiago: Fondo de Cultura Económica, forthcoming).

<sup>383</sup> *AERCh correspondiente a los años 1881-1883. Tomo Vigésimo Tercero*, pp. 3-5.

Augusto Matte in the midst of the War of the Pacific: “Before the steam departs, I reach to embrace you from new Chile. Heck! I think that this Chile we knew small is stretching, stretching and that already the arms do not reach for the length needed to embrace a friend who still is in the old Chile.”<sup>384</sup>

The 1880s were indeed the context in which an important part of the territorial transformations of that “new Chile” reached its administrative formalization. The spaces integrated after the War of the Pacific gave rise to three new provinces in the north: Tacna and Tarapacá, both established in 1884, and Antofagasta in 1888. The culmination of the invasion in Arauco was sealed in turn with the creation of two new units, Malleco and Cautín (1887), which in addition to the provinces of Arauco (1852) and Biobío (1875) fixed the new political physiognomy of the land snatched from the Mapuche population. Also during those years, the Province of O’Higgins (1883), to the south of Santiago, was established. In 1888 Isla de Pascua was annexed and this was the final and probably the most important episode in the configuration of insular Chile.<sup>385</sup> All this process decanted in a new administrative order, with a total of 23 provinces plus the Magallanes territory. It is no coincidence that in this hectic trance it became indispensable to update the Internal Regime Act of 1844; a new version of it was approved in 1885.<sup>386</sup> If this new context already differed from 1882, it was radically alien to that of the 1840s. Here the words of Altamirano make full sense and allow us to understand the challenges that the emergence of a “new Chile” posed to the tasks of the administration in general and those of statistics in particular.

The profound changes in the administrative order imposed the need to help provincial bureaucracies to assimilate these changes, not only at the provincial level, but also as regards the internal limits between sub-delegations and districts, which were also redefined in the first half of the decade. This objective was opportunely covered by the text *Geografía política de Chile* by

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<sup>384</sup> Letter by Eulogio Altamirano to Augusto Matte, Tacna, November 4, 1880, AN, FV, Vol. 826, f. 45, cited by Carmen Mc Evoy, *Guerreros civilizadores. Política, sociedad y cultura durante la Guerra del Pacífico* (Santiago: Ediciones Universidad Diego Portales, 2011), p. 29.

<sup>385</sup> Rolf Foerster, Sonia Montecino and Cristián Moreno, “Documentos relativos a Isla de Pascua, 1864-1888,” in *Documentos sobre Isla de Pascua (1864-1888)* (Santiago: Cámara Chilena de la Construcción: Pontificia Universidad Católica de Chile, Biblioteca Nacional, 2013), pp. ix-lxii. It should be noted that the incorporation of Easter Island into national sovereignty took place only in April 1916, when it was integrated as one of the subdelegations of the Province of Valparaíso. José Ignacio González, Rafael Sagredo, and José Compañ, *La política en el espacio. Atlas histórico de las divisiones político-administrativas de Chile. 1810-1940* (Santiago: Instituto Geográfico Militar: Pontificia Universidad Católica de Chile: DIBAM, 2016), p. 13.

<sup>386</sup> Internal Regime Act, December 22, 1885, Anguita, *op. cit.*, vol. II, pp. 645-650.

the jurist Aníbal Echeverría, which the government ordered to be acquired, printed and distributed in 1888. This work became a kind of reference manual for local officials: in addition to facilitating the precise delimitation of each administrative unit, it provided a legal account of the country's territorial trajectory by laying the rules that had created provinces, departments, sub-delegations and districts from 1811 onwards.<sup>387</sup> The territorial upheaval was so profound that in the same year a significant reform was approved to the Political Constitution of 1833, the repeal of Article 1, which for more than five decades had established the limits of the Republic and now, in light of the changes in national sovereignty, had become obsolete.<sup>388</sup>

Not surprisingly, the State's administrative grid was also subject to revision during this period. The Santa María government (1881-1886) not only pursued the strengthening of the civil bureaucracy with the enactment of secular laws, but also promoted plans of reform in three fundamental areas for political and territorial organization: elections, municipalities and internal regime. All of them were presented as an unavoidable demand after the progress experienced by the Republic, noticeable not only in material terms, but also ideologically. In that review, the entire administrative architecture established in the first half of the century began to be labeled "out of date" and at odds with "the liberal creed and the practices of a more advanced regular government."<sup>389</sup> A similar objective was fulfilled in another of the crucial reforms of the decade, the ministerial reorganization of 1887, which among other measures involved the transition of four to seven ministries.<sup>390</sup> It is in this context of deep territorial and institutional transformations that the aforementioned reform project presented by José Francisco Vergara in 1882 should be located.<sup>391</sup>

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<sup>387</sup> Aníbal Echeverría y Reyes, *Geografía política de Chile, o sea recopilación de leyes y decretos vigentes sobre creación, límite y nombre de las provincias, departamentos, subdelegaciones y distritos de la República*, 2 vols. (Santiago: Imprenta Nacional, 1888), vol. I, pp. v-ix. Due to the relevance of the subject and its importance to the duties of various State agencies, the commission that evaluated Echeverría's work was formed, among other officials, by the head of the Statistics Office and the chief of the Geographic Section.

<sup>388</sup> The repealed article stated: "The territory of Chile extends from the Atacama Desert to Cape Horn, and from the Andes to the Pacific, including the Chiloé Archipelago, all the adjacent islands, and those of Juan Fernández." *Ley que ratifica las proposiciones de reforma constitucional a que hace referencia, Art. 1, August 9, 1888, Anguita, op. cit.*, vol. III, pp. 78-79.

<sup>389</sup> These terms were used by then-Senator José Manuel Balmaceda in the presentation of the draft of the Internal Regime Act proposed by the Santa María government, September 14, 1882. SCN, Senate, session 10 (extraordinary), December 14, 1885, p. 133.

<sup>390</sup> Diego Barría, "Continuista o rupturista, radical o sencillísima: la reorganización de ministerios de 1887 y su discusión político-administrativa," *Historia* 41, no. 1 (2008): 5-42.

<sup>391</sup> As part of the search for references for reforming the service, in 1884 the government also asked Nemesio Vicuña to move abroad to study the organization of statistical offices in Europe and the United States. So far I have

Senator Vergara's proposal aimed to redefine the basic architecture of the Statistics Office and, therefore, took distance from the normative minutiae present in the law of 1847. It was a much simpler law that modified the officials' roster –amplifying it and giving them higher remuneration– and modified the title of the service to General Office of Statistics of the Republic, officializing its preeminence against the departments responsible for sectorial statistics. Everything concerning the operational ground, that is, operating protocols, powers and duties of the officials stationed in Santiago and provinces, as well as the responsibilities of the authorities committed with the referral of data, would be covered later by an ordinance dictated by the President of the Republic after the approval of the law.

Beyond its general tone, this new project brought about important changes with respect to the law of 1847. In the first place, all references to the National Archive, an institution that had concentrated several of the articles of the original norm, disappeared. For the same reason, the proposed officials' roster removed the first and second archivist positions, considered expendable after the gradual abandonment of these functions in the daily work of the division.<sup>392</sup> Secondly, the maintenance of the Section of Geography of the Statistics Office, founded only six years earlier, was not contemplated. Both omissions reflected substantial alterations to the existing organizational chart.

Equally relevant was the expansion of the roster of officials and the consequent increase in the annual budget. Until then, the Santiago Statistics Office had nine officials: the director, the functionary in charge of the Section of Geography, a first official, two archivists (first and second), three officials, and a doorman. Its salaries and office utilities demanded an annual expense of \$12,000. To this must be added \$14,600 corresponding to the salaries of the 17 provincial statisticians. Thus, the division required a total budget of \$26,600 per annum to cover

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no news on the report Vicuña should have submitted to the Ministry of Interior. AN. MINT., vol. 842, ff. 110-111, doc. 18 of March 29, 1884.

<sup>392</sup> The idea of a central archive, as planned in 1847, began to fade in 1861 when the Manuscripts Section of the National Library was created and put under the supervision of the Ministry of Justice, Worship and Public Instruction. This institution sheltered colonial documentation and paperwork of the ministries of Interior and War until 1830, functioning as a historical archive. Fractioning heightened in 1875 after the creation of the judicial archives of Santiago and Valparaíso, which went on to claim the files of completed judgments, protocols of notaries and copy-books of sentences. In this context, the original affiliation between the National Archive and the Statistics Office was no longer meaningful and could not even be reinterpreted in light of the functions of a government archive, which none of the institutions mentioned fulfilled.



the salaries of its 26 staff members.<sup>393</sup> Vergara's project increased the staff residing in the capital to 13 employees (due to the multiplication of the number of first and second officials) and contemplated higher salaries for all staff. In this new scheme, the Office had 30 employees (13 in Santiago, 17 in the provinces) and required an annual expenditure of \$42,000, a rise of 63 percent over the previous budget. A significant detail: in the new expenditure structure, only the maintenance of the Office in Santiago would consume the budget that to date maintained the entire national statistical system.

This exceptional budget increase, which contrasts with the calls for austerity in the previous decade in the midst of the economic crisis, can only be explained by the progressive increase in tax revenues since the beginning of the War of the Pacific. From 1874-1879 these were around \$31,000,000, in the following six years (1880-1885) this figure rose above \$59,000,000, peaking at \$ 72 million in 1883. This fluctuation coincides with the explosive preponderance of mining taxation, basically of saltpeter, in the total fiscal revenues of the same period. According to historian Diego Barría's calculations, since 1880 this participation crosses the 20 percent barrier, with an average of 31.45 percent for 1880-1885, a different situation than that of the previous six years (1874-1879), when that average had reached a meager 4.5 percent.<sup>394</sup>

#### 4.3. Statistics, provincial power and the Balmaceda government: anatomy of a (failed) structural reform

José Francisco Vergara's proposal remained archived until 1888, when the Commission of Government of the Senate rescued it on the arrival of a new project of statistical reform presented that same year by the Balmaceda administration. The diagnosis and certain budgetary equivalences were perhaps the only coincidences between these two initiatives, because in all matters related to institutional physiognomy, and particularly to the articulation between the

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<sup>393</sup> For the calculation of the annual budget of a normal year I took as basis the budget laws of the years 1878 and 1882. *Ley de presupuestos de los gastos generales de la administración pública de Chile para el año 1878* (Santiago: Imprenta Nacional, 1878), pp. 7-15 and 40; and *Ley de presupuestos de los gastos generales de la administración pública de Chile para el año 1882* (Santiago: Imprenta Nacional, 1882), pp. 7-18 and 50.

<sup>394</sup> Diego Barría, "La autonomía estatal y la clase dominante en el siglo XIX chileno. La Guerra Civil de 1891," Doctoral Thesis, Leiden University (2013), pp. 246-247. His estimates of tax revenues follow the work by Markos Mamalakis, *Historical Statistics of Chile. Volume 6: Government Services and Public Sector and a Theory of Services* (Westport: Greenwood Press, 1989), pp. 225-226; the information of mining participation are based on José Jofré, Rolf Lüders and Gert Wagner, "Economía chilena 1810-1995: cuentas fiscales," Working Paper 188, Instituto de Economía, Pontificia Universidad Católica de Chile (Santiago: 2000), pp. 207-208.

central office and the provinces, Balmaceda's proposal marked a major turning point. The most striking change concerned the establishment of two relatively new institutions for the local statistical trajectory: a Statistical Council and the Provincial and Departmental Statistical Boards.<sup>395</sup>

The Statistical Council was a collegiate body thought to be a sort of national superintendence. In that role, it subordinated both the Central Statistics Office (the name suggested by Vergara) and the Commercial Statistics Office of Valparaíso, whose budget depended on the Ministry of Finance. The Council was chaired by the Minister of Interior and was made up of the Director of the Statistics Office (as Vice-President of the Council); the sub-director of the same organization; the Director of General Accounting; the Dean of the Faculty of Medicine of the University of Chile; an inspector of the Civil Registry designated by the President of the Republic; a representative of the National Society of Agriculture (SNA in Spanish, 1838), another one from the National Mining Society (SONAMI in Spanish, 1883) and a third from the Society of Industrial Development (SOFOFA in Spanish, 1883), at the suggestion of the directory of each business organization.<sup>396</sup>

Although the establishment of a council like this was an unprecedented issue for local statistics, it was a familiar measure in the bureaucratic context of the 1880s. Since that decade, this type of initiative began to multiply within the public administration, whether to guide and supervise the functioning of strategic State agencies (bringing together sectorial experts with State representatives and other organizations) or acting as consultative bodies, offering advice on specific matters. Councils of this type operated in areas as diverse as railroads, health, education and public works, and it was common for its membership to include representatives of the three business guilds mentioned above, as happened with the Council of Agricultural and Industrial Education, with figures from SNA and SOFOFA.<sup>397</sup> In line with the growing influence of the business associations in defining government policies, the councils came to institutionalize this

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<sup>395</sup> SCN, Senate, session 16 (ordinary), July 16, 1888, p. 162-164.

<sup>396</sup> This is the composition approved by the Senate in June 1889 during the first discussion of the project and does not coincide with the first version of the initiative, where the sub-director of the Statistics Office had not been considered and instead of the Dean of the Faculty of Medicine it considered a "proto-physician." To understand the government's view on the new statistical institutionality, it is more pertinent to review the bill approved by the Senate, which included the series of modifications promoted by the Minister of Interior Marcial Lastarria. In this regard, see SCN, Chamber of Deputies, session 6 (ordinary), June 25, 1889, pp. 75-76. In what follows I refer to the bill approved by the Senate.

<sup>397</sup> Barría, "La autonomía estatal," pp. 171-175.

incidence, which in the case of statistics had already manifested itself in the 1870s in relation to the interventions of the SNA regarding agricultural research.

The case of the Departmental and Provincial Statistics Boards requires a long-term analysis. In Balmaceda's project, these boards would assume the functions of the national network of provincial officials, establishing themselves as the new bodies in charge of collecting and processing the data that each administrative unit should periodically send to the central office. Its composition tended to guarantee the presence of municipal authorities and representatives of civil society, although always subordinated to the will of the President of the Republic. Departmental Boards were chaired by the departmental governor, accompanied by a councilor or neighbor appointed by the municipality, the main city's physician (if any) and another neighbor chosen by the President of the Republic at the suggestion of the Statistical Council; the Provincial Boards, presided over by the Intendant, had a similar composition, although the number of councilors or neighbors of municipal designation rose to two, while those of presidential designation rose to three. These institutions were not a novelty in the institutional trajectory of statistics. During the years of provisional operation of the Office (1843-1847), territorial work rested on departmental commissions that had a similar composition and performed equivalent tasks; moreover, commissions of this type were also organized for carrying out population censuses.<sup>398</sup>

As indicated, Balmaceda's proposal intended that these commissions should assume at the local level the work that had been carried out by provincial statistics officials to date, but whose legitimacy had deteriorated due to the delays and failures in their tasks, which eventually led to the abolition of the post in 1879. One of the most revealing aspects of the government's project was that it did not completely ignore the articulation functions performed by these specialized officials. Although the Departmental and Provincial Boards were responsible for coordinating and carrying out statistical investigations, the concrete work of systematizing and dispatching data rested on the regular officials of each governorate and on the first officers of each intendency. In the project they appeared invested as secretaries of their respective boards in exchange for annual bonuses ranging from \$200 to \$ 300 for departmental officials and between \$300 and \$500 for provincial ones. Through this solution, the government ignored the thesis of maintaining officials specialized in the production of statistics; however it kept their functions,

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<sup>398</sup> See Chapter 2, section 2.2.

which were to be covered by the regular bureaucracy and financed through a differentiated and less expensive compensation system. While insisting on the scheme of 1879 (ordering the regular staff to assume the work of the exclusive officials) a greater degree of articulation with the local space was planned this time, linking the secretaries with the Departmental and Provincial Statistical Boards.

To understand this measure it is necessary to review the trajectory of provincial statistics officials in the previous decade. Although the budgetary contraction imposed by the economic crisis of the 1870s and the beginning of the War of the Pacific forced the abolition of this post without major setbacks, in the following months several provinces reversed support for the measure and began to demand reinstating the position. At first the government dismissed these requirements and insisted on its thesis: these functions could and should be assumed by an official of the provincial bureaucracy and would be remunerated by gratification. But this was not working, partly because of the administrative overload in the provinces. In this scenario, the paralysis only accentuated the service's crisis. Gradually, the Ministry of Interior was opened to casuistic evaluations that ended up giving way to a dual regime, with provinces where the statistics official was replaced and others where the gratification regime was maintained.<sup>399</sup> That formula remained active for at least the duration of the War of the Pacific and by the end of 1883 full-time officers had been fully restored. This is indicated in the annual budget items and the provincial creation laws that emerged in the 1880s, where the post of statistics official invariably appeared in the provincial administrative choreography.<sup>400</sup> They also played an important role in the preparation of the 1885 census, conducting training programs in their respective jurisdictions.<sup>401</sup> Of course, such restitution was due more to an institutional inertia than to

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<sup>399</sup> AN. MINT., Vol. 842, ff. 24, 27-28, 32-35, 37, 43, 51, 56-58, 68 and 73, docs. of December 13, 1879 (no. 55); January 28 (no. 3), July 2 (no. 21), August 4, 13 and 28 (nos. 22, 23 and 24), September 16 (no. 26), October 16 (no. 27) and November 16 (no. 30), 1880; May 5 (no. 9) and August 17 (no. 51), 1881; February 10 (no. 3), March 10 and 20 (nos. 5 y 8), 1882; February 2 and 7 (nos. 3 and 4) and April 25 (no. 13), 1883.

<sup>400</sup> See Act of Creation of the Province of O'Higgins, December 10, 1883, Art. 5; Act of Creation of the Province of Tarapacá, October 31, 1884, Art. 4; Act of Creation of the Province of Tacna, October 31, 1884, Art. 7; Act of Creation of the Provinces of Malleco and Cautín, March 16, 1887, Arts. 4 and 7; Act of Creation of the Province of Antofagasta, July 12, 1888, Art. 8, in Anguita, *op. cit.*, vol. II, p. 564, 628 and 630; vol. III, pp. 8, 9 and 75, respectively. As with the rest of the provincial bureaucratic roster and the amounts allocated for operating expenses, the statistics officials of the new provinces received different wages according to their territorial location: O'Higgins, Malleco and Cautín, \$ 800 a year; Tacna, \$ 1,800; Antofagasta, \$ 2,000; Tarapacá, \$ 2,400.

<sup>401</sup> AN. MINT., vol. 1,308, s.f., Valdivia, September 28, 1885.

adjustments in management, because the complaints of non-observance of their legal duties continued to circulate.<sup>402</sup>

It is no coincidence that in the discussion of the bill in the Senate that topic became one of the most contentious. Senators Manuel Recabarren and Domingo Toro, both of the Liberal Party, strongly defended the idea that the project restore the post of provincial statisticians or designate an equivalent figure for each of the boards. Their arguments differed, but they coincided in doubting the ability of the regular bureaucratic staff and the statistics boards to efficiently assume tasks that required exclusive concentration and a high degree of specialization. Recabarren's main concern was that the proposed formula merely reproduced the conditions of bureaucratic saturation that had paralyzed the service: to ask that the officials of intendancies and governorates were in parallel the secretaries of the boards meant to expose them to levels of exigency that in the long run would deteriorate the performance of both functions. In the opinion of the congressman this had to do with the government's tendency to dismiss the complexity of the tasks, because unlike the phrasing of the project, these secretaries would not act as "simple clerks," but would be directly involved in the delicate work of data gathering and systematization of results, and also keeping records of board meetings and other functions of similar load. Toro, for his part, distrusted the organizational chart as a whole. First, the voluntary and gratuitous nature of the work of the local commissions, which therefore depended on the goodwill of its members (in particular the designated neighbors) and would remain exempt from the legal counterclaim protocols in case of breach. Second, he doubted the actual time clerks could devote to statistical tasks, especially considering that the bonus assigned did not offset the effort these activities normally imposed. The project not only economized employees, he said in his speech, it also paid them badly and this hindered the possibility of setting up a good statistical service.<sup>403</sup>

None of these objections destabilized the position of the government, since these critiques were foreseen. Although the argument of a possible bureaucratic saturation of the provincial administrations was reasonable, the alternative defended by Recabarren and Toro did not offer better guarantees; indeed it offered none, for it had been the inefficiency of the network of provincial statistics official which had led to the provisional suppression of the post in the

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<sup>402</sup> AN. MINT., vol. 842, ff. 92-93 and 95-97, docs. 69, 76 and 78 of August 31 and October 11 and 25, 1883; also, vol. 1,308, s.f., Santiago, May 26, and Angol, June 11, 1885.

<sup>403</sup> SCN, Senate, sessions 6 and 7 (ordinary), June 14 and 17, 1889, pp. 55-56 and 60-64 respectively.

reform of 1879. Further still, if the provincial administrative routine had ended up dragging these exclusive officials –remember that this was the explanation for the blurring of its profile– insisting on defending a position that had failed to safeguard its limits or fulfill its mission was pointless. On the basis of this diagnosis the Minister of Interior Marcial Lastarria suggested to the Senate to try a new model. It is interesting that the representative of the Executive insisted that the project was basically a mere “test” and explicitly acknowledged that a vote of confidence was being requested in favor of an initiative of uncertain results. Certainly, it was not a blind vote of confidence, since the government had another (more gravitating) argument to support the bet: costs. In a timely manner, Lastarria indicated that the government's proposal represented annual savings of more than 60 percent compared to the scheme with provincials officials (\$21,850 versus \$ 66,940), a difference that was narrowing but still important, when considering the total cost of the statistical system (\$52,850 versus \$97,000).<sup>404</sup>

Although Recabarren and Toro ended up approving the initiative, the truth is that they had only a narrow margin to reverse this point of it. Their interventions could only have a preventive effect, noting the blind spots that could hamper the implementation of the new system, because the legal space to reinstall the post of provincial statistics officials had been closed in January 1889. On that date, Congress passed a law that fixed the salaries and attributions of intendants and departmental governors and determined the composition of the provincial secretariats. Interestingly, provincial statistics officials were not considered in the new physiognomy of the local bureaucracies. Moreover, article 6 stated that the first official of the intendancies would be provisionally in charge of “collecting and studying the statistical data of the province,” relieving the questioned officials of the tasks assigned in the law of 1855.<sup>405</sup> By means of this norm the government had not only resolved the long debate regarding the destiny of this position, but had also anticipated any chance of replacement during the discussion of the reform of the statistical service.

Beyond what this solution reflects regarding the transversality of the statistical problem – the approval of a different norm was what obliquely solved a long-standing tension within the service– it is not convenient to ignore the long-term effects of this discussion. What began to be debated since 1879 was not only the local responsibilities in the data gathering procedures that

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<sup>404</sup> SCN, Senate, session 7 (ordinary), June 17, 1889, pp. 60-61

<sup>405</sup> Law on Salaries and Assignments of Personnel of Intendances and Departmental Governorates, January 19, 1889, Anguita, op. cit., vol. III, pp. 99-101.

made statistical research possible, but also the definition of an efficient formula for articulating the local realities and the central institutions in the process of production of State knowledge. Despite the doubts expressed by some parliamentarians, what the government's project was proposing was a broad-ranging reform to the institution and the entire statistical service. While on one side it restored the influence of the local choreographies of power, on the other it converted the secretaries of intendancies and departmental governorates into communicating vessels between the periphery and the center. This implied taking distance from the logic implemented in the mid-nineteenth century that had resulted in the establishment of statistics officials seen as specialized agents and in connection with the central institution. Given the failure of that strategy, it was decided to return to a rather decentralized scheme, similar to the one tried in the 1840s, particularly during the provisional years of the Office, and perhaps also to that of the second half 1820s, when the production of statistics was entrusted to the Provincial Assemblies. In all these cases, local authorities, neighbors and municipal corporations appear as actively responsible for the information-gathering machinery.

But such a return was not only related to long-term conflicts within the statistical service, but also to recent political discussions. The role that the statistical boards guaranteed to municipal authorities and their influential neighbors should be interpreted in close connection with the issue of municipal autonomy, which had become relevant after the approval of the reform to the municipalities of 1887. This issue had appeared in 1867, when a group of doctrinaire Liberal militants set out to review the mechanisms through which the Executive subordinated these corporations, but only in the 1880s the political conflict reinstalled the initiative. A municipal reform in 1887 was effective in blocking several of the arteries through which the President of the Republic controlled municipal policy, entrusting to the first mayor, for example, responsibilities up to that time concentrated in departmental governors and sub-delegates. However, this reassignment of functions was not accompanied by real autonomy in terms of execution and resources, limiting the possibility that the reform would translate into effective local power.<sup>406</sup>

Due to the limited scope of the changes, the communal autonomy agenda remained active and became a politically contentious issue as the dispute between the Balmaceda government

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<sup>406</sup> Law on Organization and Attribution of Municipalities, September 12, 1887, Anguita, *op. cit.*, vol. III, pp. 39-47, especially Title IV. For an evaluation of the scope of the norm, Karina Arias, "Revisión de las estructuras político-administrativas territoriales en el Chile del siglo XIX," *UNIVERSUM* 25, Vol. 1 (2010): 52-53.

and the opposition, which resulted in the Civil War of 1891, turned more acute. As a way of taking control of the conflict, the Balmaceda inaugurated the Legislature of 1890 with a broad project of constitutional reform that included a complete update of territorial government. The project aimed at the consecration of a provincial autonomy regime through the establishment of provincial assemblies, autonomous municipalities and communal boards. The key to this new institutional circuit was the strengthening of civic participation, of course in voting –to elect representatives in assemblies, for example– but also in the administration of local institutions. “The effectiveness of the autonomous provincial government,” indicated Balmaceda, “also requires men capable of governing themselves.”<sup>407</sup> In this context the installation of the provincial and departmental boards must be understood, acting as the new spaces for the collection of statistical information. While this measure opened the possibility of solving a concrete question, the need of replacing an obsolete model, it also marked a significant point in the closed political struggle between the government and the opposition.

As in the proposal of José Francisco Vergara of 1882, the statistical project of Balmaceda dispensed with the National Archive, founded as an institution annexed to the Statistics Office. If this affiliation, as I explained before, was no longer meaningful at the beginning of the 1880s, the distance widened after the promulgation of the Reorganization of Ministries Act of 1887, under whose frame the General Archive of Government was instituted.<sup>408</sup> The government proposal also ended by discarding the continuity of the Section of Geography of the Statistics Office. The discussion in the Senate revealed the reasons for the measure. One of the peculiarities of this section was that it depended on a single person that officiated as chief and executor, and his remuneration qualified loosely as one of the highest of the staff (at the time

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<sup>407</sup> José Manuel Balmaceda, “Mensaje presidencial de 1890,” in Rafael Sagredo and Eduardo Devés (comps.), *Discursos de José Manuel Balmaceda. Iconografía* (Santiago: DIBAM, 1991-1992), Vol. II, pp. 353-355.

<sup>408</sup> The creation of the General Archive of Government in 1887 came to cover the functions of an administrative archive, preserving recent official documentation. Thus, the archival institutionality acquired the tricephalic physiognomy it maintained until the beginning of the 20th century, with an historical, a judicial, and an administrative branch. These three branches were assembled only in the 1920s. In 1925, the National Historical Archive was established, placing under the same roof the colonial and republican documentation of the period 1810-1865. Two years later, the merging of the national historical collection and that of the general government was decreed under the name of National Archive. This institution was in 1929 integrated into the Directorate of Libraries, Archives and Museums, under the Ministry of Public Education, which among other modifications decreed the transfer to the National Archives of copies of the sentences lodged in the Courts of Justice. For a long-term reflection on the trajectory of the national archives, see Paulina Bravo and Andrés Estefane, “‘Vandalismo activo y vandalismo de inercia’. Notas sobre la problemática relación entre el Estado chileno y sus archivos (1847-1929).” This paper was presented at the seminar “Procesos de construcción estatal en Chile y Perú, siglo XIX,” Instituto de Historia, Pontificia Universidad Católica de Chile and Centro de Investigación y Documentación, Universidad Finis Terrae, May 25, 2017.



of its creation, the head of the section received \$4,000 annually, 60 percent more than the salary of the director of the Statistics Office). The name of this fortunate official was familiar to the local scientific environment: Amado Pissis. In fact, and beyond the declarations that surrounded its establishment, the Section of Geography was nothing more than an *ad-hoc* formula to secure a permanent income for the scientist, and therefore was far from constituting an organic unit for the statistical service. The death of Pissis in early 1889 made insisting on fiction unnecessary, and this was stated by the very Minister of Interior in his intervention in the Senate, advising the removal of the post.<sup>409</sup>

The creation of sections within the Statistics Office was one of the novel aspects of the Balmaceda project. There were some precedents of this. The Section of Geography, despite its anomalous nature, was one of them. Another one was an initiative that did not materialize and in which Balmaceda himself played an important role while serving as Minister of Interior of the Santa María government: the establishment of the Civil Registry as a section of the Statistics Office. This was discussed in 1884 on the grounds that the proximity of the civil documents would facilitate the researches of the Office, although in substance the proposal aimed to ensure that the new service was subordinated to the Executive since the Statistics Office depended on the Ministry of Interior. The opposition, of course, sought to avoid such subordination, which would allow the Executive to monopolize the appointment of civil servants and, by extension, to influence the definition of the limits of civilian circumscriptions, an issue of evident electoral implications. What is interesting is that the proposal virtually involved installing one office within another.<sup>410</sup> Even though the idea was discarded, it deserves mention because it demonstrates that the process of secularization of demographic records not only caused conflicts between the State and the Catholic Church, but also opened revealing debates within the civilian institutions, generating ministerial tensions and administrative problems that in a few cases tended to be solved against the bureaucratization process to which the State was committed and of which the Statistics Office was part.<sup>411</sup>

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<sup>409</sup> SCN, Senate, session 6 (ordinary), June 14, 1889, pp. 53-54.

<sup>410</sup> This is explained because the project to erect the Civil Registry as a section of the Statistics Office entailed the appointment of a chief, two first officers, two secondary officers and a doorman, that is, a relatively autonomous bureaucracy. Moreover, echoing the case of the chief of the Section of Geography, it was proposed that the highest authority of the Civil Registry received an annual remuneration higher than that of the head of the institution of which it would be part (the Statistics Office).

<sup>411</sup> For a bureaucratic approach to the creation of the Civil Registry service, see Barría, “La autonomía estatal,” pp. 175-182.

In the case of the statistical reform project, the establishment of sections was presented as an organic response to the increasingly complex surveys, thus marking an overcoming of the reactive and improvised logic with which this issue had been addressed. During the discussion, and at the suggestion of the director of the Statistics Office, Minister Lastarria proposed that the investigations be divided into three sections, each under the leadership of a chief and the assistance of three officers of varying rank. The first section would be in charge of all the news related to the territory of the Republic, ordered along physical and administrative themes; while physics pointed to the description of climatic, orographic, and hydrological aspects, the administrative one studied State intervention over space, i.e., the political-administrative division, communication system (mail and telegraph) and transport (railways and roads). The second section would be responsible for economic research, specifically mining, agriculture and industrial items, as well as news related to foreign trade. The third and last would cover regular statistical topics, from demography and medical statistics to charity, instruction, justice, and criminality. This was, of course, a gross delimitation, since the Statistical Council had the last word on the thematic coverage of each section.<sup>412</sup>

Also related to the sections, another topic of discussion in the Senate was the status of the Commercial Statistics Office of Valparaíso, whose composition and links with the Office in Santiago were regulated in the final section of the project. As indicated in previous chapters, due to its high degree of specialization and the rhythm of its production times, commercial statistics was one of the first to develop relatively independently, exhibiting degrees of efficiency and regularity that put it above general statistics.<sup>413</sup> However, during the second half of the nineteenth century this status was frequently questioned, for although it seemed logical that commercial statistics remained a section of the Customs House, thus subordinated to the Ministry of Finance, it was no less true that its tasks were in close contact with the Central Office—which required its reports for the preparation of the *Anuario Estadístico*, among other matters—and that it was therefore necessary to define some degree of dependence on the Ministry of Interior, which commanded that service. In sum, in the late 1880s was discussed again whether commercial statistics remained part of the Customs House or integrated as a section of the eventually reformed Statistics Office.

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<sup>412</sup> SCN, Senate, session 6 (ordinary), June 14, 1889, pp. 54-55.

<sup>413</sup> See Chapter 2, Section 2.5 and Chapter 3, Section 3.3.2.

This discussion had been updated as part of the debate of another project, the one of the staff and salaries of the employees of the customs of the Republic, a payroll on which both the statistics officials of the Custom House Office and the employees of the other 14 customs along the country appeared. Apart from the obvious fact that this institution moved in a gray area, the project of statistical reform further exacerbated confusion by interfering in the definition of the staff and salaries of an office that depended on another budget. Finally, the idea of maintaining its semi-autonomous condition –dependent on the Ministry of Finance in budgetary terms but politically responsible before the Ministry of Interior– triumphed, although stating that this norm fixed its staff and remunerations, mainly because of the risk that the discussion of the customs law extended more than expected or postponed indefinitely a salary adjustment long awaited by the respective officials. Moreover, this service also had limited resources to perform its tasks. Apart from the expansion of commercial activities, the work overload had been recharged after the incorporation of the ports of the provinces of Tarapacá and Antofagasta as a result of the War of the Pacific. In this regard, Finance Minister Juan de Dios Vial took advantage of the discussion in particular to introduce a slight modification in the roster to divide it into two sections, one dedicated to domestic trade and another to foreign trade.<sup>414</sup>

The version of the bill approved by the Senate, with the changes analyzed in the preceding paragraphs, passed to the Chamber of Deputies in June 1889, where it was submitted to a new revision by the Congress' Government Commission. The Commission issued its report in November that year, suggesting the approval without modification.<sup>415</sup> The panorama seemed favorable. However, the profound crisis into which the political system moved from 1890, leading to Civil War the following year, postponed indefinitely the discussion of the initiative, which remained filed, as I will show, for almost two decades. This was the fate of one of the most serious efforts to modify the statistical institutional system set up in the mid-nineteenth century. Unlike other initiatives, it was aimed to intervene as much on the physiognomy of the Statistics Office as on its mechanisms of articulation with the provincial bureaucracy. Due to the scope of its aims, this project made possible to revise and reassess both the main practical obstacles faced by the service during its long history and the adjustment demanded by the profound transformations experienced by the country as a result of its modernization.

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<sup>414</sup> SCN, Senate, sessions 6 and 7 (ordinary), June 14 and 17, 1889, pp. 56-57 and 63-64, respectively.

<sup>415</sup> SCN, Chamber of Deputies, session 6 (ordinary) and session 15 (extraordinary), June 25 and November 27, 1889, pp. 75-76 y 237, respectively.

The revision of this and the previous reform projects that circulated in the 1880s should not blind us to the fact that the Statistics Office continued operating as it had since the 1860s, dealing with the problems already described, but also consolidating some advances. Although the critiques that emerged in the discussion of these projects could generate the impression of a widespread marasmus, the Office could still maintain minimum levels of functionality, so it could fulfill some basic tasks despite the setbacks. To this analysis is the following section dedicated.

#### 4.4. Symptoms of a terminal crisis? The 1880s, the Civil War of 1891 and the Closing of the Statistical Service

In parallel to the discussion of the projects of José Francisco Vergara (1882) and the government of José Manuel Balmaceda (1888), the Statistics Office continued fulfilling the routine tasks inherited from its consolidation stage. It should be remembered that at least during the first half of the 1880s, a significant part of the resources and bureaucratic energies tended to concentrate on the closing of the two armed conflicts the Chilean State was waging at the time, the War of the Pacific in the north and the final phase of the occupation of the Araucanía region in the south. In this context, the maintenance of certain minimum levels of production should be considered as an attenuation of the gloomy panorama drawn by the rhetoric of both reforms. Although the service had long-standing operational maladjustments, this had in no way resulted in a complete shutdown of statistics, at least not during the critical 1880s.

The *Anuario Estadístico*, the main scientific product of the Office, continued to appear with relative regularity, albeit with important editorial changes due to the pragmatic character Francisco Astaburuaga impressed to the publication during his term. One of the most significant transformations concerned the previously detailed introductions to each volume which now lost extension and substance. If with Lindsay these texts had been characterized by a strong analytical imprint, with historical reflection playing a relevant role, with Astaburuaga they turned into descriptive summaries that said nothing more than what was registered in the synthesis charts. The comparative exercises became exceptional and there was practically no section in which the narrative leaning was not displaced by the conciseness of the numerical language. Certainly, this move can be read as an oblique expression of bureaucratization (also discernible in the impersonality of the documents produced by an administrative unit), but even so the abrupt

disappearance of the authorial tone that the previous administration imposed on the statistical discourse was striking. Regarding periodicity, in the years of greater war activity the *Anuario* fulfilled its calendar: during 1879-1885 five volumes of general statistics and two of agricultural statistics were published, covering all the branches of the regular index for the period 1877-1883. The situation changed, however, towards the second half of the decade. With volume 23 – published in two parts between 1884 and 1885– the periodicity maintained for 25 years reached its end.<sup>416</sup> The following volume, with the statistics of the period 1883-85, was published only in 1890.<sup>417</sup>

But the effects of this interruption were attenuated by the appearance of a new publication, also prepared by the Statistics Office, which circulated regularly until well into the twentieth century: the *Sinopsis estadística y geográfica de Chile*. First published in 1879, this book offered a synthesis of the various investigations carried out by the service. It was, therefore, a portable and user-friendly version of the information collected in the *Anuario*, achieving wide repercussion between the circles dedicated to commerce. In fact, the first numbers appeared in bilingual format (Spanish-English), and there also were some French editions.<sup>418</sup> Beyond its utility, this publication was relevant because it was the only text generated by the Office that maintained regularity in the transition from the last quarter of the nineteenth century to the twentieth, especially in the second half of the 1880s, when the publication of the *Anuario* was interrupted.<sup>419</sup> It also occupied an important place among the various geographical publications that forged a “geographic idea” of the country just at the time when the deepest spatial transformations of the nineteenth century were taking place.<sup>420</sup>

Another of the activities that the Office satisfactorily fulfilled was the organization of the population census of November 1885. The chronicle of the preparations does not register obstacles or setbacks other than those faced in previous enumerations. On the contrary, the preventive measures taken by some authorities could even qualify as signs of certain

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<sup>416</sup> *AERCh correspondiente a los años 1881-1883. Tomo XXIII. Primera Parte* (Santiago: Imprenta Nacional, 1884) and *Segunda Parte* (Santiago: Imprenta Nacional, 1885).

<sup>417</sup> *AERCh correspondiente a los años 1883-1885. Tomo XXIV* (Valparaíso: Imprenta de “La Patria,” 1890).

<sup>418</sup> Although the year 1879 is generally indicated as the starting point of this publication, it had a previous and less elaborated version, the *Sinopsis estadística de Chile*, already circulating in 1876.

<sup>419</sup> Regarding the details of its printing and circulation, AN. MINT., vol. 842, ff. 277, 305, 322, 346 and 375-376 August 10, 1888 (no. 60); April 5, 1889 (no. 26); August 22, 1889 (no. 18); March 8, 1890 (no. 21) and October 20, 1890 (no. 84). Importantly, by 1890 a functionary was specially charged with this task receiving an annual bonus of \$600.

<sup>420</sup> Rafael Sagredo, “La ‘idea’ geográfica de Chile en el siglo XIX,” *Mapocho* 44 (1998): 146-149.

“institutional learning.” Anticipating the difficulties to register the most isolated residents of the rural sub-delegations and taking into account the impossibility of entrusting these tasks to the sub-delegates and inspectors (when they existed) due to widespread illiteracy among them, governors of localities as different as Cañete, Petorca and Ovalle agreed to ask the government for the early release of resources to offer salaries to the neighbors of the head cities to integrate the census commissions.<sup>421</sup> Neither were preoccupying news on the uniformity of the process nor the coverage of the census (or nothing beyond the routine accusations of subtraction of forms and reports of omission due to topographical obstacles or ignorance of the territory by the commissioners).<sup>422</sup> Not even the delay in the publication of results could be read as a symptom of mismatches. Part of it had to do with the fact that the Office received the summaries and forms of all provinces as recently as October 1886, almost a year after the enumeration, which in turn was a result of operational differentials in terms of speed and coverage between the different administrative units. The incorporation of new territories –Tarapacá, Antofagasta and Tacna– was mentioned as another factor of delay, as well as the greater precision with which the age classification of the population was carried out, matching the criteria applied in the last censuses of Europe and the United States. All this explains that during this period of data processing the Office hired 18 auxiliary staff. The first report with a total national population disaggregated by provinces was presented by Astaburuaga in his annual report of 1887, but the work continued during 1888 and even the first months of 1889, when the first printed volume of the census began circulating.<sup>423</sup>

Astaburuaga could not complete the entire process of the 1885 census. In March 1888, he was replaced by Vicente Grez (1847-1909), an influential man of letters who had entered public administration in 1875 as an official of the General Post Office [figure 4.2]. Grez had gained fame in local political circles thanks to his literary and journalistic interventions, where he had

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<sup>421</sup> AN. MINT., vol. 1.308, s.f., Santiago, September 22; Lebu, September 29; San Felipe, October 20, and La Serena, November 11, 1885.

<sup>422</sup> One of the most delicate complaints for missing forms involved the Department of Parral, where 718 inhabitants were left out of the provincial counting. The problems of coverage, on the other hand, were especially delicate in the northern provinces integrated after the War of the Pacific. AN. MINT., vol. 842, ff. 207, 211-212 and 215 of August 20 (doc. 58), September 13 (doc. 62) and October 25, 1886 (doc. 70); also, vol. 1,308, s.f., Parral, November 11; Linares, November 13; and Iquique, January 14 1886.

<sup>423</sup> *El Ferrocarril*, Santiago, July 19, 1888; also AN. MINT., vol. 1,308, s.f., Santiago, March 17, 1886; vol. 1,425, s.f., Santiago, February 7 and July 26, 1887; vol. 1,528, s.f., Santiago, January 3, April 14, May 30, and June 28, 1888; vol. 842, ff. 316, 335-336, 339 and 344-345, July 9 (doc. 56), and November 20 (doc. 111), 1889; January 2 (doc. 1) and February 5 (doc. 16), 1890.

distinguished himself as owner of a sharp and funny pen, as well as for his support of the fine arts. Although he had bureaucratic experience and familiarity with the public sector (apart from working in the postal service he had also served as deputy of the Republic), his profile did not fit the requirements of the statistical world. The gap between his trajectory and the position entrusted to him should not have been indifferent to those who knew the field closely.<sup>424</sup> Perhaps more important than that appointment was the approval of Joaquín Álvarez de Toledo's retirement application, the historic first official of the Statistics Office, active since the days of Santiago Lindsay (with whom he had arrived at the service in July 1858). Álvarez's retirement in April 1890 ended a stay of almost 32 years in the division, where he also served as interim director replacing Lindsay in 1872 and Astaburuaga between 1879 and 1881. With its departure, the Office lost its oldest and most experienced official, someone who knew the statistical service and its insoluble problems best.<sup>425</sup>

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<sup>424</sup> AN. MINT., Vol. 1,528, s.f., Santiago, March 14 and April 2, 1888. Also, De Ramón, *op. cit.*, vol. II, pp. 180-181, and Virgilio Figueroa, *op. cit.*, vol. III, pp. 377-378. In a brief biographical sketch, Raúl Silva Castro echoed the humor with which the members of the world of letters and culture interpreted the designation of one of their peers in administrative positions of certain relevance. Below I reproduce what Silva said about Grez's designation, partly because it portrays the mood of that group, but also because it reflects his own impression of the centrality of statistical functions: "Carlos Luis Hübner, another amateur journalist like Grez and also fan of the witty chatting, said that when in Chile a man had distinguished himself for composing sentimental pieces of music, he was appointed a fiscal treasurer. In the course of 1888, what use could be made, to improve his position within the administrative service, to a man of festive conversation, diligent as a journalist and a fan of the fine arts and the novel, fields in which he excelled as few? He was then appointed director of the Central Statistics Office to replace Don Francisco Solano Astaburuaga, writer and poet as well, and in that administrative position he remained until his death, with no other parentheses than the Civil War, during which Grez was persecuted and forced to emigrate." Raúl Silva Castro, *Vicente Grez (1847-1909)* (Santiago: s.p.i., 1969), p. 25.

<sup>425</sup> AN. MINT., vol. 842, ff. 348-349, April 1, 1890 (doc. 26).



Figure 4.2. Portrait of Vicente Grez Yávar (1847-1909), Director of the Statistics Office between 1888 and 1909. Image: Memoria Chilena, National Library of Chile.

Upon assuming office, Grez had as immediate tasks the acceleration of the publication of the 1885 census and the restoration of the *Anuario Estadístico*, interrupted since 1885. On the latter, he counted on direct government assistance. During the first weeks of April 1890, a few days after Álvarez's retirement, the Ministry of Interior launched a wide-ranging intervention in the service. It did so by a decree that ordered the resumption of all pending statistical investigations, in particular those relating to the period 1885-1889, which remained uncovered. This was meant to strengthen the effect of a push given by Grez himself just a month before,



when he presented the draft of what would end up being Volume 24 of the *Anuario Estadístico*, gathering data ranging from 1883 to part of 1885. Grez's was a significant gesture, insofar as it announced the eventual end of a long editorial silence that had paralyzed the statistical arteries. Refolding the publication and updating its contents opened up the possibility of restoring one of the main sources of pressure to activate the bureaucratic channels of data collection. This was crucial not only for the regularization of the *Anuario's* chronological coverage, but also as preparation for the running of the institutionality planned in the reform project. Interestingly, as that discussion was delayed, authorities had no other recourse than to think of this reactivation within the worn informational scheme set up in 1855. In fact, the text of the decree explicitly spoke of provincial statistical officials, presuming that their functions would be assumed by the first secretary of each intendancy given the disappearance of that office. The only innovation inserted in the decree concerned the installation of a new modality for the compilation and publication of results. In particular, the Statistics Office was obliged to prepare quarterly summaries that would be published in the *Diario Oficial* [Official Gazette], which in turn would serve as a basis for the edition of the general statistics to be printed within the first half of each year. To prevent provincial delays from altering this schedule, it was established that the summaries should be made only with the information available and that any delay or absence of data should be recorded by the Office in the corresponding publication. To speed up the updating of the registers, six auxiliary officials for an initial term of eight months were hired.<sup>426</sup>

In the immediate future, the intervention seemed to bear fruit. In the course of 1890 the preparation of volumes 25 and 26 of the *Anuario* advanced notably, for which even extra shifts were paid. In November, the printing of both volumes was contracted with the publishing company "La Patria" of Valparaíso and the following month an employee of the Office was commissioned for the revision of the page-proofs in that city.<sup>427</sup> The process went according to schedule, and it seemed that the production of statistics ran external to the radicalization of the political conflict. But that mirage was diluted promptly. As an accomplice and signer of the Deposition Act of President José Manuel Balmaceda, Vicente Grez had to leave for exile in Peru

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<sup>426</sup> Ministry of Interior, Central Statistics Office, April 8, 1890, *Boletín de las leyes y de las órdenes y decretos del gobierno*, Book LIX, no. 4, pp. 221-225. It is pertinent to check the copy of the decree inserted in the circular letter sent by the Minister of Interior to the municipalities with specific instructions to ensure compliance with the norm. AN. MINT., vol. 842, ff. 349-354, April 8, 1890 (doc. 27).

<sup>427</sup> AN. MINT., vol. 842, ff. 374, 376, 377, 381 and 382, September 22 (doc. 80), October 21 (doc. 85), November 5 (doc. 87), and December 16, 1890 (doc. 98).

in early February 1891, leaving vacant the direction of the Office. As many actors in those days, Grez had switched sides to the opposition after realizing the imminent collapse of the government to which he served. In the midst of the political realignments imposed by the beginning of the armed stage of the conflict, the recent achievements came undone. José Ramón Ballesteros, the substitute director, ordered to bring back to Santiago all the originals and page-proofs from Valparaíso, which meant the eventual annulment of the contract signed with “La Patria.” With a civil war in the background, the Office and the Ministry of Interior continued to exchange notes to find a new publisher and to finish work. Everything will be reversed again with the defeat of the government forces in August and the suicide of former President Balmaceda days later. After taking control of the country, the triumphant *Junta de Gobierno* annulled the decisions taken by Ballesteros, restored Vicente Grez to his position, and ordered the resumption of the plan of publications.<sup>428</sup>

A superficial revision of the editorial activity developed by the Statistics Office after the end of the conflict gives the impression that the 1890 decree pointed in the right direction. During 1892, the postponed volumes 25 and 26 of the *Anuario Estadístico*, with information referring to the period 1885-1888, were finally published. Two years later volume 27 was published, covering the period 1888-1889 and part of 1890. In 1895 volume 28 appeared, which extended the coverage until 1892. Although the annuity requirement had not been met, these volumes marked a significant advance, reducing the number of years missing. However, a detailed analysis of the content shows a less rewarding scenario. In the communications letters between the Office and Ministry of Interior numerous difficulties in collecting information were recorded. “The authorities appear not very jealous in the performance of this service and the citizens do not lend their cooperation, as would be desired, to a genuinely national work,” indicated one of these documents.<sup>429</sup> As a result, the quality of the information collected was poor with huge disparities between provinces. However, the government had chosen to keep the publication schedule, somehow following the same logic imposed by Lindsay in the early 1860s. As it was impossible to aspire to higher standards in the short term, and given the need not to

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<sup>428</sup> AN. MINT., vol. 842, ff. 392, 393, 395, 397, 399, 401, 402, 404 and 462, February 5 (doc. 10), February 13 (doc. 11), March 20 (doc. 16), April 4 (doc. 21), May 11 (doc. 26), June 5 (doc. 35), July 29 (doc. 45) and October 1 1891 (doc. 1).

<sup>429</sup> AN. MINT., vol. 2, 061, s.f., Santiago, May 15, 1893.

disappoint those provinces that had fulfilled their statistical commitments, it was more appropriate to publish incomplete reports than not to publish at all.<sup>430</sup>

The four volumes edited after the end of the Civil War had low scientific value. The data deficiency, deteriorating as the coverage period advanced, had made elementary operations like comparisons impossible. This happened in demographic matters, for example, due to the method applied in the population census of 1885, which was applied using the old administrative division (parishes) and not the one created after the promulgation of the Civil Registry Act (civil circumscriptions). As a result, there was no choice but to continue publishing the collected data and postpone the specific analyses until the application of the 1895 census, the first projected on the basis of the new territorial division. Similar excuses appeared in the thematic introductions of Volume 27 (1894), where comparative tables or more sophisticated exercises on themes such as charities, municipalities, and industries and professions were to be dispensed with. Even more serious was the situation of judicial and criminal statistics, which were not incorporated in the volume due to the scarce data collected.<sup>431</sup>

If the state of the statistical service was relatively complex before the Civil War, the territorial dislocation that followed that event only aggravated the situation. The administrative tailings of the Civil War of 1891 lack specific studies. It is known, however, that several State services and activities lost regularity after the struggle ended. As example serves the National Hydrographic Office of the Navy, established in 1874 to produce cartography and specialized knowledge regarding the coasts and water resources of the Republic. Its director, Francisco Vidal Gormaz, remained outside the negotiations that led naval officers to revolt against Balmaceda, and probably for this reason he had to leave his post in December 1891. This opened a period of unusual rotation in the leadership of the organization, an issue that impacted on the continuity of its scientific work and led to the suspension of the *Anuario Hidrográfico de la Marina de Chile*, one of the main publications of the institution and equivalent in importance to the *Anuario Estadístico*. It regained its periodicity only in 1894<sup>432</sup>. More serious was the situation of Isla de Pascua, annexed to Chilean territory in 1888 and placed under a State plan of colonization. After

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<sup>430</sup> *AERCh correspondiente a los años 1885-1886. Tomo XXV* (Valparaíso: Imprenta de “La Patria,” Calle del Almendro Núm. 16, 1892), p. i.

<sup>431</sup> *AERCh correspondiente a los años 1888-1889 y parte del 90. Tomo XXVII* (Valparaíso, Imprenta de “La Patria,” 1894), pp. ix, x y xv.

<sup>432</sup> Juan Ricardo Couyoumdjian, “Francisco Vidal Gormaz: su vida, su trayectoria profesional y la *Geografía náutica de Chile*,” in Francisco Vidal Gormaz, *Cartografía náutica de Chile* (Santiago: Cámara Chilena de la Construcción: Pontificia Universidad Católica de Chile: Biblioteca Nacional de Chile, 2013), pp. xix y xxvii.

the war, the island was practically left to its fate and years had to be waited until official ships arrived with instructions and resources. The abandonment by the government gave way to the privatization of the colonizing process, inaugurating the era of commercial exploitation of the island as a sheep farm.<sup>433</sup>

In the case of the Statistics Office, the conflict only accentuated the disconnection between the capital and data collection units. This was stated by Grez in the introduction to Volume 28 of the *Anuario* (1895), which was also the last published in the format forged during the nineteenth century. “On the occasion of the political events of 1891,” Grez said, “the statistical service in the provinces was so disorganized that it was not possible for the Central Office to complete the data which should have been included in this volume. For the reasons mentioned, the data contained in this *Anuario* are very incomplete, and we have decided to give them birth only to not interrupt the series of statistical publications, refraining from making proportional and comparative studies regarding them, which would be irrelevant due to the lack of seriousness of its bases.”<sup>434</sup> Clearly, the Office seemed to show sufficiency only in maintaining the editorial fiction of the *Anuario*. For the rest, decomposition ruled.

The situation was particularly delicate at the territorial margins. In spaces as remote and administratively anomalous as Magallanes, the statistical service only existed nominally, lacking archives, competent officials and even minimal inputs to initiate research. In the Intendancy of Tarapacá, in the extreme north, the difficulties arose from the extension of the sub-delegations, the wide dispersion of its inhabitants (distributed in small numbers in places of difficult access) and the impossibility of finding among them qualified people to assume bureaucratic functions, since until then mostly foreigners had held positions of local administration.<sup>435</sup>

In other provinces other setbacks were detected, this time originated in administrative disorientation following the promulgation of a new law of municipalities (December 1891), also known as the Autonomous Commune Act. This was one of the emblematic projects of the reform of the political system promoted by the forces of the National Congress after its triumph in the

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<sup>433</sup> Claudio Cristino, “Colonialismo y neocolonialismo en Rapa Nui: una reseña histórica,” in Claudio Cristino and Miguel Fuentes (eds.), *La Compañía Explotadora de Isla de Pascua. Patrimonio, memoria e identidad en Rapa Nui* (Santiago: Centro de Estudios de la Isla de Pascua y Oceanía, Universidad de Chile, 2011), pp. 34-38.

<sup>434</sup> *AERCh correspondiente a los años 1890-1891 y 1892. Tomo XXVIII* (Valparaíso: Imprenta de “La Patria,” 1895), p. i.

<sup>435</sup> AN. MINT., vol. 2.061, s.f., Punta Arenas, March 14, 1892. For some references on the situation of this governorate, vol. 842, ff. 347-348 and 354, March 26 and April 9, 1890 (docs. 26 and 28). On Tarapacá, vol. 2,061, s.f., Iquique, October 3, 1895, and Santiago, November 14, 1895.

Civil War. With this norm, municipalities became responsible for the regular production of their own statistics (because they were conceived as administrative and development spaces), although always in accordance with the instructions given by the central office.<sup>436</sup> Although the law did not seem to interfere with the current regime, it was so understood by some intendants, such as of Talca, who expressed doubts about the status of the provincial statistical service after the establishment of this new space for data collection. The Ministry of Interior and the Statistics Office were emphatic in clarifying that the new function referred to eminently municipal matters, without compromising the general statistical information whose collection was still entrusted to the intendancies. Nevertheless, the apprehensions of the Intendant of Talca exposed the administrative precariousness that threatened the correct implementation of the municipal law in what this service referred to. Considering that municipal resources seemed insufficient to maintain permanent communication with the authorities scattered throughout the territory, especially in the rural sections, and because ultimately the director of the Statistics Office had no power to compel the mayors of the municipalities to forward in a timely manner the information demanded by both departmental governors and intendants, it was difficult to envisage an effective implementation of the new regulation.<sup>437</sup>

It was in this context that the Statistics Office had to assume the organization of the population census scheduled for 1895, the first planned according to the division in civil circumscriptions sanctioned by the Civil Registry Act. Significant changes were also introduced in the forms, such as the registration of religious denominations other than Catholic and a greater detail in the recognition of the nationality of children of foreigners.<sup>438</sup> As in previous censuses, coordination of the national network of census-takers was relatively effective. Reports sent from the intendancies regarding the preparations and the performance of the census commissions did not minimize the usual difficulties –to attest, first, the anticipation efforts and to justify, later, omissions and errors of application– but the overall balance was satisfactory. Of course, records of some provinces presented unusual problems, such as Aconcagua, which registered a total population almost equivalent to that of the 1854 census, much lower than expected, as did Talca, which showed significant decreases in two of its departments. Once the alarms were contained

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<sup>436</sup> General Law on the organization and attributions of municipalities, Art. 26, No. 8, December 24, 1891, Anguita, *op. cit.*, vol. III, p. 198.

<sup>437</sup> AN. MINT., vol. 1,944, ff. 18-19, Santiago, July 25, 1894 (Intendancy of Talca) and vol. 2,147, s.f., Talca, January 3, 1896, and Santiago, August 24, 1896.

<sup>438</sup> Estefane, “‘Un alto en el camino’...,” pp. 37 and 58.

(the government even proposed to repeat the enumeration in Aconcagua), the numerical gaps were charged to the previous censuses, since the recent figures allowed to corroborate some old not investigated accusations regarding the inflation of demographic data for electoral purposes.<sup>439</sup>

The problematic of this context is that the satisfactory degree of articulation achieved in special operations such as censuses could not be replicated for ordinary statistical research. The gap between sporadic and regular statistical activities still seemed insurmountable. Taking advantage of the visibility of the subject, the same day of application of the census of 1895 the editors of the newspaper *El Ferrocarril* published an extensive reflection that regreted this lag: “For a really incomprehensible carelessness, of all the administrative branches the one of the statistics has been until now the only one that remains stationary, as at the time of its installation half a century ago. This service vegetates in the same rudimentary conditions of that time, without alteration in its personnel and, what is stranger still, with the meager [wages] fixed in the law of its foundation. All officials of the administration have increased their salaries in proportion to the variable demands of the times [...], a unique exception made to the employees of the statistical service of the Republic. It is something so abnormal, that it seems implausible. [...] With the small staff of statistical employees in the country and their meager remuneration, it is absolutely impossible that this indispensable element of good administration fulfills the purposes for which it is intended.”<sup>440</sup> As part of the argument, the article referred to the successive projects presented to modernize the service and in particular to the one that remained archived in Congress from 1889, insisting on the urgency of its prompt approval.

At the institutional level, not much had been achieved after the appearance of the last volume of the *Anuario* in 1895. In fact, after successive attempts from the Office, Grez had been obliged to resume his requests for intervention to the Ministry of Interior so that the intendants sent the missing data needed to resume, once again, that publication. In an extensive note sent in June 1896, Grez specified one by one the matters that each province had pending, thus proving the generalized delay. The government responded quickly and between the end of that month and

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<sup>439</sup> Regarding the preparation and implementation of the 1895 national census, see AN. MINT., vols. 2,016; 2,061; 2,146; 2,147; 2,226; and 2.253. For details on the case of Aconcagua, vol. 2,147, s.f, Santiago, July 27 and September 30, and San Felipe, October 6, 1896; on Talca, the same volume, Talca, January 3 and 9, 1896.

<sup>440</sup> *El Ferrocarril*, Santiago, November 28, 1895.

the beginning of the following had sent detailed notifications to each local authority.<sup>441</sup> But the intervention had no impact. Six months later, the situation remained practically the same: only for the period 1893-94 data were missing from at least 12 of the 24 administrative units to date. In this scenario, even the thesis that an incomplete publication was worth more than a nonexistent one became indefensible. In December 1896 Grez called again on the authority, this time not to renew his plea for ministerial intervention, but to force the adoption of an “energetic and definitive” measure to overcome the complex situation. Clinging to the obvious, “without statistical data it is not possible to make statistical publications,” he presented straightly the crux no one had dared to formulate: if the government did not visualize effective measures to remedy the lack of reaction from the provinces, the most convenient was “to close this Office, so the State could save the funds invested on it.”<sup>442</sup>

The response of the Ministry of Interior was symptomatic of the extent of the institutional loss. Along with requesting the remittance of an up-to-date list of missing data (ignoring the warning that little had changed since the report sent in June), Grez himself was asked to indicate what action should be taken. So he did.<sup>443</sup> His diagnosis began by indicating that bureaucratic indifference to statistics, generally attributed to the intendants, was at this point an evil that had been extended by imitation effect to the entire provincial administrative network, without distinction of rank. For this reason, the improvement of the service did not depend on isolated or specific measures, but through a comprehensive reform that included both the Statistics Office and “its ramifications throughout the Republic.” Although the Balmaceda project directly addressed the latter –streamlining information flows thanks to the statistical compilation work that would be carried out by the Provincial and Departmental Boards– Grez doubted this formula. He did not deny that it was superior to the existing one nor completely discarded it, but feared of its compatibility with the transformations to come. In his vision, just sketched out in the document, the territorial articulation would be better served by dividing the national territory into three statistical zones, each with its respective head and a number of subordinate employees to be defined. With regard to the reorganization of the Office, Grez’s suggestions were not far from those already proposed in the pending reform, although he insisted on the need to update the

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<sup>441</sup> AN. MINT., vol. 2,147, s.f., Santiago, June 22, 1896 (10 ff.) and vol. 1,944, ff. 235-242, 247-265 (the notifications were sent on June 30 and July 7, 1896).

<sup>442</sup> AN. MINT., Vol. 2,147, s.f., Santiago, December 3, 1896.

<sup>443</sup> *Ibid.*, Santiago, December 9, 1896 (reply by the government), and January 13, 1897 (Vicente Grez’s report with reform suggestions).

argument that had inspired it. If in 1888-89 there was no doubt that the material and human resources of the service were insufficient to meet the new needs imposed by “the development of population, industry, commerce, agriculture and other branches covered by the general statistics of the Republic,” by 1897 these reasons had multiplied.

It is interesting to note the strength accumulated by the diagnosis of incompatibility between the state of the service and the administrative requirements derived from the transformations experienced by the Republic in the second half of the nineteenth century. As I showed, José Francisco Vergara had already outlined this diagnosis in 1882, when many of these changes were still underway, and reappeared later, during the discussions of the Balmaceda project and the implementation of the 1895 census. Grez also made it his own and insisted on it, as he was doing it now and did it many times –perhaps with more hope than frustration– in his continuous demands for intervention to the Ministry of Interior: “The need of reforming the statistical service becomes more imperative every day. A country without statistics is inconceivable and ours are very deficient because its works do not appear in a timely manner and there are many interesting subjects that remain out of its reach [...]. I would like to remind you that the current statistical service was organized half a century ago, when the country neither had a third of the current population nor the tenth of its wealth and trade, neither railroads nor half of the territory today it cultivates with its agriculture and other industries. During that time, all public services have been reformed once or twice, except statistics, which remain stationary while administration develops and the country progress.”<sup>444</sup>

In the absence of alternatives, Grez had no choice but to conclude his intervention by insisting on the need for the Chamber of Deputies to dispatch the pending project as soon as possible, the only short-term way to “lift the statistical service up to the height which corresponds to it in relation to our intellectual culture.” Assuming that such processing could be delayed, he proposed the adoption of three transitory measures aimed at overcoming the marasmus: first, sending circulars letters to the intendants demanding more attention in the fulfillment of their obligations; second, to enact as a trial the creation of the Provincial and Departmental Statistical Boards in accordance with the Balmaceda project; third, to commission

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<sup>444</sup> AN. MINT., vol. 2,061, s.f., Santiago, May 15, 1893.



an employee of the Statistics Office to conduct periodic visits to those provinces where the statistical service was operating unsatisfactorily.<sup>445</sup>

Although these transitional measures responded to the need to reactivate the service while the overall reform was approved, Grez's suggestions did not imply a significant distancing from the repertoire of responses implemented in previous decades. The first, issuance of circulars letters, entailed to assume the absolute dependence of the statistical service on the willingness of the provincial bureaucracies to respond. Given the precariousness of such subordination –that is what emerges from the lukewarm and unequal obedience of these bureaucracies to contribute to the production of this State knowledge– his proposal reflects the impossibility of imagining alternative mechanisms of articulation, however provisional, between the center and its administrative peripheries. Not even the second measure, which in many ways could be seen as an antidote to provincial indifference, guaranteed the opening of new gears of informational circulation. The work of the Provincial and Departmental Boards depended on the time the secretaries of intendancies and governorates could devote to these tasks, since they remained being the filter of data gathering and communication with the center; and that time, ultimately, depended on the margins that intendants and governors were willing to open by relieving them of their routine administrative duties.

The third measure, the implementation of a system of administrative visits, was perhaps the most relevant given the territorial disarticulation and the atrophy of the links between the sources of information and the points of statistical systematization. However, this was no more than the updating of the same strategy proposed by Santiago Lindsay in the 1860s, when the objective was to mount a then-non-existent territorial machinery to collect the inputs that would sustain the publication of the *Anuario*. Although the organization of periodic visits could mean progress in the short term and the retrieval of the bureaucratic memory that the crisis of growth had deactivated, the absence of intervention on the discipline of the provincial administrative cadres (the most resistant ring within the system) threw doubt on that the measure could yield equivalent fruits. Grez did open an interesting space of bureaucratic imagination in the proposal of division of statistical work into three equivalent territorial zones. In practice this implied to move toward the scheme of functional de-concentration discarded in the structuring of 1847. However, at least in the context of this exchange there was no further development on this

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<sup>445</sup> AN. MINT., vol. 2,147, s.f., January 13, 1897 (13 ff.).

proposal. Grez's report was filed in March 1897, as indicated by the laconic rubric inserted at the end of the document.

#### 4.5. Central de-articulation and sectorial de-concentration

In a period of fifteen years, the Statistics Office met three reform projects: the one of José Francisco Vergara of 1882, the one of the Balmaceda government discussed between 1888 and 1889, and the transitory measures proposed by Vicente Grez in 1897. The failure of all three had not only prolonged the crisis, but also made unfeasible to generate a general statistics of the Republic, the main mission of the Statistics Office. This, however, did not affect the progress of sectorial statistics. As was the case during the laborious installation period in the 1840s, the production of knowledge in areas such as trade, agriculture, industry and justice maintained some continuity thanks to the emergence of autonomous institutional spaces and productive rhythms. Despite the decomposition of the central division, this is what explains the availability of some statistical figures from the late nineteenth and early twentieth centuries. These tasks were carried out mainly by the State, but through ministries that assumed the installation of specialized bureaucracies in sectorial statistics, mainly in the Finance, Justice, and Industry and Public Works; business associations –SNA, SONAMI and SOFOFA– also joined these efforts through subsidies from the public treasure.

Although commercial statistics remained attached to the regularity adopted very early, its institutions had also begun to show signs of lag with respect to the transformations derived from economic modernization and the territorial extension of the country. As I showed in the previous section, during the discussion of the Balmaceda project, the separation of the Commercial Statistics Office of Valparaíso from the Central Statistics Office in Santiago was again under revision, being a sensitive point for those who insisted on the thesis that all statistical institutions should be subject to a single organism. The insistence that the second absorbed the first was sharply criticized during the discussion and the facts eventually proved such resistance right. However, this did not solve the basic problem: commercial statistics remained anchored in the structuring established in 1864, without having been modified by the Law of January 20, 1883, which reorganized the customs of the Republic, nor re-evaluated once new ports were incorporated after the end of the War of the Pacific. Although provisional measures were taken in 1883 while awaiting a substantive amendment such as extending working hours to justify

extraordinary remunerations, this had not compensated for the workload imposed by the establishment of new customs offices nor did it meet the demands for modernization of the service. As a way to intervene on this situation, in 1893 the National Congress approved the allocation of bonuses to officials calculated according to years of seniority in the service (80 percent over ten years, 70 percent between five and ten years, and 30 percent under five years).<sup>446</sup> From then on, the statistical division of the Custom House only expanded the scope of its research, assuming by decree the traffic logs of freight State railroads and the measuring of the tonnage transported through the ports of the Republic. Under the same file, its participation in the production of mining statistics was decreed.<sup>447</sup> The statistics of production and consumption of wines and spirits, established in the Alcohols Act of 1902, was also placed under the supervision of the Ministry of Finance, further expanding the statistical competencies of the secretariat.<sup>448</sup>

In the Ministry of Justice and Public Instruction, this expansion was expressed through the restitution of the position of judicial statistician, who had had an ephemeral existence in the 1840s. This measure was part of the division of the secretariat in two ministries at the end of 1899, Justice on the one hand, and Public Instruction on the other, under the direction of a single Secretary of State.<sup>449</sup> With this new functionary it was tried to resume and professionalize the investigations that appeared in the pages of the *Anuario*, where the first periodical essays of a specialized statistic appeared, focusing on criminality, prison population and the administration of justice. However, as in other fields, the lack of conceptual precision in dealing with some phenomena and budget problems affecting the data collection process had undermined the confidence in these researches, mainly among specialists. In any case, the authorities persevered in the effort to maintain a publication program. Coinciding with the disappearance of the

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<sup>446</sup> Employees Salary Increase Act of the Valparaíso Customs Department, February 1, 1893, Anguita, *op. cit.*, volume III, p. 253. For details of the discussion, SCN, Senate, session 16 (ordinary) and session 55 (extraordinary) on August 10 and December 29, 1892, pp. 180-181 and 774-775, respectively.

<sup>447</sup> On the registers of freight railroads, see decree of September 15, 1896, *Boletín de las leyes y decretos del gobierno*, Book LXV, no. 9, 1896, pp. 724-725; on the tonnage of port activity, decree of November 9, 1905, *Boletín de las leyes y decretos del gobierno*, Libro LXXV, November, 1905, pp. 1.542-1.543. With regard to mining statistics, a complex issue due to the legal limitations of State officials to demand data on private activities, it was ordered that the Commercial Statistics Office (in association with SONAMI) collect figures of the transit of minerals by the national customs. Decree of June 28, 1901 *Boletín de las leyes y decretos del gobierno*, Libro LXXI, Second Quarter, 1901, pp. 473-474. For some antecedents regarding the difficulties to generate mining statistics, AN. MINT., Vol. 888, s.f., Santiago, March 14 and 30, 1882.

<sup>448</sup> Law on Alcohols, January 20, 1902, Anguita, *op. cit.*, volume IV, p. 13.

<sup>449</sup> Division of the Ministry of Justice and Public Instruction, December 15, 1899, Anguita, *op. cit.*, volume III, p. 482.

*Anuario*, the ministry published several prison statistics that even had a consolidated version in 1900 with the appearance of the *Estadística de las penitenciarías y presidios correspondiente a los años 1894-1899*. The effort, of course, dealt with critiques.<sup>450</sup> Later decrees formalized the modernization of this branch of statistics, specifically in areas such as the registration of crimes and the administration of prisons.<sup>451</sup> One of the objectives of these reforms was to move, as it was said at the time, from purely prison statistics to a true criminal statistics. A key figure in creating conditions for this transit was the French engineer Francisco de Bèze, hired by the Chilean government in the mid-1890s to modernize these investigations.<sup>452</sup>

In agriculture, these changes found a more robust institutional expression. Showing significant delays with respect to the modernization of the sector, agricultural statistics were still far from achieving desirable standards of precision and coverage. Therefore, their impact on the debates within the industry remained weak. As showed in the previous chapter, as early as 1869 the *Boletín de la Sociedad Nacional de Agricultura* insisted on the need to improve agricultural statistics, seeking to persuade producers and landowners of the importance of providing the information requested by the officers responsible for preparing it. Three decades later the situation was similar. Indeed, at the beginning of the twentieth century the association continued to dissert on this need, although its vision of the service was already far from the complacency expressed earlier: “born weak and maintained to ration of hunger, our statistics is like a man who arrived at the age of full development and would like to walk without having the strength to do so. Lying from childhood is like a liar who is not believed under any condition, and then, rickety and unworthy of faith, is useless and pernicious.”<sup>453</sup> In that context, in May 1903 the government ordered the creation of the General Inspectorate of Agriculture, consisting of three sections, the

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<sup>450</sup> Regarding judicial and criminal statistics at the turn of the century, Marco Antonio León, *Construyendo un sujeto criminal. Criminología, criminalidad y sociedad en Chile. Siglos XIX y XX* (Santiago: Centro de Investigaciones Diego Barros Arana: DIBAM: Editorial Universitaria, 2015), pp. 83-85. For a pertinent historiographical reflection on the uses and analytical potential of crime statistics, Daniel Palma, *Ladrones. Historia social y cultura del robo en Chile, 1870-1920* (Santiago: LOM Ediciones, 2011), pp. 121-127; on its role in shaping the discourses around criminality and imprisonment, Marcos Fernández, *Prisión común, imaginario social e identidad. Chile, 1870-1920* (Santiago: Centro de Investigaciones Diego Barros Arana: Editorial Andrés Bello, 2003), pp. 36-47.

<sup>451</sup> See, among others, decree of May 23, 1900, *Boletín de las leyes y decretos del gobierno*, Book LXX, Second Trimester, 1900, pp. 402-403 and decree of September 5, 1905, *Boletín de las leyes y decretos del gobierno*, Book LXXV, September 1905, pp. 1.264-1.265.

<sup>452</sup> Virgilio Figueroa, *op. cit.*, vol. II, p. 197 and Pedro Pablo Figueroa, *Diccionario biográfico de extranjeros en Chile* (Santiago: Imprenta Moderna, 1900), pp. 43-44.

<sup>453</sup> *Boletín de la Sociedad Nacional de Agricultura*, Santiago, vol. I (1869): 53-54 and vol. XXXII, No. 40 (1901): 799-801. For other critical testimonies regarding the situation of statistics in general, and of the production and consumption of alcohol in particular, see Marcos Fernández, *Bebidas alcohólicas en Chile. Una historia económica de su fomento y expansión, 1870-1930* (Santiago: Ediciones Universidad Alberto Hurtado, 2012), pp. 14-17 and 214.

first two focused on education and development and the third devoted to the production of agricultural information, statistics and publications.<sup>454</sup> This, as can be presumed, was part of the attempts to establish a coherent basis for this service, and while responding to the local needs for reliable information, it was also part of an international movement that had as its core the development of agricultural production and the formation of a body of knowledge. In 1905, at a meeting in Rome, it was agreed that the International Institute of Agriculture should be established to collect, coordinate and unify all official statistical information on agricultural matters and to encourage data collection in countries that lacked regular and specialized services. The Information, Statistics and Agricultural Publications Section of the General Inspectorate of Agriculture served these purposes, offering itself as a link between the government and the new international institutions.<sup>455</sup> The Inspectorate of Agriculture, in turn, was placed under the administration of the Ministry of Industry and Public Works, which also coordinated the production of railway statistics through the General Directorate of Railways.<sup>456</sup> Along with Finance and Justice, the portfolio of Industry and Public Works was one of the key areas in the deployment of functional de-concentration.

At the beginning of the twentieth century, the most significant changes were taking place in the field of sectorial or specialized statistics. The central service, on the other hand, remained anchored in a scheme that was set to turn sixty. To some extent this reflected a conceptual change in the way of understanding the production of this knowledge, enhancing the autonomous development of some fields, specifically of the productive ones, in detriment of the ideal of centralization that inspired the installation of the statistical system in its beginnings. If one places this tendency in the coordinates of the Balmaceda project, this implies reinforcing the statistical production of the second thematic section, the economic one, through a progressive de-concentration of its research; the other two –physical and administrative issues on the one hand, and demographic-social, on the other– were only being covered to the extent of the possibilities offered by the existing institution, whether through supervision by ministries responsible for specific activities, as in the case of the Ministry of Industry and Public Works with railways, or through scheduled enumerations, as in the case of population censuses. Under these terms it may

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<sup>454</sup> Decree of May 30, 1903, *Boletín de las leyes y decretos del gobierno*, Book LXXIII, Second Trimester, 1903, pp. 470-472.

<sup>455</sup> Decree of April 19, 1910, *Boletín de las leyes y decretos del gobierno*, Book LXXIX, April 1910, pp. 417-418.

<sup>456</sup> The production of railway statistics was initially entrusted to the Accounting Section of the General Directorate of Railways. General Law on State Railways, January 7, 1884, Anguita, *op. cit.*, vol. II, p. 573.

be understood, for example, the application of a new national census in 1907, two years after the date of original verification. Despite the delay, which was due in part to the institutional problems already described, their implementation reflected the State's willingness not to jeopardize census continuity. Also, this registration marked a significant advance in terms of coverage being the first in which the Mapuche population was surveyed, although still separated from the Chilean population. To mark this racial border, special certificates (distinguished by color) and specific instructions regarding the identification criteria for the respondents (way of life, dress and language) were available.<sup>457</sup>

It was also in 1907 that another key institution emerged in this process of statistical de-concentration, the Labor Office [*Oficina del Trabajo*]. As was the case with the main reforms introduced into the national statistical program during the early twentieth century, this division was also created by decree and had as its institutional basis the statistical section of the General Inspectorate of Agriculture, established in 1903. Indeed, the Chief Inspector of that section, Simón Rodríguez, assumed the leadership of the new organization, and because of this affiliation and the nature of its tasks, the Labor Office was located in the Ministry of Industry and Public Works. More than an inspection body, this agency started as a unit specialized in the production of research and statistics related to working conditions of the country. This definition included such crucial themes as the characteristics of industrial labor –number of workers, length of working hours, wages and accident rates– and the workers' living conditions –for example, the study of the price of food and housing. Although the initial bureaucratic musculature of the division was lean, with only two officials, in the short term its staff grew while expanding its range of action and repertoire of attributions.<sup>458</sup>

But the most decisive measure in this strategy of de-concentration took place in 1908, when it was decided to link the receipt of fiscal and municipal taxes to the delivery of statistical information by taxpayers. According to a law approved in February of that year, the fiscal and municipal treasurers could not receive any tax if taxpayers had not filled out the statistical forms specified in a regulation that for these purposes would be dictated by the President of the Republic. The law contemplated pecuniary penalties for treasurers who did not comply with the

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<sup>457</sup> Jorge Pinto: "Censos e imaginarios en el Chile del siglo XX," p. 182 onwards and *Los censos chilenos del siglo XX*, pp. 39-64.

<sup>458</sup> In this brief characterization of the *Oficina del Trabajo* I follow Juan Carlos Yáñez, *La intervención social en Chile, 1907-1932* (Santiago: RiL Editores, 2008), in particular chapter 1, "El trabajo de contar," pp. 31-70.

rule and for taxpayers who refused to provide data or did so in an adulterated manner.<sup>459</sup> This regulation focused in particular on economic statistics.

This law was an important step because it addressed two crucial issues in the trajectory of local statistics. First, it overturned the recurring problem of the lack of legal mechanisms to force individuals to provide the information requested by the authorities in an expeditious and unreserved manner. The decision was not exempt from controversy, because the fact of subordinating the recovery of taxes to the delivery of statistical data by taxpayers imposed not less budgetary risks for the institutions included in the law, especially for the municipalities, that could see their income reduced from possible breaches. However, the criterion of the norm prevailed under the conviction that for the first time there was a mechanism to ensure the regular provision of data on activities that circumvented statistical normalization efforts, thus eroding indifference and even the resistance still detected among citizens devoted to economic activities with high returns.

Second, the law reinforced the trend towards administrative de-concentration outlined in the Autonomous Commune Act of 1891, which had converted the municipalities into a new space for the collection and transmission of data. Through this law, municipal treasurers emerged as new and crucial players in the choreography of local officials arranged at the starting points of the arteries of information circulation, with similar obligations to the secretaries of governorates and intendancies, although with more prerogatives. For contemporary observers such as the politician Victorino Rojas Magallanes, a tireless promoter of municipal power, this aspect of the law implied a remarkable progress for the statistical system, because it was in tune with what he understood as the primary space of administrative order, the commune; at the same time, it recognized an “elementary notion” for the proper functioning of the service, namely that the collection of data was to be carried out “in small portions of the territory and by the authorities who were in closest contact with those that had to supply data.” “The smallest section of the territory is the commune,” he said in a brief text referring to this matter, “and the authorities that have more direct relationship with the taxpayers in charge of providing data, are the municipal treasurers.” In that line, and referring to Balmaceda's proposal to create Provincial and

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<sup>459</sup> It is prohibited to get taxes to the fiscal and municipal treasurers until the taxpayer completes the respective statistical forms, February 11, 1908, Anguita, *op. cit.*, volume IV, p. 230. As reference for future investigations, it is necessary to specify that in the subsequent legislation this law appears on two different dates, February 11, 1908 (date of promulgation) and April 30, 1908 (date of publication in the *Diario Oficial*).

Departmental Statistical Councils –on which, incidentally, he had an unfavorable opinion because of their *ad honorem* character– Rojas even proposed the establishment of communal commissions as part of the service improvement efforts.<sup>460</sup>

The presidential regulation announced in the law of February 1908 was issued at the end of April of the same year and normed, on the one hand, the preparation of the forms to be distributed by the fiscal and municipal treasurers and, on the other, the way in which the former had to relate to taxpayers. One of the most interesting aspects of this decree concerned the definition of the institutions that would participate in the preparation of the forms and in the preparation of the statistics by branch. It was here that the leading role played by business associations, which already counted on State subsidies for the preparation of their statistics, and also by the ministries that had taken over the production of sectorial statistics, were properly formalized. Under this logic it was decreed that the registration of agricultural and livestock activities would occur in the Information, Statistics and Agricultural Publications Section of the General Inspectorate of Agriculture (Ministry of Industry and Public Works); mining and mining establishments would depend on SONAMI, while the manufacturing and manufacturing statistics on SOFOFA; wine and alcohol would be prepared by the Alcohol Tax Administration, under the Ministry of Finance; statistics of work by the newly created Labor Office of the Ministry of Industry and Public Works, and private railroads by the Sub inspection of Private Railroads, attached to this latter ministry.

Another relevant aspect of the decree was the formal recognition of these offices as “statistical offices” and the assignment of almost total autonomy quotas, with the sole exception that the forms each prepared had to be reviewed and approved by the President of the Republic. The Statistics Office was practically outside this new scheme. No participation was recognized in sensitive issues as the preparation of forms or the definition of a publications guidelines to homogenize the statistical products. Its only and almost spectral mention in the norm identified it as entity receiving the summaries and annual charts the involved institutions had to prepare periodically.<sup>461</sup>

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<sup>460</sup> Victorino Rojas Magallanes, *La reorganización de la estadística* (Santiago: Imprenta, Litografía y Encuadernación Barcelona, 1907), pp. 13-24.

<sup>461</sup> Decree of April 27, 1908, *Boletín de las leyes y decretos del gobierno*, Book LXXVIII, April 1908, pp. 397-401.



#### 4.6. The parallel route: the re-concentration of sectorial statistics and the reform of 1911

The amendments introduced in 1908 by the February law and the April decree came to order the process of institutional de-concentration experienced by the national statistical service since the late nineteenth century. The changes implemented from various ministries, almost all processed through presidential decrees, found in the abovementioned norms a space of articulation that was equivalent to an *ex post* reorganization of the statistical system, although implemented outside the central institution and without organic links with it. This deficit did not go unnoticed for the highest authority of the Statistics Office. For this reason, and in alliance with the Ministry of Interior, he commenced to study a reform that allowed to rebuild some kind of link with the emerging grid of specialized offices, but without attempting to alter the dynamics of de-concentration, which by this time seemed irreversible. As will emerge below, the search for an institutionally more organic order had indeed begun well before the enactment of the 1908 regulations, but repeated postponements prevented this proposal from being approved in advance or parallel to the articulation of specialized offices. Such delay ended up creating a scenario with two lines of simultaneous action. While on the one hand the goal was to regulate the inorganic process of de-concentration of the statistical research, on the other, it was sought to restore some degree of dependence or subordination of the new offices to the central organ. Having remained outside the reformist push, the Statistics Office remained anchored –operationally and budgetarily– in an expired physiognomy.

The first outline of a response from the Statistics Office circulated in 1906. In it, Vicente Grez expressed his diagnosis regarding how the central institution should intervene in the new statistical scenario. The first step was to take distance from the Balmaceda reform, especially the establishment of the General Council and the Provincial and Departmental Boards, which he considered administratively unstable given his voluntary and gratuitous character. In his replacement, he proposed moving toward the centralization of tasks, strengthening the technical coordination and supervision of the General Director of the institution. But this change, as has already been pointed out, could not be implemented ignoring the process of fragmentation experienced by national statistics. Recognizing the impossibility of implementing absolute centralization (a question that could be studied in the future, in a context of greater budget affluence, and where such a basic requirement as having a building large enough to bring together an already expanded bureaucracy), Grez was betting on an intermediate solution that

would reconcile the de-concentration with the repositioning of the central institution. The German and French cases confirmed the pertinence of this type of balance, especially the second, where the General Statistics Office coordinated the data gathering processes and research work deployed in various ministries. “This system seems to be the most appropriate for us,” Grez said at the end of his presentation, “there are already several offices of special statistics, which have smart and practical staff, conveniently installed and in full activity. It seems logical to leave these offices subsistent and subject, in technical matters, to the superior control of a Director General in order to standardize the work.”

In its details, the project included the idea of setting fines for civil servants and private agents who obstructed the collection of data (a matter finally covered by the 1908 legislation), as well as the appointment of a secretary-librarian in charge of national and foreign correspondence, for which knowledge of English and French were required. Another interesting aspect was related to the territorial dimension of the data collection, in which Grez distanced himself from both the Balmaceda model and the proposal he had presented in 1897, when suggested the division of the national territory into three statistical areas. Rehabilitating the nineteenth-century system, the project re-entrusted this task to provincial and departmental bureaucracies, specifically to the first officers of the intendancies and the mid-level officials of the governorates, who would receive differentiated bonuses according to their geographical location. With regard to the internal composition of the Statistics Office, a substantial increase in the number of staff was proposed, from eight to eighteen officials, but without specifying their remuneration. The research work, in turn, was divided into three sections, each one headed by a section leader.<sup>462</sup>

The earthquake that affected Valparaíso in August 1906 was the first episode that delayed the discussion of the initiative within the government. Then, a ministerial crisis leading to the departure of the Ministry of Interior delayed its review again. The text was finally endorsed in October 1907 by a new ministry, but this did not guarantee an immediate procedure. The fate of the Balmaceda government project, at the time filed for almost two decades, constituted an inauspicious precedent for this reform. In a revealing symptom, in the midst of this process the officials of the Statistics Office decided to present to the National Congress a request for a pay

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<sup>462</sup> ARNAD, Ministries and Public Services, Ministry of Interior, Vol. 3,144, document no. 426 November 5, 1906 (Vicente Grez to Minister of Interior) (9 ff.).

rise, because they feared that the unpredictable processing times will end up postponing once again their demands. Time proved them right. The project was approved only in March 1909, and not as a law, as originally planned, but by decree, as had happened with all the recent regulation of the service.

The regulation had a relatively different structure than the initial project. This is explained by the fact that the February law and the April 1908 decree facilitated to dispense with several original items, such as those relating to sanctions against individuals who did not comply with the obligation to provide data and the territorial organization of the process of collecting information. The secretary-librarian did not pass the filter, as it happened to the total of officials, whose number dropped from 18 to 15. Overall, the reform covered three specific objectives. First, it restored the Statistics Office as an instance of centralization of the investigations carried out by the specialized offices, reinforcing its position as the only institution in charge of the “General Statistics of the Republic,” according to the premises of the law of 1847. To do so, it made explicit the subordination of all smaller statistical offices, insisting not only on the obligation to regularly provide the information required by the central institution, but also on the need to comply with its protocols for collecting and publishing information. This, of course, aimed to impose a criterion of re-concentration that did not exist in the legislation of 1908. Second, it maintained the division of statistical work into three thematic sections. The first section would cover statistics of population and territory, including meteorology, demography and immigration, mass media and transportation as well as the administrative division of the Republic. The second section would deal with the classic issues of economic statistics (agriculture, mining, trade and industry), but with the new inclusion of Public Treasury, an item whose space was forged amidst the process of de-concentration. The third section took a rather miscellaneous character, twinning public instruction, justice and criminality with the statistics of army, navy and police. That was the thick division, of general reference, as the director of the Office had the power to extend the coverage of any of the three. The third and final objective concerned publication policy, scheduled on an annual basis and divided into three volumes, one per section, plus the *Sinopsis estadística y geográfica*, understood as a synthesis of the previous ones.<sup>463</sup>

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<sup>463</sup> Decree of March 31, 1909, *Boletín de las leyes y decretos del gobierno*, Book LXXIX, March 1909, pp. 272-274.

The new organization of the work in statistical sections was the main reason for the expansion of the administrative staff. Although this strictly meant nothing more than the formalization of the tasks carried out so far by a variable contingent of auxiliary employees (hired annually as a supplement to the regular staff), the increase in the fixed number of civil servants represented a significant advance on the narrow organizational chart of 1847. The bureaucratic expansion also came with a substantial rise in wages, an issue that was handled in parallel through the discussion of the budget law for the year 1909. As the new roster had been sanctioned by decree and not by law, this was the most expeditious way to finance the new structure, avoiding a longer parliamentary procedure. In no case this was an anomalous strategy, since it had already been implemented to cover the costs of other services whose budgets had not been readjusted or re-discussed. In fact, it was common to disburse huge amounts of allowances and bonuses, which in the long run allowed the expansion of the State bureaucracy without waiting for the approval of institutional reforms. So it happened with the Statistics Office.

Indeed, the revision of the allowances approved for this service in the first years of the twentieth century confirms the total obsolescence of the law of 1847 in budgetary matters. In view of the need to supplement the remuneration of civil servants and also to cover operating expenses that did not exist at the time of the creation of the agency –such as the leasing of a telephone set, which appeared already in the bills payable in the early 1890s– the Ministry of Interior had been obliged to approve numerous special assignments that raised the increasingly elastic category of variable expenses. Only this way could the growing cost structure of the service be covered.<sup>464</sup> The Budget Law of 1905 is a good example of the naturalization of this mechanism. The allocation for that year was divided into two sections: the first, fixed expenses, covered the wages established by the law of 1847 according to the amounts allocated on that date (\$7,700 a year in total); the second, labeled as variable expenses, comprised the bonuses and extra pay assigned to staff and compensations to auxiliary employees (six for this year), plus desk expenses, rent for premises, postage, and a specific amount to contract the printing of documents. This section, justified by annexed regulations approved between 1879 and 1904, allocated \$7,080 to bonuses and assignments to auxiliary employees and officials not

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<sup>464</sup> On this practice, see *Ley de presupuestos de los gastos generales de la administración pública de Chile para el año de 1899* (Santiago: Imprenta Nacional, 1899), s. p., Item 58; *Ley de presupuestos de los gastos generales de la administración pública de Chile para el año de 1906* (Santiago: Imprenta Nacional, 1906), pp. 75-76 and *Ley de presupuestos de los gastos generales de la administración pública de Chile para el año de 1908* (Santiago: Imprenta Nacional, 1908), pp. 58-59.

contemplated in the original payroll. As can be seen, the amount allocated to these supplements equaled in practice the total fixed remunerations.<sup>465</sup>

Despite the informality of the mechanism, the processing of resources through the Budget Law of 1909 aimed precisely at normalizing the issue of wages. That was indeed the main argument put forward by the Minister of Interior when asking the Senate to approve a special item to finance the reorganization project. “It seems the time has come to mend fences with these employees,” he said at the time. Both chambers approved the matter without debate, thus opening the way for the implementation of the government reform.<sup>466</sup> Fixed salary expenses amounted automatically to \$39,880 to cover the salary increase for the director of the agency (from \$2,500 to \$7,000), the appearance of the post of sub-director (with \$6,000 annually), the appointment of two section chiefs (\$4,800 each), plus the salaries of the 10 officials of different rank (two firsts, two seconds, two thirds and four quarters) with a total of \$16,640. The boost also benefited the doorman, who saw his salary increasing from \$600 to \$840 per year. This change made a significant progress in terms of budgetary accuracy and clarity possible, especially due to the disappearance of bonuses and specific allocations. By extension, the distinction between fixed and variable costs tended to be administratively more representative of the operation of the Office.<sup>467</sup>

Although the government maneuver was successful, obtaining the necessary resources to implement the reorganization, the informality of the procedure left open a flank that soon became complicated. This happened during the discussion of the annual budget for 1910, when this mechanism was once again used to expand the staff roster and raise the salaries of the existing employees. This measure was the first manifestation of the change in the direction of the Statistics Office following the death of Vicente Grez in 1909, months after the promulgation of the reform described above. His successor, Francisco de Bèze, mentioned for his role in the

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<sup>465</sup> *Ley de presupuestos de los gastos generales de la administración pública de Chile para el año de 1905* (Santiago: Imprenta Nacional, 1905), pp. 70-71. Total variable expenses for that year amounted to \$ 30,380, so the amount allocated to bonuses and allowances (\$ 7,080) accounted for more than 23 percent of that item. Variable expenses also approved a line of \$ 100,000 for the preparation of the 1905 census, which were not included in this calculation for its circumstantial nature.

<sup>466</sup> SCN, Senate, session 8 (extraordinary), October 29, 1908, pp. 245-246 and Chamber of Deputies, session 49 (extraordinary), January 28, 1909, pp. 1.443-1.444.

<sup>467</sup> To track this process of increasing budgetary accuracy, see *Ley de presupuestos... para el año de 1908*, *Ley de presupuestos de los gastos generales de la administración pública de Chile para el año de 1909* (Santiago: Imprenta Nacional, 1909), pp. 58-59 and *Ley de presupuestos de los gastos generales de la administración pública de Chile para el año de 1910* (Santiago: Imprenta Nacional, 1910), pp. 56-57.

modernization of criminal statistics, had set out to strengthen the territorial scope of the organization and reinforce the payroll. His concerns came before the Joint Commission of the National Congress, which studied the draft annual budget, and incorporated a substantial modification of the original budget sent by the Executive. Along with significant salary increases for upper management positions, the number of mid-ranking officers was increased to 17 (the previous reform had raised them to 10) and four new officials were added: a clerk with library functions, two statistical inspectors in charge of supervising the works in the field, and a messenger. As a result, salary expenses rose to \$85,660, more than double than the required for the reorganization of 1909 (\$39,880). Viewed in the total budget (adding fixed and variable costs), this implied a rise of close to 50 percent of the total approved in recent laws.<sup>468</sup>

Conservative Party Senator Joaquín Walker Martínez raised the warnings regarding the informality of the procedure. While he did not discuss the substance of the amendment, he disagreed that the statistical budget should be increased by means of last-minute indications, as had been done two years earlier, thus postponing the discussion of the real problem. “Year by year, the salaries of the Statistics Office have increased in the budget [...]. Why does the Government not present a project to reorganize this service? This would avoid new proposals for salary increases in the coming years,” he said. This opinion, which coincided with the majority of the Senate, motivated the rejection of the indication of the Joint Commission and the approval of the budget originally sent by the Government, which reinstated the amount approved in the budget of 1910.<sup>469</sup> From that moment the interventions accelerated. The rejection of the Senate forced the Ministry of Interior to order the preparation of a new project to be processed as a separate law, hoping that the initiative would be approved in parallel or before the closing of the budget discussion. However, that action did not take into account that the scenario could get even more complicated. The modest but active networks woven at the eve of the de-concentration of the statistical system understood that a new project of reorganization could lead to the rehabilitation of the theses of re-concentration. As their positions could be affected, they began a covert campaign to block the processing of the initiative.

To understand such covert campaign, it is important to look at the budgetary implications of the sectorial de-concentration process. Forged in an inorganic and cumulative manner, such

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<sup>468</sup> SCN, Senate, session 22 (extraordinary), November 23, 1910, pp. 483-484.

<sup>469</sup> *Ibidem* and session 23 (extraordinary), November 28, 1910, pp. 499-500.

de-concentration had ostensibly raised the overall budget devoted to statistical research, although none of those resources had had an impact on the Central Office budget. Thus, under the administration of their respective ministries, specialized offices had become improvised sources of bureaucratic posts, giving way to discrete but not less coveted networks of clientelist employment. It was undeniable that national statistics were operating with two separate budgets: that of the central office, fixed in 1847 and informally inflated through the annual budget laws, and that of sectorial offices, broken down into the items assigned to each ministry and whose calculation, for that matter, had become elusive.

Although a substantial critique of the economic consequences of de-concentration had not appeared until 1910, some symptoms had been detected. One of them dates from the end of 1908, when the Executive asked Congress to approve a bill authorizing the investment of \$5,000 in the hiring of auxiliary officers to process the forms of agricultural statistics of 1908. As a result of the legislation adopted at the beginning of the same year, the Information, Statistics and Agricultural Publications Section of the General Inspectorate of Agriculture had received an important volume of documents its regular staff (at least as indicated in the processing) was not able to process with the required celerity. The situation was delicate, because it was estimated that with the available personnel this information could only be revised within eighteen months, while the term was reduced to six with the hiring of auxiliaries. In response to this irrefutable argument, Congress decided to approve the bill, but not unanimously. In the Senate, for example, some voices emerged that objected to the proposal by intuiting that it would naturalize an inorganic and unproductive path of bureaucratic growth.<sup>470</sup> As can be seen, the problem was far from being reduced to informality in the processing of budgets or to the amount of adjustments required for the Statistics Office staff. No less important was the disbursement of resources imposed by the inorganic multiplication of specialized offices, which had ostensibly raised the aggregate State investment in the production of statistical knowledge.

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<sup>470</sup> José Elías Balmaceda, brother of the defeated president in the 1891 Civil War, clinging to a somewhat nostalgic impression of the nineteenth-century statistical system, denounced the erratic course that the service had adopted, which was aggravated by the adoption of measures such as this. In this regard, he said: "I believe that in this matter we must adopt a procedure that means progress, at least in our administrative habits; if the old system was good and there was statistics, I think we should go back to it, and the way to do it is not to continue facilitating this endless creation of posts and salaries, which increases public spending on a daily basis and renders people useless, since they will live only on the revenues of the State." SCN, Senate, session 30 (extraordinary), December 30, 1908, pp. 901-902. Also Chamber of Deputies, session 29 (extraordinary), December 7, 1908, pp. 774-775.

After the discussion of the indication of the Mixed Commission in the Senate, the debate was transferred to the Chamber of Deputies. Key in this instance was the intervention of the parliamentarian Alberto Edwards, who in between had been summoned by the government to prepare the project of reorganization of the statistical service. Edwards, as will emerge, will play a crucial role as advocate for such an initiative in Congress, and his interventions will account for a superior level of knowledge than that of his peers regarding the State of national statistics.<sup>471</sup> Indeed, he was who produced the first general critique of the consequences of the inorganic process of de-concentration. In the midst of his efforts to expedite the approval of the initiative, Edwards slipped through a lapidary diagnosis and a troubling observation: “Little by little, by indication from some deputies or ministries, different offices have been established, which are in charge of statistical services; and there are now more than twenty offices of this kind, independent of each other, whose functions, determined without order or plan, give no result. In this way, with a considerable cost which reaches four hundred thousand pesos a year, we have a terrible statistical service.” But the problem was deeper. Although the project he had helped to draft offered an alternative to reverse this situation, his sending to Congress had been delayed by some pressure exerted by those who felt “hurt in their salaries or their jobs.” In effect, although the initiative had been approved by the State Council, the Executive had chosen to file it. When asked to identify who was slowing down the process, Edwards did not hesitate to syndicate the principal, but not sole responsible: “It is the head of the Office of Agricultural Statistics who has hindered it the most.”<sup>472</sup>

The itinerary followed by the government’s initiative suggests that these pressures, at least during the critical stage of the budget discussion, were effective.<sup>473</sup> The process of reorganization was finally postponed to the next legislature, inaugurated in June 1911, this time with the support of Edwards himself, who at the request of the Executive went on to lead his defense in both chambers. The overall discussion of the project, until the promulgation, took

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<sup>471</sup> This experience paved the way for his subsequent appointment as General Director of the Central Statistics Office, a position he held between 1916 and 1925.

<sup>472</sup> SCN, Chamber of Deputies, session 52 (extraordinary), January 18, 1911, pp. 1.549-1.550.

<sup>473</sup> This is also confirmed by the fact that the item allocated to the Statistics Office for that year was similar to that of 1910, certainly lower than the indication of the Mixed Commission (*Comisión Mixta*). *Ley de presupuestos de los gastos generales de la administración pública de Chile para el año de 1911* (Santiago: Imprenta Nacional, 1911), p. 58.



almost five months and consumed several hours of discussion.<sup>474</sup> But this was not a consequence of the density of the congressmen's interventions or the discussion of politically relevant issues. Compared with the contentious discussion that led to the promulgation of the 1847 law, the 1911 debate was washed out, flat and even futile. Almost all interventions touched on marginal aspects of the law or were paralyzed in the clarification of budgetary minutiae. Not even in the discussion of the fate of the sectorial offices substantive problems or digressions regarding the administrative philosophy that sustained the project emerged. This, which at first sight can be understood as an expression of a promising consensus, was rather a symptom of analytical impoverishment. Parliamentarians clearly exhibited their total ignorance of the practical scope of statistical work. For the same reason, the participation of Alberto Edwards had to do more with the erosion of legislative inertia rather than with the political defense of the initiative. While everyone agreed on the importance of this science as an input for good government, no one, except for Edwards and perhaps a couple of congressmen, seemed interested in discussing under what conditions such knowledge had to be produced. The reports that preceded the discussion of the project are, therefore, the best approximations to the rationality of the initiative.<sup>475</sup>

Attuned with Edwards' critical views on the course adopted by the service, the first objective of the project was to reverse the "bewilderment and anarchy" generated by the multiplication of offices, expenses and salaries. This situation kept scattered and without communication the few competent officials around, and had also resulted in a policy of uncoordinated and useless publications, which accumulated figures "without method or science" and produced statistical charts of little practical value. The main correction to this unproductive consumption of resources was the reconsolidation of the service, which meant repositioning the General Directorate of the Office as the main instance of technical and editorial supervision. As a result, most of the specialized statistical offices –agriculture, labor, education and crime– as well as statistics produced by State-sponsored business associations, had to be re-concentrated in that instance, thus reversing the process of autonomization. Customs and railroad statistics (labor statistics was added later) were the only ones exempt from this absorption because of the more dense administrative relationship they maintained with their respective ministries. However, this

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<sup>474</sup> The discussion in the Chamber of Deputies was held between July 13 and August 10, 1911, for six sessions; in the Senate, the process was extended for 11 sessions, between August 21 and November 28, 1911.

<sup>475</sup> In what follows, I take as reference the report of the Commission of Government that preceded the particular discussion of the project. SCN, Chamber of Deputies, session 16 (ordinary), July 13, 1911, pp. 519-522.

did not exempt them from complying with the technical supervision and editorial direction of the central office.

The scope of this re-concentration was beyond and above the Office's bureaucratic capacity. Therefore it was stated that the new functions could only be attended by the expansion of the regular staff to 62 officials (the regulation of 1909 named 15) and by reorganizing the investigations with the establishment of a fourth thematic section, which would emerge of the separation of the statistics of Finance from those of the economic area. This general reorganization, it was argued, addressed both the theoretical foundations of statistics (since it recognized its modern thematic divisions) and the administrative means effectively available to make it possible. Although at first glance such a bureaucratic enlargement seemed burdensome, in practice it was not. The total cost of the statistical service in the de-concentrated scheme, that is, the sum of the budgets of the central Office and the specialized offices, amounted to \$301,348 per year. On the other hand, the budget of the project of the Government Commission, considering the salary of the 62 employees and variable expenses destined to lease office space, publications, supplies and others, amounted to \$328,780.

This explosive growth of the staff sought, of course, to absorb the eventual centralization of the work of the existing offices, but also to solve the recurrent problem of nineteenth-century statistics: the territorial organization of data collection. As part of the de-concentration process, a large contingent of inspectors had emerged to standardize and direct the work on the ground, especially of the fiscal and municipal treasurers. Regarding salaries and instructions, these positions depended on the sectorial statistical offices. However, as had happened with the provincial officials system, the surveillance capacity of these functionaries had been diminished by the fact that they were consumed by the sedentary work of their respective offices; they tended to operate in isolation, without contributing to the territorial coordination of the statistical production.

As the re-concentration scheme involved the absorption of specialized offices, it was urgent to rethink the coverage issue. To that end, one of the ideas outlined by Grez in 1897 re-emerged, proposing the division of the national territory into ten statistical zones, each one with an inspector dedicated to supervise the data-gathering processes at local level and to certify that individuals provided information. These officials were intended to visit their jurisdictions at least twice a year, residing for several days in each municipality. To avoid the problems that ended

with the repeal of provincial statistics officials, these inspectors would not reside in their respective districts, but in Santiago. As indicated by the Government Commission, experience had taught to “be suspicious of officials resident in the provinces, without direct contact with their superiors, and surrounded by the most appropriate means to lose all discipline and to forget or not to acquire technical knowledge.”<sup>476</sup>

While it was hoped that this administrative re-concentration would in itself contribute to the recovery of the information flows necessary to re-issue the glorious years of the *Anuario Estadístico*, it was understood that the quality of this publication –and of the statistical work in general– also depended on facing a postponed problem: the weak technical preparation of statistics officials. This was undoubtedly one of the most critical (and absent) issues of the successive reorganization projects and it was addressed here for the first time. The project included the hiring of a technical consultant to provide periodic lectures to the staff of the Office and to conduct a statistics course in a public institution defined by the authorities. As it was assumed that this position should be entrusted to a foreigner, it was proposed that his remuneration be paid in gold. It was also proposed that this consultant serve as representative of the Government of Chile in the international congresses of the discipline, keeping thus the Statistics Office in tune with the latest advances in this science.<sup>477</sup>

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<sup>476</sup> *Ibid.*, p. 521.

<sup>477</sup> *Ibidem*. The profile and functions of the technical consultant was one of the most discussed topics in the initial discussion in the Chamber of Deputies. A conflicting point was the definition of the institution where this official had to teach his course on statistics, either in the University of Chile, given the high education level required for this training, or in the Higher Institute of Commerce, because there the middle and lower cadres of the Office were supposed to be formed. On the other hand, some parliamentarians expressed their disagreement on the distinction between the post of General Director of the statistical service, with administrative functions, and that of technical consultant, with strictly scientific functions. According to their opinion, the position of Director should be entrusted to someone with knowledge on statistical science, otherwise this could mean opting for a duplicity that would overload the treasury and make the administrative position almost irrelevant. Whether national or foreign, it was in the highest authority of the Office that the administrative and technical skills were to be found and not in two separate positions. I transcribe here the arguments with which Alberto Edwards defended the existence of both positions. On the one hand, they record the opinion of an informed voice regarding the state of the statistical training and, on the other hand, account for the persistence of patrimonial criteria in the appointment of high-ranking administrative positions: “We do not really have knowledgeable people in the field of statistics in Chile. The science of statistics tends to become uniform throughout the world. This is an entirely new service for us: it is related to customs, industry, demography and many other matters. To keep this service up with its challenges it is needed, besides an administrator, a man of science, because rarely one person has the administrative skills and the scientific and technical knowledge required for leading such an important service as the one this project seeks to establish. Because it is natural that the direction of the Statistics Office is in charge of a highly esteemed person in our society, of someone who enjoys administrative credibility and a certain position within our governmental ranks.” SCN, Chamber of Deputies, session 27 (ordinary), August 4, 1911, p. 910.

This was the project that, with slight modifications, resulted in the Reorganization of the Statistical Service Act of December 7, 1911. In its final version, the law ended up consecrating the existence of five statistical sections: 1) geography and demography; 2) politics and administration; 3) public finance; 4) economy, and 5) agriculture.<sup>478</sup> For reasons of economy some low ranking officials proposed in the original version were dispensed with, and salary distinctions were established among district inspectors. The Central Statistics Office, that was its new main (symbolically reinforcing its positioning), eventually consisted of 56 staff members and came to manage a fixed annual budget six times higher than that approved in the 1909 reform. It again had a network of officials dispersed throughout the territory –albeit this time with a central anchorage– and revitalized the editorial policy developed in the years of consolidation of the service.

It was with this institutional physiognomy that the Central Statistics Office formally entered the twentieth century, challenged by the need to respond to different problems from those that formed its first research agenda in the mid-nineteenth century. In those formative years the surveys were still tied to the questions and classification categories inherited from eighteenth-century naturalists, and the description of a still-elusive landscape seemed to be the best gateway to the knowledge of social mechanisms. But events between 1847 and 1911 made this scheme obsolete. Territorial expansion and stabilization of the map; economic modernization, with an increasing urbanization and the emergence of an industrial sector; the pressing “social question” that fueled the conflict between capital and labor, to name but a few phenomena, changed the questions which official knowledge had to address. Statistics, a field in permanent dispute, had thus to reorient its emphasis to produce the inputs that will enable the social intervention of the State in the twentieth century.

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<sup>478</sup> The main modification to the original project was the creation of the agricultural section, which initially was a subsection of economic statistics. Deputy Pedro García de la Huerta, a well-known farmer and liberal politician, forced this changed by means of a last-minute indication. SCN, Chamber of Deputies, session 29 (ordinary), August 10, 1911, p. 950. It was also decided to discard the centralization of the statistical functions of the *Oficina del Trabajo*, which remained independent from the economic section. SCN, Chamber of Deputies, session 27 (ordinary), August 4, 1911, pp. 907-908. For some references on the defense of the autonomy of labor statistics, see the intervention of deputy Malaquías Concha, militant of the Democratic Party, at the session 20 (ordinary) on July 19, 1911, pp. 673-675.

## Conclusion

The trajectory of the first Chilean statistical project covers a period of almost seven decades. Its beginning was the establishment of the Statistical Office in 1847, which centralized the production of official numbers until the entire reorganization of the service in 1911 –with a substantial crisis in between. Although the institution underwent numerous transformations throughout this period, these did not denote a formal distancing from the bureaucratic and territorial logics that defined its initial profile. Independent of the specific measures adopted at specific junctures –the creation and suppression of posts, the expansion of the scientific research agenda, even the process of de-concentration occurring toward the turn of the century– between 1847 and 1911 national statistics were organized along a single scheme, of a hierarchical and monocentric nature, which sought to reinforce the centralist leaning of the political system and to contribute to the territorial anchorage of the State. This continuity shows several statistical and institutional achievements, but it also counts as the origin of a series of tensions and conflicts that explain the crisis of that model and its replacement with a more robust institutional framework toward the early twentieth century.

Regarding achievements, the nineteenth-century statistical project has a relatively successful record. In terms of editorial and publishing policy, the 28 volumes of the *Anuario Estadístico* published between 1860 and 1895 constitute a colossal library that in its more than 15,000 pages registered unlike any other document of the period the demographic, territorial and economic transformations of the Republic during its modernization phase. As an editorial project, the *Anuario* also represented a persistent effort to acclimatize the production of a State knowledge that appealed simultaneously to the scientific and political fields, and the enlightened

citizenry as well. While on the one hand this contributed to institutionalizing the relationship between specialized knowledge and political practice, on the other it legitimized the need for State administration to comply with rational planning criteria –defined here by the statistical reasoning–, and to expose those criteria to public scrutiny. It is undeniable that the publication had serious limitations, an aspect the Statistical Office always recognized, but its trajectory represents an inescapable chapter in the history of the links between State management and knowledge. The same holds for the public nature of statistics, since this annual socio-economic cadaster, besides being a scientific product, was also seen as a relevant input for public discussion and the questioning of political authorities. If the *Anuario Estadístico* was basically the means of communication of a State office charged with scientific tasks, the nature of its contents placed it in a more complex and disputed political scenario - and that made it a capital work within the repertoire of State-supported publications of the nineteenth century.

Similar achievements can be detected in the light of the progressive internationalization of national statistical research since the 1860s. The *Anuario Estadístico* played a key role as a testimony of the Chilean state capacity to generate knowledge that meets the global standards of this science. The establishment of cooperation and bibliographic exchange programs with foreign institutions enabled the integration of local scientific production into the international networks of knowledge circulation, opening up spaces for dialogue and political recognition that ran in parallel and in tune with formal diplomacy. This process also had important consequences in the territorial organization of the Statistical Office's investigations, since the assimilation of international scientific standards operated as a permanent pressure for the improvement of the data collection process in provincial administrative spaces. In this sense, the internationalization of Chilean statistics –formalized through bilateral agreements and reinforced by the adoption of policies stemming from the international congresses of the discipline– found an indispensable instrument in the *Anuario Estadístico*. The permanent interaction between the global trajectory of this science and the local organization of administrative resources to produce it can be neatly traced in this text. Albeit this publication and the nineteenth-century Chilean statistical project suffered the same fate, expressed in the deterioration of its quality and the interruption of its regularity, the Statistics Office never gave up on the principle of publicizing its research. Proof of this was the appearance of complementary publications that later became substitutes for the

*Anuario*, such as the *Sinopsis estadística y geográfica de Chile*, which during the critical years of the service filled the void left by the temporary suspension of the main yearbook.

Another legacy of the nineteenth-century statistical project was the consolidation of a census tradition. In the period covered in this dissertation, a total of nine population censuses were carried out –in 1813, 1835 (compilation of censuses made in 1831 and 1834), 1843, 1854, 1865, 1875, 1885, 1895 and 1907– of which six were directly supervised by the Statistical Office. Although the 1843 census was applied in parallel to the provisional organization of the Office, and its first director was in charge of systematizing the results, the executive capacity of the Statistical Office was properly felt in the 1854 census. This explains why this was the first census with effective national coverage and also the first to measure quite precisely the literacy level of the population, a crucial and until then unknown fact. From this episode onward a modern census tradition began to take shape, characterized by compliance with the ten-year periodicity principle, the simultaneous application of the survey throughout the territory (using uniform questionnaires and universal data collection methods), and the existence of a specialized institution, nationally recognized as the only one responsible for coordinating and validating the process. Although no census after the 1854 experience went free of critiques and questioning, these operations were nevertheless regularly verified and took place within the margins foreseen by the Statistical Office planning, even at the critical stage around the turn of the century, when its executive capacity showed clear signs of exhaustion. Furthermore, population censuses appear as the only statistical investigations that were relatively immune to the problems of territorial articulation that affected the regular surveys. Perhaps in this matter one may distinguish certain organizational learning process, since censuses were one of the most relevant legacies of the nineteenth-century statistical project for the statistics of the twentieth century.

The balance of the period 1847-1911 confirms that, despite the operational difficulties, some material constraints, and the challenges of fieldwork, statistics were validated both as an indispensable knowledge for the administration of the State and as an institutional field with a distinctive profile. This cannot be considered as a merely formal or rhetorical recognition arising from the global legitimacy achieved by this administrative science during the nineteenth century. With all its precariousness, Chilean statistics were far from being a scientific novelty without bureaucratic correlation. This was a stable institutional project that managed to claim a space in the definition of government policies; it did not gravitate around individualities, but around a

permanent research agenda; and all its organizational learning was indispensable when discussing the alternatives for improving the service. The main reorganization projects reviewed in this dissertation –those of José Francisco Vergara in 1882, of José Manuel Balmaceda’s government in 1888, the transitional measures Vicente Grez proposed in 1897, and the project which led to the general reform of 1911– account for the cumulative impact of that experience. The institutional breakdown of the nineteenth-century statistical system, which can be explained by the transformations experienced by the country rather than by the inefficiency of the institution in charge, does not weaken these achievements. Ultimately, neither the relevance of this knowledge nor its usefulness for governmental action was under question when the 1911 reform was discussed. At that point, the problem was to update the statistical system according to the demands of a society and a State that had to pose different challenges from those pursued by nineteenth century political actors.

All this, however, cannot lead us to ignore the extent of the conflicts and tensions that conditioned those achievements, since they also explain the crisis of the nineteenth-century statistical project –at least within the terms in which it was conceived in the mid-nineteenth century. Considering these pitfalls and setbacks opens highly productive dimensions to understand the critical knots of the State’s territorial anchoring process, as well as the administrative challenges the domestication of a science like statistics entailed.

One of the most interesting episodes reviewed in this dissertation was the configuration of the State’s informational monopoly on statistical patrimony. The growing conflicts between the State and the Catholic Church over the control of demographic records express the institutional and social implications of this effort. The initial State strategy was to colonize and instrumentalize the ecclesiastical bureaucracy, since the Church was the only institution capable of sustaining a ubiquitous territorial gear in the origins of the Republic. But that was gradually displaced by open confrontations between civil and religious authorities, which in turn were the result of overt State attempts to turn the clergy into informal agents of the secular power. Precisely when the lay provincial bureaucracy began to show signs of entrenchment, and when statistical expectations passed from the rhetoric of the possible to the rhetoric of necessity, the State began to dispute the legitimacy of the parish priest as a collector and custodian of vital information to put the network of civil servants in their place. This replacement fostered the delimitation of both powers, civil on the one hand and ecclesiastical on the other, and the



production of statistics emerged as a central symptom of a new type of relationship between both and between them and the population. Although the promulgation of the “secular laws” during the 1880s can be understood as the crowning achievement of the State initiatives in this area, the analysis of the conflicts that preceded them seems more relevant. Those confrontations testify to the efforts made to forge a monopoly that did not exist in the first half of the nineteenth century, and how that was achieved by co-opting and then replacing the administrative channels of the only institution capable of mounting an equivalent bureaucratic machine.

Similar objectives were pursued by means of the initiatives aimed at strengthening the legitimacy of State bureaucracy vis-à-vis sectorial interests. The de-concentration of the statistical system detected at the turn of the century certainly contributed in the long term to the consolidation of specialized research in areas such as agriculture, mining, labor and trade. Although that process may seem the result of private interventions, it was indeed more tied to early State incursions that were part of the forging of an official monopoly. Several of these incursions were deployed in the formative years of the statistical system and already at that time sparked the conflicts that one can see replicated throughout the century. For the resistance of Catholic Church officials to the State monopoly on demographic information had remarkable counterparts in the economic arena, as in the cases of landowners and mine managers, who for decades remained indifferent and were even hostile to the State’s push for statistical normalization. The difficulties in gathering agricultural data were present during the entire century. The case of the Central Board of the Cadastre in the 1830s represented the first and one of the most dramatic failures in the history of national agricultural statistics, and even at the beginning of the twentieth century it was possible to find harsh judgments on the accuracy of its measurements. This case and many others illustrate how private actors obstructed the development of sectorial statistics. These tensions are not only crucial for assessing the trajectory of each statistical branch, but also for explaining why the local statistical design tended to dispense with (and distrust) civil participation in the conduct of its research. Unlike the Belgian model, for example, which relied on active citizen participation, the Chilean system early on assimilated the impossibility of entrusting this type of research to private actors, preventing the potential distortion or manipulation of official figures. Such learned distrust, which was also fueled by the weak civic participation of the provincial and departmental elites in the first

Republican censuses, reinforced the option for the monocentric and bureaucratized institutional design installed after the Civil War of 1830-31.

Of course, these conflicts not only confronted the State with business guilds and the influential citizens of each administrative unit, but also generated frictions within the public administration, and particularly between the Executive and the National Congress. The most complex aspect of that relationship arose from the close link between statistical research and the representative system, as legislation tied the allocation of parliamentary quotas to the number of inhabitants of each department. The impact of the censuses results on the political balances within Congress became yet another focus of questioning of the State's information monopoly. The fact that several departments organized parallel counts in order to expose the inaccuracy of official censuses eventually called into question the entire statistical system. Political parties (defied by an increasingly competitive electoral system), provincial authorities appointed by the Executive (which at times seemed to be overtaken by unforeseen local arrangements), and swaying departmental elites (divided between the electoral machines mounted by the ruling party and the oppositions of the day) were recurrent actors of the conflicts that saturated the administrative arena.

In the backroom of these conflicts lay another relevant actor, the point of departure and arrival of the entire statistical service, on which ultimately depended the process of transferring information capital to the State archives: the population. While the State had to make enormous efforts to discipline the ruling classes in its attempts to forge its monopoly, the various forms of resistance opposed by the proletarian classes in the city and the countryside formed another irreducible frontier for government intervention –especially on the occasion of population censuses. A heterogeneous reality, reluctant to standardization efforts, made it clear the limits of this scientific practice. Although the authorities tended to simplify these rejections by representing them as expressions of ignorance and unjustified fears, their recurrence brings new angles to how exactly statistics strained the relationship between State and population. The resignation with which a stable percentage of census omission was assumed throughout the nineteenth century (10%) was much more than a State recognition of administrative limitations. That percentage also represented those who were left out of measurement efforts not for governmental ineffectiveness, but for the rejection or open indifference to State action.

Nevertheless, the most pressing of all the problems identified, and with which those mentioned above converged to some extent, concerned the complex territorial anchoring of statistical investigations. Given the close dependence between statistical service and political-administrative design, the question of how to set up an information system that is territorially extensive and entrusted to a ubiquitous, predictable and well-prepared bureaucracy constituted a recurrent problem throughout this period. The institutional responses to that challenge were varied. Although the trajectory of statistical production during the nineteenth-century was organized under a monocentric scheme of data circulation, there were alternatives. The forgotten experience of the 1820s, which tended to decentralize national statistics with the assistance of Provincial Assemblies, or the discussions at the end of the nineteenth century when the emergence of the local power agenda elevated municipalities as a new hub of information gathering, are paradigmatic cases of the profound institutional and territorial implications of the production of statistical knowledge. Even the solution implemented after the reorganization of 1911, which divided the country into ten zones overseen by inspectors residing in the capital, illustrates the relevance of the spatial factor as a critical knot of the republican project.

Undoubtedly, the consolidation of the Statistical Office coincided with the designation of provincial statistics officials for each administrative unit. At least since 1855, when this post was created, until the mid-1880s, when it was finally abolished, almost all the burden of the statistical system rested on the labor of these agents in charge of reproducing in the administrative peripheries the policies outlined by the central office. The glory years of the *Anuario Estadístico*, as well as the consolidation of the census tradition after the 1854 count, are proofs of the critical role these officials played in the laborious process of territorial anchoring of these investigations. In this respect, the deep crisis experienced by the service toward the end of the nineteenth century derived to great extent from the disruption of that national network of representatives. Without their assistance and with no effective replacement, the republican statistical project was unable to overcome the profound territorial, economic, political and administrative transformations brought about by the turbulent 1880s.

This largely unrecognized plurality of administrative designs was also expressed in the foci of statistical research. The first institutional project was conceived to produce the “general statistics of the Republic,” which responded to the aspiration of implementing a common research program on the different administrative units into which the national territory was

divided. This strategy sought to produce equivalent and comparable provincial portraits, the starting point for the generation of synthetic reports on the national reality. Although sometimes the Statistics Office came close to accomplishing that task, as in the 1870s when provincial officials began to submit the reports subsequently included in the *Anuario Estadístico*, in the long run that goal proved elusive and “general statistics” remained one of the unfulfilled promises of the Republican statistical project. Furthermore, at a time when the monocentric arrangement showed signs of incapacity or withdrawal, this aspiration became overshadowed by the emergence of sectorial research agendas that were not always in tune with the overall statistical project. This happened in the 1840s, when judicial, commercial and medical statistics began to define autonomous production protocols in the face of the weak take-off of the Statistics Office. With a different meaning, the situation repeated itself at the end of the nineteenth century, when the service’s crisis gave way to an inorganic process of de-concentration that led to the multiplication of specialized statistics offices and the proliferation of reports published according to criteria that precluded any synthesizing effort. The purpose of the 1911 reform, aimed at strengthening the coordination and monitoring capacity of the Central Statistics Office, reflects how problematic that outcome had been. Thus, although the development of sectorial statistics was a key element in the general acclimatization of this science, these trajectories did not always count as part of the consolidation of the republican statistical project, and were even perceived as a threat to this horizon, as it happened toward the turn of the century, given the risks that such fragmentation posed to the legitimization of the monocentric scheme.

In sum, the trajectory of the Republican statistical project during the nineteenth century offers numerous clues for tracing the close links between State knowledge and the territorial organization of the bureaucratic resources that produce it. This dissertation sought to demonstrate the complexity of the administrative decisions that made possible to generate a knowledge, considered essential for the staging of republican modernity. Certainly, this perspective does not do full justice to the problem, but its details contribute to understanding the relationship between the State and its knowledge not from the most frequent and simplified assumption –that all knowledge is power– but from a viewpoint that seeks to explain how efforts to raise, accumulate, process and disseminate information impact on the organization of institutions, on the conflicts they face, and on the territorial anchorage of certain administrative practices. Hence the importance of approaching the history of statistics from an institutional perspective that explains

to what extent the production of knowledge also opens the door to conflicts that do not necessarily result in the strengthening of the State's intervention capacity.

## Bibliography

### 1. Primary Sources

#### 1.1. Archives and Collections

##### Archivo Nacional Histórico de Chile (Santiago)

Dirección General de Estadísticas  
Fondo Varios  
Fondo Antiguo  
Intendencias  
Ministerio de Educación  
Ministerio de Hacienda  
Ministerio del Interior

##### Archivo Nacional de la Administración – Archivo Siglo XX (Santiago, Chile)

Ministerios y Servicios Públicos, Ministerio del Interior

#### 1.2. Newspapers and Journals

*El Araucano*, Santiago, Chile (1830, 1831, 1833, 1835, 1836, 1837, 1842, 1843, 1844, 1849, 1850, 1852, 1856, 1864)

*El Crepúsculo*, Santiago, Chile (1843, 1844)

*El Ferrocarril*, Santiago, Chile (1868, 1876, 1888, 1895)

*El Mercurio*, Valparaíso, Chile (1868, 1875)

*El Monitor Araucano*, Santiago, Chile (1813)

*El Progreso*, Santiago, Chile (1843, 1844, 1845, 1850)

*El Repertorio Americano*, Londres, Inglaterra (1826, 1827)

*El Verdadero Liberal*, Santiago, Chile (1827)

*Gazeta Ministerial de Chile*, Santiago, Chile (1818)

*La Abeja Chilena*, Santiago, Chile (1825)

*La Aurora*, Coquimbo, Chile (1895)

*La Aurora*, Santiago, Chile (1827)

*La Clave*, Santiago, Chile (1827, 1828)

*La Década Araucana*, Santiago, Chile (1825, 1826)

*La Gaviota*, Curanipe, Chile (1895)

*La Revista Católica*, Santiago, Chile (1863)

*Revista de Ciencias y Letras*, Santiago, Chile (1857)

*Revista Chilena de Historia y Geografía*, Santiago, Chile (1916)

*Revista de Santiago*, Santiago, Chile (1855, 1872)

### 1.3. Official Printed Publications

Sociedad Nacional de Agricultura (Chile). *Boletín de la Sociedad Nacional de Chile* (1869).

Chile, Archivo Nacional, *Censo de 1813. Levantado por Juan Egaña, de orden de la Junta de Gobierno formada por los señores Pérez, Infante y Eyzaguirre* (Santiago: Imprenta Chile, 1953).

Chile, *Boletín de la Exposición Internacional de Chile en 1875. Publicación Oficial de la Comisión Directiva*, 9 volúmenes (Santiago: Imprenta de la Librería del Mercurio, 1873-1876), Vol. 5.

Chile, *Boletín de las leyes y de las órdenes y decretos del gobierno* (1845-1911)

Chile, Congreso Nacional, *Sesiones de los Cuerpos Legislativos de la República de Chile. 1811*

a 1845 (Santiago: Imprenta Cervantes, 1887-1908), 37 vols.

Chile, Congreso Nacional, *Sesiones del Congreso Nacional* (1846-1911)

Chile, Dirección General de Contabilidad, *Resumen de la Hacienda Pública de Chile desde la Independencia hasta 1900* (Santiago, Imprenta Cervantes, 1901).

Chile, *Discursos de apertura en las Sesiones del Congreso y Memorias Ministeriales*, 9 volúmenes (Santiago: Imprenta del Ferrocarril, 1858-1861), Vols. 2-9.

Chile, *Ley de presupuestos de los gastos generales de la administración pública de Chile* (1845, 1849, 1878, 1882, 1899, 1905, 1906, 1908, 1909, 1910, 1911)

Chile, Ministerio de Hacienda, *Memoria que el Ministro de Estado en el Departamento de Hacienda presenta al Congreso Nacional de 1868* (Santiago: Imprenta Nacional, 1868).

Chile, Ministerio del Interior, *Memoria del Ministerio del Interior presentada al Congreso Nacional por el ministro del ramo en 1880* (Santiago: Imprenta Nacional, 1880).

Chile, Oficina de Estadística *Anuario Estadístico de la República de Chile* (1860-1895).

———, *Censo Jeneral de la República de Chile levantado en abril de 1854* (Santiago: Imprenta del Ferrocarril, 1858).

———, *Censo Jeneral de la República de levantado el 19 de abril de 1865* (Santiago: Imprenta Nacional, 1866).

———, *Estadística de la República de Chile. Provincia del Maule* (Santiago: Imprenta de los Tribunales, 1845).

———, *Noticia preliminar del Censo Jeneral de la República levantado el 19 de abril de 1875* (Santiago: Imprenta de la Librería del Mercurio, 1875).

———, *Quinto Censo Jeneral de la población de Chile levantado el 19 de abril de 1875* (Valparaíso: Imprenta del Mercurio, 1876).

———, *Recolección de datos estadísticos para la Oficina Central* (Santiago: Imprenta Nacional, 1874).

———, *Sexto Censo Jeneral de la población de Chile levantado el 26 de noviembre de 1885 y compilado por la Oficina Central de Estadística en Santiago*, 2 volúmenes (Valparaíso: Imprenta de “La Patria,” 1889).



———, *XII Censo General de Población i de Vivienda. Levantado el 24 de abril de 1952*, 6 volúmenes (Santiago: Servicio Nacional de Estadísticas y Censos, 1952).

Perú, Dirección Nacional de Estadística, *Estadística del Estado del Perú en 1878 a 1879 publicada por la dirección del ramo* (Lima: Imprenta del Estado, 1879).

Sociedad Rural Argentina, *Anales de la Sociedad Rural Argentina* (1867).

Universidad de Chile, *Anales de la Universidad de Chile* (1846, 1851, 1862, 1995).

## 2. Secondary Sources

Anguita, Ricardo (comp.), *Leyes promulgadas en Chile. Desde 1810 hasta el 1° de junio de 1912*, 5 volúmenes (Santiago: Imprenta, Litografía y Encuadernación Barcelona, 1912).

Archivo Nacional de Chile, *El Archivo Nacional. Antecedentes de su fundación y reseña de la labor realizada desde 1927 a 1945* (Santiago: s.p.i., 1946).

Arredondo, Horacio (ed.), *Los “Apuntes estadísticos” del Dr. Andrés Lamas* (Montevideo: Imp. El Siglo Ilustrado, 1928).

Balmaceda, José Manuel, “Mensaje presidencial de 1890,” in Rafael Sagredo and Eduardo Devés (comps.), *Discursos de José Manuel Balmaceda. Iconografía*, 3 vols. (Santiago: DIBAM, 1991-1992)

Barros Arana, Diego, *Un decenio de la Historia de Chile (1841-1851)*, 2 vols. (Santiago: Imprenta y Encuadernación Universitaria, 1905-1906).

———, *Historia general de Chile*, 16 vols. (Santiago: Editorial Universitaria, Centro de Investigaciones Diego Barros Arana, 2000).

Benavente, Diego José, *Opúsculo sobre la hacienda pública de Chile. Primer cuaderno* (Santiago: Cámara Chilena de la Construcción, Pontificia Universidad Católica de Chile, Biblioteca Nacional de Chile, 2010 [1841-1842, 2 vols.]).

Carmona, Manuel G., *Resumen de la estadística comercial de 1873 y de la estadística retrospectiva de 1844 a 1873* (Valparaíso: La Oficina, 1874).

———, *Apuntes estadísticos sobre la República de Chile* (Valparaíso: Imprenta del Universo de G. Helfmann, 1876).

Carrasco Albano, Manuel, *Comentarios sobre la Constitución Política de 1833* (Valparaíso: Imprenta y Librería del Mercurio, 1858).

*Colección de historiadores y de documentos relativos a la Independencia de Chile*, 43 vols. (Santiago: Imprenta Cervantes, 1900-1966).

Dauxion-Lavaysse, Jean Joseph, *A Statistical, Commercial, and Political Description of Venezuela, Trinidad, Margarita and Tobago* (Londres: C. and W. B. Whittaker, 1820).

De Guzmán, José Javier, *El chileno instruido en la historia topográfica, civil y política de su país*, vol. I (Santiago: Imprenta Nacional, 1834), vol. II (Santiago: Imprenta Araucana, 1836).

De la Sala, Joseph, *Visita general de la Concepción y su obispado por Fray Pedro Ángel de Espiñeira, su meritisimo prelado (1765-1769)*. Estudio preliminar, transcripción y notas de Jorge Pinto Rodríguez (Chillán: Ediciones Instituto Profesional de Chillán, 1986).

De Salas, Manuel, *Escritos de don Manuel de Salas y documentos relativos a él y su familia*, 3 volúmenes (Santiago: Imprenta Cervantes, 1910-1914).

De Solano, Francisco (ed.), *Cuestionarios para la formación de relaciones geográficas de Indias, siglos XVI/XIX* (Madrid: Consejo Superior de Investigaciones Científicas, Centro de Estudios Históricos, Departamento de Historia de América, 1988).

——— (ed.), *Relaciones económicas del Reino de Chile (1780)* (Madrid: Consejo Superior de Investigaciones Científicas, Centro de Estudios Históricos, Departamento de Historia de América, 1994).

——— (ed.), *Relaciones geográficas del Reino de Chile, 1756* (Santiago: Consejo Superior de Investigaciones Científicas, Universidad Internacional SEK, 1994).

Echeverría y Reyes, Aníbal, *Geografía política de Chile, o sea recopilación de leyes y decretos vigentes sobre creación, límite y nombre de las provincias, departamentos, subdelegaciones y distritos de la República*, 2 vols. (Santiago: Imprenta Nacional, 1888).

Egaña, Juan, *Almanak nacional para el Estado de Chile en el año bisiesto de 1824* (Santiago: Imprenta Nacional, 1824).

———, “Memorias de los servicios públicos del Dr. Don Juan Egaña,” *Escritos inéditos y dispersos*. Edición al cuidado de Raúl Silva Castro (Santiago: Imprenta Universitaria, 1949).

———, *Informe presentado al Real Tribunal de Minas* (Santiago: Gastón Fernández Montero Editor, 2000 [1803]).

Fuentes, Manuel Atanasio, *Estadística general de Lima* (Lima: Tip. Nacional de M. N. Corpancho, 1858).

Gay, Claudio, *Correspondencia de Claudio Gay*. Recopilación, prólogo y notas de Guillermo Feliú Cruz y Carlos Stuardo Ortiz (Santiago: Ediciones de la Biblioteca Nacional, 1962).

———, *Historia física y política de Chile*, Documentos I y II (Santiago: Cámara Chilena de la Construcción, Pontificia Universidad Católica de Chile, Biblioteca Nacional de Chile, 2009).

Gilliss, James M., *The U.S. Naval Astronomical Expedition to the Southern Hemisphere, During the Years 1849- '50- '51- '52* (Washington: A.O.P. Nicholson Printer, 1855).

*Guía Jeneral de la República de Chile correspondiente al año de 1847* (Valparaíso: Imprenta del Mercurio, 1847).

Lamas, Andrés, *Notice sur la République Orientale de l'Uruguay; documents de statistique concernant a la population indigene et le devetoppement de sa richesse* (París: Guillaumin et Cie., 1851).

Lastarria, José Victorino, *Obras completas de Don J. V. Lastarria*, 13 vols. (Santiago: Imprenta, Litografía y Encuadernación Barcelona, 1906-1913).

Latzina, Francisco, *Los censos de población* (Buenos Aires: Imprenta La Universidad, 1884).

Menadier, Julio, *Estadística comercial comparativa de la República de Chile* (Valparaíso: Imprenta y Librería del Mercurio, 1862).

Montt, Luis, *Bibliografía Chilena* (Santiago: Imprenta Barcelona, 1904).

Moreau de Jonnés, Alexandre, *Statistique de l'Espagne: territoire, population, agriculture, industrie, commerce, navigation, colonies, finances. Avec une carte* (París: Imprimerie de Cosson, 1834).

———, *Elementos de Estadística. Escritos en francés por Alejandro Moreau de Jonnés, traducidos libremente al castellano por Eugenio C. Sosa* (Lima: Impreso por José D. Huerta, 1854).

Ortega, Francisco, *Ensayo de una memoria estadística del Distrito de Tulancingo, impreso de orden del Exmo. Sr. Gobernador del Estado* (México: Imprenta del ciudadano Alejandro Valdés, 1825).

Pérez Rosales, Vicente, *Ensayo sobre Chile*. Introducción y notas de Rolando Mellafe (Santiago: Ediciones de la Universidad de Chile, 1986 [1859]).

Philippi, Rodulfo, *Viaje al desierto de Atacama* (Santiago: Cámara Chilena de la Construcción: Pontificia Universidad Católica de Chile: Biblioteca Nacional de Chile, 2009 [1854]).

Rojas Magallanes, Victorino, *La reorganización de la estadística* (Santiago: Imprenta, Litografía y Encuadernación Barcelona, 1907).

Samper, José María, *Ensayo aproximado sobre la geografía política y estadística de los ocho estados que compondrán el 15 de septiembre de 1857 la Federación Neogranadina* (Bogotá: Imprenta de “El Neo-granadino,” 1857).

Sève, Edouard, *Le Chili tel qu'il est. Publications officielles de la Commission Belge faites avec l'approbation de la Commission Directrice de l'Exposition Internationale du Chili de 1875* (Valparaiso: Imprimerie du Mercurio, 1876).

Urizar Garfias, Fernando, *Repertorio chileno. Año de 1835* (Santiago: Imprenta Araucana, 1835).

Vaillant, Adolphe, *Apuntes estadísticos y mercantiles sobre la República Oriental del Uruguay correspondientes a 1862* (Montevideo: Imprenta Tipográfica a Vapor, 1863).

Valencia Avaria, Luis (comp.), *Anales de la República*, 2 vols. (Santiago: Imprenta Universitaria, 1951).

### 3. Bibliografía

Amunátegui Solar, Domingo, *Don Francisco Solano Astaburuaga* (Santiago: Imprenta Cervantes, 1905).

Anderson, Benedict, *Imagined Communities. Reflections on the Origin and Spread of Nationalism* (London: Verso, 1991 [1983]).

Appadurai, Arjun, *Modernity at Large: Cultural Dimensions of Globalization* (Minneapolis: University of Minnesota Press, 1996).

Araya, Alejandra, “Registrar a la plebe o el color de las castas: ‘calidad’, ‘clase’ y ‘casta’ en la Matrícula de Alday (Chile, siglo XVIII),” in Alejandra Araya y Jaime Valenzuela (eds.), *América colonial. Denominaciones, clasificaciones e identidades* (Santiago: RIL Editores, 2010).

———, “La Matrícula de Alday (1777-1778): imaginarios sociales y políticos en el siglo XVIII americano,” in Grupo de Estudios en Historia de las Ciencias (eds.), *Control social y objetivación: escrituras y tránsitos de las ciencias en Chile* (Santiago: Universidad de Chile, 2012).

Arias Yurisch, Karina, “Revisión de las estructuras político-administrativas territoriales en el Chile del siglo XIX,” *UNIVERSUM* 25, no. 1 (2010): 44-59.

Arrijoa Díaz Viruell, Luis Alberto (ed.), *Registrar e imaginar la nación: la estadística durante la primera mitad del siglo XIX* (Zamora: El Colegio de Michoacán, 2016).

Barría, Diego, “Continuista o rupturista, radical o sencillísima: la reorganización de ministerios de 1887 y su discusión político-administrativa,” *Historia* 41, No. 1 (2008): 5-42.

Bayly, Christopher A., *Empire and Information: Intelligence Gathering and Social Communication in India, 1780-1870* (New York: Cambridge University Press, 1996).

Beaud, Jean-Pierre and Jean-Guy Prévost, “La experiencia estadística canadiense,” *Anuario IEHS* 14 (1999): 71-91.

Bourdieu, Pierre, “Rethinking the State. Genesis and Structure of the Bureaucratic Field,” en (ed.), *State/Culture. State-Formation after the Cultural Turn* (Ithaca: Cornell University Press, 1999 [1994, French]).

———, *Sur l'État, Cours au Collège de France (1989-1992)* (Paris: Raison d'agir/Seuil, 2012).

Bragoni, Beatriz and Eduardo Míguez (coords.), *Un nuevo orden político. Provincias y Estado nacional 1852-1880* (Buenos Aires: Biblos, 2010).

Braun Ll., Juan. *et. al.*, *Economía chilena 1810-1995: estadísticas históricas* (Santiago: Instituto de Economía, Pontificia Universidad Católica de Chile, Documento de Trabajo N° 187, 2000).

Bravo, Paulina and Andrés Estefane, “‘Vandalismo activo y vandalismo de inercia’. Notas sobre la problemática relación entre el Estado chileno y sus archivos (1847-1929).” Working paper presented at the seminar “Procesos de construcción estatal en Chile y Perú, siglo XIX,” Instituto de Historia, Pontificia Universidad Católica de Chile y Centro de Investigación y Documentación Universidad Finis Terrae (Santiago, May 2017).

Brendecke, Arndt, *Imperio e información. Funciones del saber en el dominio colonial español* (Madrid: Iberoamericana-Vervuert, 2012).

Burns, E. Bradford, *The Poverty of Progress. Latin America in the Nineteenth Century* (Berkeley: University of California Press, 1983).

Bustamante, Jesús, “¿Estadística o censo? La probabilidad como una cuestión política y moral,” in Jesús Bustamante, Laura Giraudó, and Leticia Mayer, *La novedad estadística. Cuantificar, cualificar y transformar las poblaciones en Europa y América Latina, siglos XIX y XX* (Madrid: Ediciones Polifemo, 2014).

Cházaro, Laura, “Imágenes de la población mexicana: descripciones, frecuencias y cálculos estadísticos,” *Relaciones. Estudios de historia y sociedad* 22, no. 88 (2001): 15-48.

Chiaramonti, Gabriella, “Buscando el ‘ciudadano’ virtuoso. El censo peruano de 1876 en el proyecto político de Manuel Pardo,” in Marcello Carmagnani (coord.), *Constitucionalismo y orden liberal: América Latina, 1850-1920* (Torino: Otto editore, 2000), pp. 9-50.

Chile, Instituto Nacional de Estadística, *Retratos de nuestra identidad: los censos de población en Chile y su evolución histórica hacia el bicentenario* (Santiago: Instituto Nacional de Estadísticas de Chile, 2009).

Cohn, Bernard S., “The Census, Social Structure and Objectification in South Asia,” en *An Anthropology among the Historians and Other Essays* (Oxford: Oxford University Press, 1987).

Cole, Joshua, *The Power of Large Numbers. Population, Politics, and Gender in Nineteenth-Century France* (Ithaca and London: Cornell University Press, 2000)

Collier, Simon, *Chile. La construcción de una república, 1830-1865. Política e ideas* (Santiago: Ediciones Universidad Católica, 2005).

Contreras, Carlos y Eduardo Cavieres, “Políticas fiscales, economía y crecimiento,” in Eduardo Cavieres and Cristóbal Aljovín (eds.), *Chile-Perú, Perú-Chile: 1820-1920. Desarrollos políticos, económicos y culturales* (Valparaíso: Ediciones Universitarias de Valparaíso, 2005).

Contreras, Juan *et. al.* *Fuentes para un estudio de demografía histórica de Chile en el siglo XVIII* (Concepción: Universidad de Concepción, Instituto Central de Historia, 1971).

Correos de Chile, *260 años del correo en Chile. 1747-2007* (Santiago: Correos Chile, 2007).

Couyoumdjian, Juan Ricardo, “Francisco Vidal Gormaz: su vida, su trayectoria profesional y la *Geografía náutica de Chile*,” in Francisco Vidal Gormaz, *Cartografía náutica de Chile* (Santiago: Cámara Chilena de la Construcción: Pontificia Universidad Católica de Chile: Biblioteca Nacional de Chile, 2013).

Craib, Raymond B., *Cartographic Mexico. A History of State Fixations and Fugitive Landscapes* (Durham and London: Duke University Press, 2004).

Cristino, Claudio, “Colonialismo y neocolonialismo en Rapa Nui: una reseña histórica,” in Claudio Cristino and Miguel Fuentes (eds.), *La Compañía Explotadora de Isla de Pascua. Patrimonio, memoria e identidad en Rapa Nui* (Santiago: Centro de Estudios de la Isla de Pascua y Oceanía, Universidad de Chile, 2011).

D’Allemand, Patricia, *José María Samper: nación y cultura en el siglo XIX colombiano* (Berna: Peter Lang, 2012).

De Castro Senra, Nelson, *História das estatísticas brasileiras*, 4 vols. (Rio de Janeiro: Instituto Brasileiro de Geografia e Estatística, 2006-2009).

De la Fuente, Ariel, *Children of Facundo. Caudillo and Gaucho Insurgency During the Argentine State Formation Process (La Rioja, 1853-1870)* (Durham: Duke University Press, 2000)

De la Peña, Sergio and James Wilkie, *La estadística económica en México. Los orígenes* (México D.F.: Siglo XXI Editores, 1994)

De Ramón, Armando, *Biografías de chilenos. Miembros de los Poderes Ejecutivo, Legislativo y Judicial 1876-1973* (Santiago: Ediciones Universidad Católica de Chile, 1999).

De Solano, Francisco, “El archivo General de Indias y la promoción del americanismo científico,” in Manuel Sellés, José Luis Peset, and Antonio Lafuente, *Carlos III y la ciencia de la Ilustración* (Madrid: Alianza Editorial, 1988).

Desorières, Alain, *The Politics of Large Numbers. A History of Statistical Reasoning* (Cambridge: Harvard University Press, 1998).

Donoso, Ricardo, *Un letrado del siglo XVIII, el doctor José Perfecto de Salas* (Buenos Aires: Facultad de Filosofía y Letras, Universidad de Buenos Aires, 1963).

Emigh, Rebecca Jean, “Numeracy or Enumeration? The Uses of Numbers by States and Societies,” *Social Science History* 26, No. 4 (2002): 653-698.

Emigh, Rebecca Jean, Dylan Riley, and Patricia Ahmed, *Antecedents of Censuses from Medieval to Nation States. How Societies and States Count* (New York: Palgrave Macmillan, 2016).

———, *Changes in Censuses from Imperialist to Welfare States. How Societies and States Count* (New York: Palgrave Macmillan, 2016).

Encina, Francisco, *Historia de Chile. Desde la prehistoria hasta 1891* (Santiago: Nascimento, 1949).

Estefane, Andrés, “‘Un alto en el camino para saber cuántos somos...’. Los censos de población y la construcción de lealtades nacionales. Chile, siglo XIX,” *Historia* 37, No. 1 (2004): 33-59.

———, “Países varios: la *Biblioteca Fundamentos de la Construcción de Chile* y el reconocimiento del territorio nacional,” *Anales de Literatura Chilena* 24 (2015): 353-370.

———, “Estado y ordenamiento territorial en Chile, 1810-2016,” in Francisca Rengifo (ed.), *Historia Política de Chile, 1810-2010. Estado y sociedad* (Santiago: Fondo de Cultura Económica, en prensa).

Estefane, Andrés y Ossa, Juan Luis, “Militancy and Parliamentary Representation in Chile, 1849-1879. Notes for a Prosopographical Study of the Chamber of Deputies,” *Parliaments, Estates & Representation* 37, no. 2 (2017): 159-175.

Frankel, Oz, *States of Inquiry. Social Investigations and Print Culture in Nineteenth-Century Britain and the United States* (Baltimore: The John Hopkins University Press, 2006).

Fernández Abara, Joaquín, “De la colaboración con el Estado a la protesta regionalista: la Junta de Minería de Copiapó desde las Reformas Borbónicas hasta la Guerra Civil de 1859,” *Revista de Historia y Geografía* 31 (2014): 19-46.

———, “Guerra, militarización y caudillismo en el norte chileno: el caso de Copiapó en la Guerra Civil de 1859,” *Economía y Política* 2, No. 2 (2015): 41-75.

———, *Regionalismo, liberalismo y rebelión. Copiapó en la Guerra Civil de 1859* (Santiago: RIL Editores, 2016).

Fernández, Marcos, *Prisión común, imaginario social e identidad. Chile, 1870-1920* (Santiago: Centro de Investigaciones Diego Barros Arana: Editorial Andrés Bello, 2003).

———, *Bebidas alcohólicas en Chile. Una historia económica de su fomento y expansión, 1870-1930* (Santiago: Ediciones Universidad Alberto Hurtado, 2012).

Figueroa, Pedro Pablo, *Diccionario biográfico de Chile* (Santiago: Imprenta y Encuadernación Barcelona, 1897-1901).

———, *Diccionario biográfico de extranjeros en Chile* (Santiago: Imprenta Moderna, 1900).

Figueroa, Virgilio, *Diccionario Histórico, Biográfico y Bibliográfico de Chile 1800-1928*, 5 vols. (Santiago: Establecimientos Gráficos Balcells & Co. 1925-1931).

Foerster, Rolf, Sonia Montecino, and Cristián Moreno, “Documentos relativos a Isla de Pascua, 1864-1888,” in *Documentos sobre Isla de Pascua (1864-1888)* (Santiago: Cámara Chilena de la Construcción: Pontificia Universidad Católica: Biblioteca Nacional de Chile, 2013).

Foucault, Michel, “Governmentality,” in Graham Burchell, Colin Gordon and Peter Miller (eds.), *The Foucault Effect. Studies in Governmentality* (Chicago: The University of Chicago Press, 1991), pp. 87-104.

———, *Security, Territory, Population. Lectures at the Collège de France, 1977-1978* (New York: Picador, 2007).

Fuentes, Jordi, Cortés, Lía, et al., *Diccionario histórico de Chile* (Santiago: Universitaria, 1989).



Galdames, Luis, *Historia de Chile. La evolución constitucional, 1810-1925* (Santiago: Balcells & Co., 1925).

González, Javier, *Archivo Nacional* (Santiago: Dirección de Bibliotecas Archivos y Museos, 1983).

González, José Ignacio, “Cartografía y república. Información territorial, soberanía y organización político-administrativa en Chile, siglo XIX,” *Boletín de la Academia Chilena de la Historia* 118 (2009): 57-89.

———, Rafael Sagredo, and José Compañ, *La política en el espacio. Atlas histórico de las divisiones político-administrativas de Chile. 1810-1940* (Santiago: Instituto Geográfico Militar: Pontificia Universidad Católica de Chile: DIBAM, 2016).

González Bollo, Hernán, *La fábrica de las cifras oficiales del Estado argentino (1869-1947)* (Bernal: Universidad Nacional de Quilmes, 2014).

Gootenberg, Paul, *Imagining Development. Economic Ideas in Peru’s “Fictitious Prosperity” of Guano, 1840-1880* (Berkeley: University of California Press, 1993).

———, “Población y etnicidad en el Perú republicano. Algunas revisiones,” Instituto de Estudios Peruanos, Lima, Documento de Trabajo No. 71 (1995).

Guarda, Gabriel, “La visita del Fiscal Dr. José Perfecto de Salas al Gobierno de Valdivia y el censo de su población (1749),” *Historia* 21 (1986): 289-354.

Guha, Ranajit, *Elementary Aspects of Peasant Insurgency in Colonial India* (Durham & London: Duke University Press, 1999).

Gutiérrez, Claudio and Flavio Gutiérrez, “Ramón Picarte, la proeza de hacer matemáticas en Chile,” *Quipu* 13, Vol. 3 (2000): 307-341.

Hacking, Ian, “Biopower and the Avalanche of Printed Numbers,” *Humanities in Society* 5 (1982): 279-295.

Hernández, Roberto, “Chile conquista su identidad con el progreso. La enseñanza de las matemáticas, 1758-1852,” *Historia* 23 (1998): 125-168.

Hidalgo, Rodrigo y Rafael Sánchez, “La ciudad con ojos de autoridad. El plan de reforma de Santiago del intendente José Miguel de la Barra, 1843-1849,” *Scripta Nova*, Vol. X, núm. 218 (2006). On-line: <http://www.ub.edu/geocrit/sn/sn-218-31.htm>

Hutchison, Elizabeth Quay, “La historia detrás de las cifras: la evolución del censo chileno y la representación del trabajo femenino, 1895-1930,” *Historia* 33 (2000): 417-434.

Illanes, María Angélica, “Proyecto comunal y guerra civil. 1810-1891,” in *Chile des-centrado. Formación socio-cultural republicana y transición capitalista* (Santiago: LOM Ediciones, 2003).

Irarrázaval, Andrés, “Los inicios del Registro Civil en Chile. ¿Ruptura o continuidad con las antiguas partidas eclesiásticas?” *Revista de Estudios Histórico-Jurídicos* 36 (2014): 315-341.

Jocelyn-Holt, Alfredo, “¿Un proyecto nacional exitoso? La supuesta excepcionalidad chilena,” in Francisco Colom González (ed.), *Relatos de nación. La construcción de identidades nacionales en el mundo hispánico* (Madrid-Frankfurt: Editorial Iberoamericana, 2005).

Jofré, José, Rolf Lüders, and Gert Wagner, “Economía chilena 1810-1995: cuentas fiscales,” Documento de Trabajo 188, Instituto de Economía, Pontificia Universidad Católica de Chile (Santiago: 2000).

Joyce, Patrick and Chandra Mukerji, “The State of Things: State History and Theory Reconfigured,” *Theory and Society* 46, no. 1 (2017), available from DOI: 10.1007/s11186-017-9282-6.

Knight, Alan, “El Estado en América Latina desde la Independencia,” *Economía y Política* 1, No. 1 (2014): 5-27.

Ledo, Martín, “El progreso en números. Análisis del *Álbum de la República Oriental del Uruguay compuesto para la Exposición Continental de Buenos Aires, 1882*,” paper presentad at IV Jornadas Nacionales de Historia Social and II Encuentro de la Red Internacional de Historia Social, La Falda, Córdoba (2013), unpublished.

Lemmo, Angelina, *Dauxion Lavaysse y su obra* (Caracas: Universidad Central de Venezuela, 1967).

León, Marco Antonio, *Construyendo un sujeto criminal. Criminología, criminalidad y sociedad en Chile. Siglos XIX y XX* (Santiago: Centro de Investigaciones Diego Barros Arana: DIBAM: Editorial Universitaria, 2015).

Lomnitz, Claudio, “El censo y la transformación de la esfera pública,” in *Modernidad Indiana. Nueve ensayos sobre nación y mediación en México* (México D.F.: Planeta, 1999).

López, Elvira, *El proceso de construcción estatal en Chile. Hacienda pública y burocracia (1817-1860)* (Santiago: DIBAM, 2014).

Loveman, Mara, “The Modern State and the Primitive Accumulation of Symbolic Power,” *American Journal of Sociology* Vol. 110, No. 6 (2005): 1651-1683.

———, “Blinded Like a State: The Revolt against Civil Registration in Nineteenth-Century Brazil,” *Comparative Studies in Society and History* 49, No. 1 (2007): 5-39.

———, “The Race to Progress: Census-Taking and Nation-Making in Brazil, 1870-1920,” *Hispanic American Historical Review* 89, no. 3 (2009): 435-470.

———, “Census Taking and Nation Making in Nineteenth-Century Latin America,” in Miguel Ángel Centeno and Agustín Ferraro (eds.), *State and Nation Making in Latin America and Spain. Republics of the Possible* (New York: Cambridge University Press, 2013).

———, *National Colors. Racial Classification and the State in Latin America* (New York: Oxford University Press, 2014).

Lowe, Donald M., *History of Bourgeois Perception* (Chicago: University of Chicago Press, 1982).

MacKenzie, Donald, *Statistics in Britain, 1865-1930: The Social Construction of Scientific Knowledge* (Edinburgh: Edinburgh University Press, 1981).

Mamalakis, Markos, *Historical Statistics of Chile* (Westport: Greenwood Press, 1989).

Mann, Michael, “The Autonomous Power of the State: Its Origins, Mechanisms and Results,” *European Journal of Sociology* 25, no. 2 (1984): 185-213.

Mc Evoy, Carmen, *Guerreros civilizadores. Política, sociedad y cultura durante la Guerra del Pacífico* (Santiago: Ediciones Universidad Diego Portales, 2011).

Meyer, Leticia, *Entre el infierno de una realidad y el cielo de un imaginario. Estadística y comunidad científica en el México de la primera mitad del siglo XIX* (México D.F.: El Colegio de México, 1999).

Mizón, Luis, *Claudio Gay y la formación de la identidad cultural chilena* (Santiago, Editorial Universitaria, 2001).

Muñoz, Pablo y de Ramón, Emma, “Introducción,” in Archivo Nacional Histórico, *Guía de Fondos del Archivo Nacional Histórico. Instituciones coloniales y republicanas* (Santiago: Centro de Investigaciones Diego Barros Arana, DIBAM, 2009).

Nadal, Francesc, José Ignacio Muro, and Luis Urtega, “Los orígenes del Instituto Geográfico y Estadístico,” *Arbor* CLV (septiembre-octubre 1996): 59-91.

Nicolás Sánchez-Albornoz, *La población de América Latina. Desde los tiempos precolombinos al año 2020* (Madrid: Alianza Universidad, 1977).

Ortega, Luis, *Chile en ruta al capitalismo. Cambio, euforia y depresión, 1850-1880* (Santiago: LOM Ediciones: DIBAM, 2005).

Ossa, Juan Luis, “La actividad política de Francisco Antonio Pinto: 1823-1828. Notas para una revisión biográfica,” *Historia* 40, Vol. I (2007): 91-128.

———, “De Cádiz a la América del Sur. El viaje de una ilusión constitucional,” in Antonino de Francesco, Luigi Mascilli Migliorini, and Raffaele Nocera, (coords.), *Entre Mediterráneo y Atlántico. Circulaciones, conexiones, miradas, 1756-1867* (Santiago: Fondo de Cultura Económica, 2014).

Otero, Hernán, *Estadística y nación. Una historia conceptual del pensamiento censal de la Argentina moderna, 1869-1914* (Buenos Aires: Prometeo Libros, 2006).

Palma, Daniel, *Ladrones. Historia social y cultura del robo en Chile, 1870-1920* (Santiago: LOM Ediciones, 2011).

Pan-Mojano, Juan, “Pascual Madoz e Ibáñez: perfil de un progresista isabelino,” in Francisco, Comín, Pablo Martín-Aceña, and Rafael Vallejo (eds.), *La Hacienda por sus ministros. La etapa liberal de 1845 a 1899* (Zaragoza: Prensas Universitarias de Zaragoza, 2006).

Patriarca, Silvana, *Writing Statistics in Nineteenth-Century Italy* (Cambridge: Cambridge University Press, 1996).

Peloso, Vincent and José Ragas, “Estadísticas y sociedad en el Perú poscolonial: el desconocido censo de Lima de 1860,” *Histórica* 25, no. 2 (2001): 275-293.

Pérez Eyzaguirre, José Ignacio, “Los primeros censos chilenos de población (1854-1920). Análisis crítico de las fuentes de datos censales y sugerencias de uso,” *Boletín de la Academia Chilena de la Historia* 119 (2010): 55-95.

Pinto, Jorge, “Censos e imaginarios en el Chile del siglo XX,” *Dimensión Histórica de Chile* 17-18 (2002-2003): 155-190.

———, *La población de la Araucanía en el siglo XX. Crecimiento y distribución espacial* (Temuco: Ediciones Universidad de La Frontera, 2009).

———, *Los censos chilenos del siglo XX* (Temuco y Osorno: Universidad de La Frontera: Universidad de Los Lagos, 2010).

Plotkin, Mariano Ben and Eduardo Zimmermann, “Introducción. Saberes de Estado en la Argentina, siglos XIX y XX,” in *Los saberes del Estado* (Buenos Aires: Edhasa, 2012).

Ponce de León, Macarena, Francisca Rengifo, and Ernesto San Martín, “¿Demanda social por educación? Estadística, sociedad y alfabetización a partir del censo de la república de 1854,” *Revista Pensamiento Educativo* 46-47 (2010): 303-316.

Prévost, Jean-Guy and Jean-Pierre Beaud, *Statistics, Public Debates and the State, 1800-1945. A social, political, and intellectual history of numbers* (London and New York: Routledge, 2016 [2012]).

Pro Ruiz, Juan, “Inventario y extracción de los recursos: reclutamiento, recaudación y estadística en la construcción del Estado nacional,” in Joaquín del Moral Ruiz, Juan Pro Ruiz, and Fernando Suárez Bilbao, *Estado y territorio en España, 1820-1930. La formación del paisaje nacional* (Madrid: Catarata, 2007).

Quilter, Jeffrey and Gary Urton (eds.), *Narrative Threads. Accounting and Recounting in Andean Khipu* (Austin: University of Texas Press, 2002).

Ragas, José, “Ideólogos del Leviatán. Estadística y sociedad en el Perú (1791-1876),” in Carlos Aguirre and Carmen McEvoy (eds.), *Intelectuales y poder. Ensayos en torno a la república de las letras en el Perú e Hispanoamérica (ss. XVI-XX)* (Lima: Instituto Francés de Estudios Andinos: Instituto Riva Agüero, 2008), pp. 151-172

Rama, Ángel, *The Lettered City* (Durham: Duke University Press, 1996 [1984, Spanish]).

Ramírez Rivera, Hugo, “Fray Joseph Francisco Xavier de Guzmán y Lecaroz (1759-1840) y el Chileno Instruido en la Historia Topográfica, Civil y Política de su País,” *Revista de Geografía Norte Grande* 13 (1986): 81-86.

———, “El oidor don José Perfecto de Salas y de los Ríos y su informe sobre el Reyno de Chile, sus Poblaciones, Fuertes y Misiones,” *Revista de Geografía Norte Grande* 27 (2000): 209-215.

———, “El Oidor Fiscal Don Joseph Perfecto de Salas de los Ríos y su Historia Geográfica e Hidrológica con Derrotero General Correlativo al Plan del Reyno de Chile conocida erróneamente como De Amat,” *Revista de Geografía Norte Grande* 28 (2001): 167-172.

Randeraad, Nico, *States and Statistics in the Nineteenth Century: Europe by Numbers* (Manchester: Manchester University Press, 2010).

———, “The International Statistical Congresses (1853-1876). Knowledge Transfers and their Limits,” *European History Quarterly* 41, no. 1 (2011): 50-65.

Richards, Thomas, *The Imperial Archive. Knowledge and the Fantasy of Empire* (London-New York: Verso, 1993).

Robles Ortiz, Claudio, *Hacendados progresistas y modernización agraria en Chile (1850-1880)* (Osorno: Universidad de Los Lagos, 2007).

———, “Controlando la mano invisible: la Sociedad Nacional de Agricultura y el mercado de maquinaria agrícola (1889-1902),” *Historia* 42 (2009): 203-233.

———, “Julio Menadier: un ideólogo agrario en la esfera pública,” in Julio Menadier, *La agricultura y el progreso de Chile* (Santiago: Cámara Chilena de la Construcción, Pontificia Universidad Católica de Chile, Biblioteca Nacional de Chile, 2012).

Rudinov Saetan, Ann, Heidi Mork Lomell, and Svein Hammer (eds.), *The Mutual Construction of Statistics and Society* (New York: Routledge, 2011).

Sagredo, Rafael, “La ‘idea’ geográfica de Chile en el siglo XIX,” *Mapocho* 44 (1998): 123-164.

———, *Vapor al norte, tren al sur. El viaje presidencial como práctica política en Chile. Siglo XIX* (Santiago: DIBAM, Centro de Investigaciones Diego Barros Arana, México D.F.: El Colegio de México, 2001).

———, “Chile, del orden natural al autoritarismo republicano,” *Revista de Geografía Norte Grande*, núm. 36 (2006): 5-30.

———, “De la historia natural a la historia nacional. La *Historia Física y Política* de Claudio Gay y la nación chilena,” en Gay, Claudio, *Historia Física y Política de Chile*, Tomo Primero (Santiago: Cámara Chilena de la Construcción, Pontificia Universidad Católica de Chile, Biblioteca Nacional de Chile, 2007).

———, “El Atlas de Gay. La representación de una nación,” en Claudio Gay, *Atlas de la historia física y política de Chile* (Santiago: Cámara Chilena de la Construcción: Pontificia Universidad Católica de Chile: Biblioteca Nacional de Chile, 2010).

Salazar, Gabriel, *Construcción de Estado en Chile (1800-1837). Democracia de los “pueblos”, militarismo ciudadano. Golpismo oligárquico* (Santiago: Editorial Sudamericana, 2006).

———, *Mercaderes, empresarios y capitalistas (Chile, siglo XIX)* (Santiago: Editorial Sudamericana, 2009).

Salazar, Gabriel y Julio Pinto, *Historia contemporánea de Chile*, 5 vols. (Santiago: LOM Ediciones, 1999).

Salomon, Frank, *The Cord Keepers. Khipus and Cultural Life in a Peruvian Village* (Durham and London: Duke University Press, 2004).

Sanhueza, María Carolina, “La primera división político-administrativa de Chile, 1811-1826,” *Historia* 41, Vol. II (2008): 447-493.

Schneuer, María José, “Visión del ‘caos’ americano y el ‘orden’ chileno a través de *El Mercurio* de Valparaíso entre 1840 y 1850,” in Ángel Soto (ed.), *Entre tintas y plumas: historia de la prensa chilena del siglo XIX* (Santiago: Universidad de los Andes, 2004).

Schweber, Libby, *Disciplining Statistics. Demography and Vital Statistics in France and England, 1830-1885* (Durham and London: Duke University Press, 2006).

Scott, James C., *Seeing Like a State. How Certain Schemes to Improve the Human Condition Have Failed* (New Haven and London: Yale University Press, 1998).

Scully, Timothy, *Los partidos de centro y la evolución política chilena* (Santiago: CIEPLAN, 1992).

Serrano, Sol, *Universidad y Nación. Chile en el siglo XIX* (Santiago: Editorial Universitaria, 1994).

———, *¿Qué hacer con Dios en la República? Política y secularización en Chile (1845-1885)* (Santiago: Fondo de Cultura Económica, 2008).

Serrano, Sol, Macarena Ponce de León, and Francisca Rengifo, *Historia de la Educación en Chile (1810-2010). Tomo I. Aprender a leer y escribir (1810-1880)* (Santiago: Taurus, 2012).

Silva Castro, Raúl, *Vicente Grez (1847-1909)* (Santiago: s.p.i., 1969).

Silva Vargas, Fernando, “La visita de Areche en Chile y la subdelegación del regente Álvarez de Acevedo,” *Historia* 6 (1967): 153-220.

Smith-Peter, Susan, “Defining the Russian People: Konstantin Arsen’ev and Russian Statistics Before 1861,” *History of Science* 45 (2007): 47-64.

Soto Villaflor, Raúl, “Posesión del Desierto de Atacama,” *Ius Historia* 3 (2010).

Sotomayor Valdés, Ramón, *Historia de Chile bajo el gobierno del Jeneral Don Joaquín Prieto* (Santiago: Imprenta “Esmeralda,” 1900).

Stoler, Ann Laura, *Along the Archival Grain. Epistemic Anxieties and Colonial Common Sense* (Princeton: Princeton University Press, 2009).

Stuven, Ana María, *La seducción de un orden. Las elites y la construcción de Chile en las polémicas culturales y políticas del siglo XIX* (Santiago: Ediciones de la Universidad Católica de Chile, 2000).

Subercaseaux, Bernardo, *Historia del libro en Chile (alma y cuerpo)* (Santiago: LOM Ediciones, 2000 [1983]).

Tilly, Charles, *Identities, Boundaries, and Social Ties* (Colorado: Paradigm Publishers, 2005).

Urzúa Valenzuela, Germán, *Evolución de la administración pública chilena (1818-1968)* (Santiago: Editorial Jurídica de Chile, 1970).

Valenzuela, J. Samuel, “Orígenes y transformación del sistema de partidos en Chile,” *Estudios Públicos* 58 (1995): 5-80.

Vera, Héctor, *A peso el kilo. Historia del sistema métrico decimal en México* (México: Libros del Escarabajo, 2007).

Vicuña, Manuel, *Un juez en los infiernos. Benjamín Vicuña Mackenna* (Santiago: Ediciones Universidad Diego Portales, 2009).

Westergaard, Harald, *Contributions to the History of Statistics* (New York: August M. Kelley Publishers, 1969 [1932]).

Winichakul, Thongchai, *Siam Mapped. A History of the Geo-Body of a Nation* (Honolulu: University of Hawai‘i Press, 1994).

Woolf, Stuart, “Statistics and the Modern State,” *Comparative Studies in Society and History* 31, no. 3 (1989): 588-604.

Yáñez, Juan Carlos, *La intervención social en Chile, 1907-1932* (Santiago: RiL Editores, 2008).

#### 4. Thesis

Barría, Diego, “La autonomía estatal y la clase dominante en el siglo XIX chileno. La Guerra Civil de 1891,” Ph.D. Thesis, Leiden University (2013).

Blumenthal, Edward, “El mito de la excepcionalidad chilena: un proyecto de construcción identitaria,” B. A. Thesis, History, Pontificia Universidad Católica de Chile (2004).

Cattaneo, Isaías, “Los impuestos fiscales a las rentas agrícolas en el siglo XIX,” B. A. Thesis, Facultad de Ciencias Jurídicas y Sociales, Universidad de Chile (2013).

Ochagavía, Carmen, “Historia del servicio de correos de Chile entre 1852-1898: modernización y expansión en las memorias de los directores generales de correos,” B. A. Thesis, History, Pontificia Universidad Católica de Chile (2000).

Ventresca, Marc Joseph, “When States Count: Institutional and Political Dynamics in Modern Census Establishment, 1800-1993,” Ph.D. Thesis, Stanford University (1995).



## 5. Websites

Ley Chile, Library of the National Congress, Chile  
<https://www.leychile.cl/Consulta/homebasico>