

Methodological paper Bolivia 1900-2000

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General remarks

An important remark about the composition of the population in Bolivia is the division between the highlands and the lowlands. The history of conquest and territorial occupation was relevant not only in the past but also for today: it sets the background to the current battle over the resources and the political cohesion of the country. The table below shows the regional population of Bolivia in the period between 1847 and 2001. Today, the rich lowland departments have a lower population density and a higher percentage of non-indigenous population. One third of the population lives in the lowlands.

Regional population nowadays Bolivia 1847-2001

Regions ¹	1847	1900	1950	1976	1992	2001
Highlands	54,4%	51,3%	57,5%	52,7%	45,0%	41,7%
"Transition" Valley	36,1%	36,1%	30,2%	27,5%	28,9%	28,7%
Lowlands	9,5%	12,5%	12,3%	19,8%	26,1%	29,5%

Sources: Dalence, 1975 and National censuses.

Estimation of entire population

Bolivia 1900

In 1900 the territory of Bolivia was a bit larger in the contemporary North West. Between 1899 and 1903 the so called "Guerra del Acre" between Bolivia and Brazil ended with the loss of a huge territory that belonged to Peru and Bolivia. By the time Bolivia was working on the 1900 Census, people from Brazil were in Acre and did not allow completing the census. So the population of Acre was not counted. There are therefore different calculations of the population living in Acre: between 10.000 and 11.600 according to the Bolivian authorities, and between 15.000 and 25.000 according to the Brazilian authorities. In the 1900 Census there were 345 inhabitants recorded in Acre, 329 of them were men, and from them 235 military.

In Eastern Bolivia lived an indigenous population that was not conquered. Contemporary authorities said that they could calculate (and even count part of) these indigenous thanks to the missionaries, though I would say the number is probably underestimated.

Among the many under registrations that the authorities explained of the census (and I will list these omissions after this paragraph) was that there were indigenous people living "inside" the conquered territory - about 2/3 of the population – that were afraid and did not really want to cooperate with the census takers because they thought the census would be part of new contributions to the state in the form of personal services and taxes.

Other omissions and problems were found. Most importantly, in the city of La Paz, Department of Beni and Department of Santa Cruz the census was not completed , and

¹ High Lands: La Paz, Oruro and Potosí; Valey: Cochabamba, Chuquisaca and Tarija; Low lands: Beni, Santa Cruz and Pando.

the Province of Muñecas in La Paz omitted children. The solution they found was to add 5% of the total population to the eventual total population. In some cases they considered data of previous censuses, which were better.

Some problems with the database:

The worst problem seems to be the discrepancy between the total population (to which is added 5% to correct mistakes) and the 'real' numbers of people living in the departments. Most of the published results for the total population of the country are based on the total population plus 5% (this is done for example in the data on labour). So I had to work with these numbers. I only used departmental data to check my results in some cases. There are two problems with the departmental data: one, that some of them are less good than other, for example the city of La Paz. Two, that differences between both totals (National and departmental) are difficult to explain and I am not sure which data is better. I decided to choose to use the national data.

Organizing age distribution is complicated because of the way the information was published in the census. I tried to organize age as good as I could following the instructions

and depending on the data in the sources. I put them in 4 groups: 0 to 13; 14 to 40; 41 to 99 and 100 and more. There are some people without information: 55.316 male; 53.871 female.

About urban population there was an important discussion in Bolivia. Some people wanted to classify population by "quality", that is, indigenous population were for them "not urban" independently of the size of the city in which they are living. They wrote: "some people think we should not consider as *urban* the towns where the majority of the population is indigenous, even if these towns are bigger than ten or twenty thousand inhabitants".² Authorities finally decided to consider "urban" those towns that had more than 200 inhabitants. For my data I add only the cities with 5000 and more inhabitants.

Bolivia 2001

I worked with the 2001 Census data and also with different regular "questionnaires" (encuestas) in order to understand better the "silences". I am going to describe, first, some specificities about the information.

In the item "marital status" I added concubinage. I also entered divorced people separately in the database. People that have a marital status are 15 years and older.

Urban population is in the census people living in towns with "more than 2000 inhabitants". I looked for all the cities which are bigger than 5000 and the result is in the data base. Here a table for comparison:

Total population	Urban= 2000+ inhabitants	Urban= 5000+ inhabitants
8.274.325	5.165.230	4.854.649
	62,4%	58,7%

² Censo de la población de Bolivia. Septiembre 1 de 1900. Tomo II. Resultados definitivos. La Paz, 1904, pag. 14.

Estimation of the economically active population

Bolivia 1900

On page 43 of the census is stated: "investigation on occupation was not uniform and accurate as other items". The authorities described the causes: occupational titles are not uniform, people understand occupations in different ways, there are many occupations that were not really included in the official classification of the census and people had more than one occupation.

Occupations were calculated for the population aged 7 and more.

About my data: I processed all the information on occupation, but I have 2 problems:

- a) People who have "other occupations" in the classification are 147.615 (9,5% of the population over 7 years old including children and "no specific").
- b) People who have "no specific" in the classification are 72.895 (4,7%).

For control, I also calculated the occupation on the basis of the information of each regional department, but these data differ from the data on the total population. I don't know which numbers are better, because both are different in different ways (see table below). The most important difference is between people "without specification" that were 150.687 (if I add all departments) and not 72.895 (total population). But the difference (77.792) is the 5% more population they add because of the problems they had (omissions, territories they could not count population, etc.)

Occupation	Total Dep.	Total Pop.	Difference
Cocineros (cook)	13175	13475	-300
Comerciantes (tradesman)	55521	55251	270
Costureras (seamstress)	47920	47922	-2
Impresores (printer)	438	439	-1
Médicos (doctors)	486	476	10
Militares (military man)	2334	2343	-9
Músicos (musician)	1281	2281	-1000
Sirvientes (servants)	22811	22810	1
Veleros (candle maker)	373	382	-9
otras profesiones (other)	147612	147615	-3
no consta (not on the record)	150687	72895	77792
TOTAL	1633300	1556551	76749

		Total
Population (quality: Aggregated)	1555818	
Increase 5% because of omissions	77792	1633610
Population not included	91661	
"War like" Indigenous	91000	182661
Total		1816271

Bolivia 2001

Of the population that have received labrels, the 'inactive' (non working) part of the population is about 63.8%. I know that is impossible, and I was looking for some explanation, but these are the numbers given in the census. The information is equally bad for the cities as for the country side. For some provinces the data are less good than

for others. For the women the problem is the most large, but the high number of inactive women is only part of the answer. Not only women working in their houses or in the rural areas were missing, but also children, and also men and urban people. I think that one of the problems is that all statistics on labour are based on the number of the occupied population (see table at the end of the report)

Occupations:

In 2001 occupations are calculated for people that are 7 years and older.³ Census authorities assumed that people under 10 years old were "non working people because of their age". But at the same time they asked for the occupation of children between 7 and 10 in order to analyze child labour.

The National Statistic Institute organized the population in two major categories:

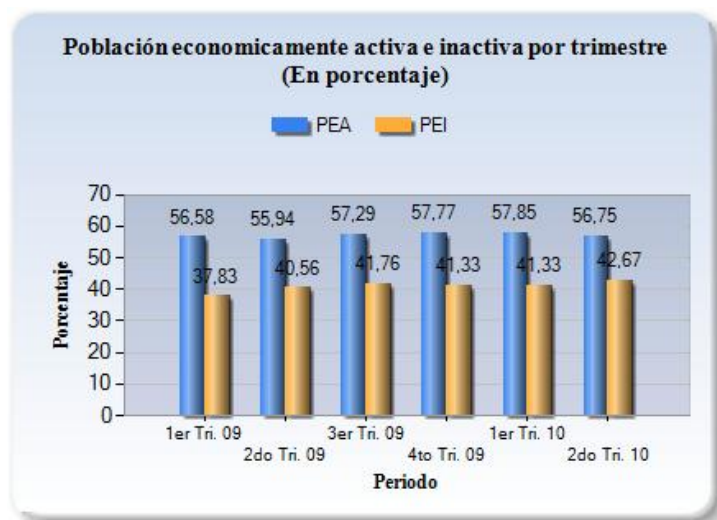
- non working people because of their age (10 or younger)
- people capable of working

In the second category they include working people, unemployed and inactive.

Using the questionnaire as source (MECOVI), these are the numbers for 2001 (I found some differences with the Census data):

TOTAL population	8248404
Non working people because of age	2202118
Potential working people	6046286
- Active population	4099151
o Working people	3884251
o Unemployed	429800
- Inactive	1947135

The inactive are mostly students, women that took care of the household, retired people, etc. Even if we combine the data from the questionnaires and the census, we still have a lot of people without occupation, who are either considered as 'inactive' or who have no occupation specified. I looked for other information in order to propose who are those people, or at least who are some of those people.



The actual data on active and inactive population are depicted in this image. PEA: population that is working or looking for a job. PEI: women working at home, retired people, students, and all of them that are not working or that are not able to work.

³ <http://www.ine.gov.bo/pdf/CensoBoleta.pdf>

From the Census data I processed these labour relations:

5. Household kin producers	4,5%
12. Self employed	50,9%
13. Employers	3,1%
14. Market wage earners	35,3%
18. Non market wage earners	6,2%

Categories 3 and 4 could be in our taxonomy "self employed". But what this table shows is that "household workers" are very important in Bolivia and may be underestimated in the statistics. The importance of rural (and really disperse) population who worked mostly as peasants but also combined agriculture with other occupations', small trades people (selling fruits and vegetables in small local or regional markets) and indigenous who are mostly peasants, is not really evident in the census data:

	employed	Self-employed	employer	cooperativista	Household worker	Non specified
Services and commerce worker	27,7%	59,1%	3,5%	0,1%	4,9%	4,7%
Agriculture, livestock and fishing workers	10,5%	71,6%	1,1%	0,2%	6,9%	9,7%

Source: 2001 Census (Instituto Nacional de Estadísticas y Censos)

Estimation of labour relations

In order to make more clear the way I worked, I have made a Working table Bolivia 1895 branch in the general data base. One can see there, how I classified all the data on labour relations.

2001 Bolivia	Total population	Non working Population because of age			Population 10 years old and more working (excluding people that cannot work because of age)								Without especifications	
		Total	Male	Female	Active Population						Inactive population			
					Total	Population occupied		unemployed		Total	Male	Female		
						male	female	male	female					
Total	8.261.554	2.170.110	1.117.773	1.052.337	3.131.813	1.780.183	1.215.873	101.049	34.708	2.869.055	1.076.155	1.792.900	90.576	
Urban	5.155.185	1.258.231	647.939	610.292	1.953.015	1.039.613	803.464	78.736	31.202	1.899.008	725.346	1.173.662	44.931	
Rural	3.106.369	911.879	469.834	442.045	1.178.798	740.570	412.409	22.313	3.506	970.047	350.809	619.238	45.645	