

REFINING THE NUMBERS: A Response to Reber and Kleinpenning

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Our purpose in publishing our 1999 piece in *LARR* was twofold: to announce the unexpected discovery of a key 1870–1871 census and to suggest some tentative conclusions based on the information it contained. We never thought of offering the final word on the intriguing question of wartime demographics in Paraguay. When we used the term *Rosetta stone* to describe the 1870–1871 census, we had in mind the serendipitous character of its discovery and the idea that it could serve as an invaluable key in understanding what actually occurred in Paraguay because of the war. Jean François Champollion's discovery marked the beginning, not the end, of Egyptology. Something similar is true for this census.

Evidently Vera Blinn Reber does not agree, and her comments on the matter are more than a little puzzling. She has yet to reconcile her earlier conjectures with these newly discovered materials. As a result, she repeats much of what she previously asserted in her 1988 article in the *Hispanic American Historical Review* and in the process censures us for making arguments we never made. Despite her contentions, we have consistently explained how we worked with the censal figures. We never accused any historian of "overcounting" the postwar population for the simple reason that until the discovery of the 1870–1871 census, there was nothing to count.

Reber appeals to a nebulous authority when she notes that "most historians' figures" for the 1846 census fall between the estimates of Anneliese Kegler and John Hoyt Williams. In point of fact, most historians in South America still repeat the old story of Paraguay having an enormous population in the mid-1800s or make no mention of censuses at all.¹ Those who

1. A good example in this first category is Julio José Chiavenato, *Genocidio americano: La guerra del Paraguay* (Asunción: Carlos Schaumann, 1989), 169–75. For examples of standard histories that fail to mention census taking, see Efraím Cardozo, *Paraguay independiente* (Asun-

try to estimate the prewar population, however, are much along our line, with most accepting a total figure even higher than our 420,000 or more.²

In her table and map purporting to summarize our findings, Reber totally misreads what we have demonstrated. For instance, she claims that we estimated the population for twelve “districts,” implying that we invented the figures out of whole cloth. Not so. The figures we cited for Asunción and Pilar had a separate provenance, the character of which we briefly explained, but these data were far from being estimates.³ In the other ten pueblos, the local *jefes políticos* reported only the total number of inhabitants, rather than qualifying their totals by age or gender or both. We simply recorded that information. We never estimated anything save in the final calculation in the text (not the table), in which we added 25,000 to 50,000 persons to correct for missing *partidos*. All of this we noted in detail.

LARR readers unfamiliar with Paraguayan geography may be impressed with Reber’s neat listing of districts, which places our figures next to groupings of *partidos* that she assembled from a potpourri of sources. This mixed bag of references has led her to conclude that ninety-five such “districts” existed in 1864 and that we therefore lack information for fifty-three.

This is manifestly a straw man argument. Apart from the fact that Reber should have included the *partidos* she considered as “estimated,” the problem is that Paraguayan *partido* boundaries fluctuated over the years. This much was evident from our analysis of “the missing parishes” in the

ción: Schaumann, 1987); Harris Gaylord Warren, *Paraguay: An Informal History* (Norman: University of Oklahoma Press, 1949); Cristina García, *Francisco Solano López* (Madrid: Historia 16 Quorum, 1987); Cecilio Báez, *Le Paraguay: Son évolution historique et la situation actuelle* (Paris: n.p., 1927); Justo Pastor Benítez, *Carlos Antonio López: Estructuración del estado paraguayo* (Buenos Aires: Ayacucho, 1927); Carlos Pastore, *La lucha por la tierra en el Paraguay* (Montevideo: Antequera, 1972); and Juan F. Pérez Acosta, *Carlos Antonio López, obrero máximo* (Buenos Aires: Guaranía, 1948).

2. Juan Carlos Herken Krauer, *El Paraguay rural entre 1869 y 1913* (Asunción: Centro Paraguayo de Estudios Sociológicos, 1984), 76; and Milda Rivarola, *Obreros, utopías y revoluciones: Formación de las clases trabajadoras en el Paraguay liberal (1870–1931)* (Asunción: Centro Paraguayo de Estudios Sociológicos, 1993), 24 (both works note a prewar population of between 400,000 and 600,000). See also Harris Gaylord Warren, *Paraguay and the Triple Alliance: The Postwar Decade, 1869–1878* (Austin: University of Texas, 1978), 32 (which argues for between 420,000 and 450,000); Barbara Ganson de Rivas, *Las consecuencias demográficas y sociales de la guerra de la Triple Alianza* (Asunción: Litocolor, 1985), 9–11 (which argues for 500,000); Domingo M. Rivarola et al., *La población del Paraguay* (Asunción: Centro Paraguayo de Estudios Sociológicos, 1974), 12; and Raúl Mendoza A., “Desarrollo y evolución de la población paraguaya,” in *Población, urbanización, y recursos humanos en el Paraguay*, edited by D. M. Rivarola and G. Heisecke (Asunción: Centro Paraguayo de Estudios Sociológicos, 1970), 15–17 (the last two works calculate a prewar population ranging between 600,000 and 700,000).

3. For more details, see Barbara Potthast, *¿Paraíso de Mahoma o país de las mujeres? El rol de la familia en la sociedad paraguaya del siglo XIX* (Asunción: Instituto Cultural Paraguayo-Alemán, 1996), p. 417, t. 38.

1846 census.⁴ During that decade, Paraguay possessed between eighty-three and eighty-nine *partidos*, but some of them later broke into new subdivisions, some merged, and others disappeared.

Reber errs in her recounting of specific *partidos*. Loreto, for instance, was almost certainly Aquidabán, and thus we have the necessary figures. The same is true for the lesser *partidos* of Ñeembucú, the total figures for which appear under Pilar (the exceptions being Villa Oliva and Villa Franca). As for Asunción, the capital was subdivided into five parishes, not four (Reber omits that of Encarnación), and again, we have total figures for the city. Last, Reber must know that no department named for Rutherford B. Hayes existed in Paraguay in either 1864 or 1870 and would not exist for another decade or so.

The 1870–1871 census had its fuzzy points, to be sure, but most become clear on examination. To reiterate what we previously noted, Marshal Francisco Solano López had ordered a general evacuation of the Paraguayan Missions in 1865, and towns in that southern area had yet to recover five years later.⁵ The villages in the north and east (places like Caaguazú, Unión, and San Joaquín) were mostly centers of yerba production before the war. Because yerba gathering overwhelmingly involved men of military age, it is not hard to understand that the population there had fallen so low that no one thought it worth reporting. Nearly all the men had long since been drafted. As for such places as Acahay, Hiaty, Itapé, Valenzuela, and Tobatí, they were all tiny hamlets that returned figures for crop production but not for population. And such sites as Tacuatí, Aldama y Toledo, Rojas y Yataity, and Guazucúa were temporary camps or ranches, not permanent towns, and thus their absence from the 1870–1871 census should surprise no one.

Finally, to illustrate how maps can distort the truth, by far the greatest portion of the chart that Reber leaves unshaded (and which she implicitly criticizes us for not covering in the population count) was virgin forest before and after 1864. In making her argument, Reber should have employed a choropleth map designed to accurately illustrate derived data (in this case, population statistics). As it is, her shaded map gives the erroneous impression that the Paraguayan population was spread evenly throughout the country. Such was definitely not the case. Even during the 1880s, three-quarters of the population still lived in the small area between Asunción and Villarrica—and we have data for most of the *partidos* in that region. Lacking returns for Ygatymi would likely produce an undercount of per-

4. Whigham and Potthast, "The Paraguayan Rosetta Stone: New Insights into the Demographics of the Paraguayan War, 1864–1870," *LARR* 34, no. 1 (1999):175–86.

5. See "Decreto de Vice-Presidente Francisco Sánchez" (for Marshal López), Asunción, 23 Nov. 1865, in Archivo Nacional de Asunción, Sección Historia, vol. 344, no. 1. See also Efraím Cardozo, *Hace cien años*, 13 vols. (Asunción: La Tribuna, 1970–1983), 3:164.

haps fifty persons, while lacking data for Asunción would mean missing thousands.⁶ We thus have all the data necessary to make our argument.

Reber's claim that we ignored an 1864 "census" is mystifying. Presumably, she means the household listings mentioned in her 1988 article. But these lists were not organized as a census. Furthermore, her criticism seems to suggest that she has glossed over our subsequent comments, in which we addressed the many problems and inconsistencies in her method of estimating average household size. This method cannot be used to calculate overall population because she lacked reliable data on household size in the first place. Such a method becomes even more of a problem when discussing trends during a war in which households both lost members and absorbed displaced individuals at almost every juncture.⁷

Reber mistakenly asserts that the Solano López government "carried out censuses on crop production and availability of men for the military." In fact, it did neither. Draft rolls do not constitute a census because they address a single, unrepresentative segment of the population in a wholly irregular fashion. As for the agricultural *censos* conducted by Vice President Francisco Sánchez, we have pointed out elsewhere that they record crops sown, not harvested, and therefore cannot be used to prove anything about production.⁸

Reber speculates that "previous Paraguayan experience with military recruitment may have led the people to avoid cooperating with any government in census taking." This observation is ahistorical, as well as being beside the point. By late 1869, the Paraguayan Army had largely disintegrated, and no recruitment was in progress. No villager could ever mistake the head-counting efforts of a locally known individual for the brutal incursions of a press-gang. In this instance, Reber is fishing in a dead pond.

Reber's criticisms take their most peculiar form when she asks if officials were even available to conduct censuses in the first place. On the face of it, the question seems absurd. If no one was present to collect the information, then who generated all the official documentation? The censal returns were all compiled by local men appointed by the Gobierno Provisorio. If Reber means to suggest that someone falsified the 1871 statistics, then how does she explain the different signatures and handwritings on separate slips of paper as well as all the corroborative evidence in the archive of the Ministerio de Defensa Nacional? It would be one thing if the docu-

6. Herken Krauer, *El Paraguay rural*, 75. The cartographic fallacy into which Reber has fallen is explained at length in Mark Monmonier's *How to Lie with Maps* (Chicago, Ill.: University of Chicago Press, 1991), 40–42; and more generally in Borden D. Dent, *Principles of Thematic Map Design* (Reading, Mass.: Addison-Wesley, ca. 1985).

7. Potthast, *Paraiso de Mahoma*, p. 323, n. 77; and Thomas Whigham and Barbara Potthast, "Some Strong Reservations: A Critique of Vera Blinn Reber's 'The Demographics of Paraguay: A Reinterpretation of the Great War,'" *Hispanic American Historical Review* 70, no. 4 (1990):668–69.

8. Whigham and Potthast, "Strong Reservations," 668–69.

ments were silent or ambiguous on the census, but in fact they shout out their relevance for all to hear.

With Jan Kleinpenning, our differences are less a matter of substance than of interpretation. Like Reber, he questions the reliability of the 1870–1871 census figures, noting the confused situation of the early postwar period. He asserts, “it must have been difficult for the remaining and newly appointed *jefes políticos* to get a clear idea of the population in their *partidos*.” We disagree. In dire circumstances, endangered populations usually come together for safety and mutual encouragement. They do not disperse into the bush. We see many examples of this trend in Paraguay during the war. Because Paraguayans were living close to each other, it proved easy to gather information on numbers (especially since the numbers were so reduced). In this respect, it should be remembered that assembling statistics on population was the secondary object of the 1870 census, its primary purpose being to learn the status of the latest sowing of crops. When asking about *liños* of cotton, it is not that much more difficult to ask how many men and women (together with children and *ancianos*) were actually sowing them. If the *jefes* knew anything, surely they knew this much, for it was happening before their eyes.

On the issue of undercounting children, here Kleinpenning makes a strong case. We made corrections for undercounting in our analysis of the 1846 census, and perhaps we should have revisited the matter when addressing the 1870–1871 census. We were dissuaded from that course only because such adjustments rely on normal demographic patterns that the war had completely disrupted.

Regarding Kleinpenning’s remarks on Behm and Wagner, we fail to understand why he would choose to privilege the *Bevoelkerung der Erde* figures for a supposed January 1873 census when we have solid primary documentation: the actual censal returns for 1870. Behm and Wagner relied on the comments of the German consul and a Buenos Aires newspaper’s report of a census that may have occurred. But since Kleinpenning presents no hard evidence that it did take place and under what circumstances, he asks us to accept the word of the consul. Yet what do we know of that gentleman’s reliability? Was he even in Paraguay at the time? We suspect that he resided at Buenos Aires and depended on reports from others about what was happening upriver.

We have worked extensively with all the postwar Paraguayan newspapers and found no indications of an 1872–1873 census, while we found confirmation that the 1870–1871 census was held, as seen in the previously mentioned figures for Pilar and in *La Regeneración*, which published in December 1869 a state decree that called on local officials to prepare for a census.⁹ Of one thing we can be certain: the German consul was not in Capiatá,

9. *La Regeneración* (Asunción), 12 and 19 Dec. 1869.

Yaguarón, Paraguari, or Caapucú, whereas the *jefes políticos* definitely were. Their findings amount to first-hand information, while those of Behm and Wagner never rise beyond third-hand information at best. The latter does not trump the former.

Both Kleinpenning and Reber call our attention to José Jacquet's notorious revisions of the 1886 census. We agree that such information is suggestive, but it applies only parenthetically to 1870. Jacquet was the minister responsible at the national level. He was working in a different period and for a different purpose. If Kleinpenning means to argue that Paraguayan census authorities added or subtracted numbers as a matter of routine, then he needs to explain why the *jefes* should have done so in 1870. We can find no reason to suppose that they omitted anyone. But if Kleinpenning's object is to stress that Jacquet altered these statistics because "he knew that a lot of people had been omitted," then Kleinpenning should consider the historical context. Paraguay in the 1880s urgently needed to attract foreign capital, which was unlikely to appear if potential investors knew how few laborers the country actually had. In 1870, by contrast, the situation was infinitely more desperate. Finding enough food was the most pressing problem and the one the Gobierno Provisorio was most interested in resolving.

Jacquet's admitted "adjustments" of the 1886 census call into question his entire project, and we see every reason to doubt the figures he cites. We must therefore treat with skepticism any effort to determine earlier birthrates by reference to his highly problematic conclusions. In our discussion of the prewar censuses, we noted that birthrates varied significantly between the late 1700s and 1846, at one point reaching a high of 2.6 percent. The catastrophic conditions of the 1870s brought all sorts of odd and polygamous couplings, the details of which are described in Potthast's *Paraíso de Mahoma*, and for Tobatí, in Diego Hay's recently completed community study.¹⁰ These works underline the fact that there was nothing normal about the postwar era, least of all the birthrate. In a population with four or five times as many women as men and with a male occupation army present, birthrates not only could but must have been higher than under normal circumstances. Thus any back-projected corrections derived from a supposedly "normal birthrate" in the 1880s yield nothing but weak speculations. They cannot negate the 1870 findings of the *jefes*, who had no reason to doubt the tragic scene unfolding before them.

10. Potthast, *Paraíso de Mahoma*; and James Diego Hay, *Tobatí: Tradición y cambio en un pueblo paraguayo* (Asunción: Intercontinental, 1999).