

Gender and Ethnic Inequalities in Latin America: A Multidimensional Comparison of Bolivia, Guatemala and Peru

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Abstract

This paper compares gender and ethnic inequalities in Bolivia, Guatemala and Peru, the three countries with the largest shares of indigenous population in Latin America. Horizontal Inequalities (HIs) are estimated for a wide array of variables in the following dimensions: education, health, employment, housing quality and poverty. A selected sub-set of these variables is used to analyse the characteristics of HIs in each country and in each dimension. As expected, indigenous people and women report disadvantages with respect to their counterparts. However, it is also found that gender gaps in education, employment status and labour income are remarkably wider among the indigenous population, while the gender gap in health is similar in both groups. Analysing the role of the State shows that State policies regarding healthcare are heavily biased against the indigenous population, but that is not the case regarding current education policies. The coverage of social programs is biased in favour of indigenous population, but the average amount received is higher among the non-indigenous in the case of Guatemala (the only case with available data). Finally, the roles of gender and ethnicity in the determination of labour income are directly compared using Propensity Score Matching. The results show that gender is a stronger determinant of income than ethnicity in the three countries. In addition, the interaction effect of ethnicity and gender is similar to the effect of gender alone in Guatemala, whereas in the case of Bolivia and Peru the interaction effect is remarkably higher than the single effect of gender.

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By Manuel Barron¹

1. Introduction

Even though most Latin American countries are rated as 'medium human development' countries (UNDP 2004), it has been shown that this is the most unequal region in the world (Deininger and Squire 1996). While the per capita GDP of the region is around US\$2,000, 36 percent of Latin Americans live in poverty and 16 percent in extreme poverty (Leipziger 2001). The World Bank estimates that 40 to 47 percent of the income is concentrated in the richest 10 percent of the population, whereas the bottom 20 percent of the population accounts for only at most 4 percent of the wealth (De Ferranti *et al* 2003). Similar figures can be constructed for access to health, education, and almost every other aspect of human development.

The figures cited above show severe inequality amongst individuals. But are these individuals members of certain groups of the society, beyond 'the poor', the uneducated, the unprotected? Stewart (2001) introduced the notion of horizontal inequalities (HIs), which refers to social, economic and political inequalities between culturally defined groups, rather than between individuals (which are called 'vertical inequalities'). The main hypothesis of Stewart (2001) is that when groups are clearly defined and when it is not easy to change groups, severe HIs can lead to conflict. This paper develops comparable estimates of interethnic and gender HIs in the three Latin American countries with the highest shares of indigenous population, and compares the effect of gender and ethnicity on different dimensions of human development.

The paper is organised as follows. The next section reviews the historic origins of interethnic inequality in Latin America. Section 3 deals with the selection of ethnic markers. Sections 4 and 5 describe the methodology of measurement of intergroup inequality and the datasets. In Section 6 the interethnic and gender HIs in several dimensions of human development are presented and analysed. In Section 7 the role of the state is analysed. Section 8 compares the role of ethnicity and gender in the determination of labour income. Section 9 concludes.

2. Historical origins of interethnic inequality in Latin America

A recent current in economic history investigates the relationship between inequality and the colonial past of Latin American countries (e.g. Engerman and Sokoloff 2002, Acemoglu *et al* 2002, Mahoney 2003). The cornerstone of this approach is that the dynamics of inequality are driven by inertia, meaning that current inequality depends on past inequality, a process that has been called 'path dependence'.

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Where indigenous population was dense, political elites excluded broad spectrums of society from the basic entitlements of citizenship (Mahoney 2003). This led to inequality in factor endowments, which is a profound determinant of the type of institutions that emerge in a society (Engerman and Sokoloff 2002). Where initial inequality was high, elites were in a better position to establish legal frameworks that would guarantee political power and economic opportunities. In these types of societies, the result is the establishment of extractive institutions rather than industrialisation, which in turn, reproduce high inequality (Acemoglu *et al* 2002).

Hence, it may be argued that the density of indigenous population determined the width of citizenship², and the latter determined the type of institutions that prevailed in the society. These institutions determined public policies regarding education, land and health, as well as fiscal and monetary policies that created incentives in favour of either extractive activities or industrialisation. While the former results in high inequality, the latter reproduces relatively low inequality. Thus the initial share of indigenous population was a determinant of the degree of inequality, which also tallies with the predictions of Sigma Theory (Figueroa 2003)³.

With the Spanish invasion, indigenous peoples went through a number of economic shocks over and above social degradation. In the first place, they experienced a major demographic shock as a result of war and, particularly, the diseases carried by the Spaniards, diseases for which they had not developed the necessary antibodies (Diamond 1997). In the second place, there was massive labour relocation from agriculture to mining, in line with the main interest of the Spanish. At the same time, indigenous people were expelled from the most productive lands and left with the least productive or with none at all. This series of shocks in the main means of production (labour and land) produced severe disequilibria, and hence serious inefficiencies, which concentrated the indigenous peoples in the poorest sections of society. Moreover, their economic system (based on reciprocity and redistribution) was abruptly replaced by the Spanish system, in which the state acted as a rapacious tax collector and redistributed practically nothing to the people.⁴

In addition, indigenous people were excluded from formal education – and consequently suffered from high rates of illiteracy – thus impeding their entrance to the more modern sectors of the economy and confining them to extractive activities.

This situation did not change with the arrival of independence from Spain (Albó 2002). Literacy and landholding were required in order to vote and to run for public posts. This meant that the majority of indigenous people were excluded from electing the political authorities, and also that indigenous authorities were unable to get a place in the formal political system. Peru was the last of the three countries to abolish the literacy requirement, doing so in 1979. Even though it is not a sufficient condition, the right to vote is a necessary condition for eliminating interethnic social, political and economic inequality (Ames *et al.* 1978).

² The width of citizenship refers to the size of the share of citizens in a given population.

³ What factors determined the density of the indigenous population before the arrival of the Spaniards? Was it the economic prosperity of the different regions, or perhaps central planning decisions by the corresponding empire? Answering these questions constitutes an interesting challenge, but is well beyond the scope of this paper.

⁴ In the case of Peru, the so-called 'indigenous tax' was one of the main sources of income during the time of the Viceroyalty, as well as during the first phase of the Republic. After being abolished and almost immediately re-established several times, it was definitively eliminated during the government of Ramón Castilla during an economic boom driven by guano exports. For a more detailed discussion of the indigenous tax in Peru, see Estela (2001)

According to Sigma Theory (Figueroa 2003) the main cause of inequality is exclusion, not discrimination. Barron (2008) presents evidence supporting this prediction for Peru. This is in line with the preceding argument, for aboriginal populations have been systematically excluded from access to human capital. Nevertheless, the process of social degradation to which they were subjected may have contained certain elements of discrimination as well. In general terms, observed inequality, apart from being a natural result of capitalism, may be caused by exclusion, discrimination, or a combination of both. In this paper, discrimination refers to the different treatment of individuals with the same characteristics; whereas exclusion refers to inequality in the access to resources. So, exclusion can be interpreted as discrimination in access. Assume, for instance, that wages depend only on years of schooling. If a man and a woman with the same number of years of schooling receive different payment for the same task, that is a case of discrimination. On the other hand, it is a case of exclusion if women do not have access to the same quantity or quality of formal education as men, so they cannot access the same type of occupations and in consequence receive a lower payment. Note that in both cases the result is gender inequality, but the causes are different. It must be acknowledged that discrimination against a particular group may be built into the degree of exclusion that such a group suffers.

3. Ethnic markers

The size of the indigenous populations in Latin American countries is still a matter of debate. Depending on the context, the government may have incentives either to overestimate or underestimate it. In other cases, it is measured inappropriately because indigenous people usually concentrate in rural areas which are not easily accessible (Adams 1998:5, cited in Caumartin 2005). Table 1 presents different estimations of the size of the indigenous population in the three countries under analysis.⁵ This lack of consensus makes it necessary to discuss various methodologies in order to find the most suitable ethnic marker for each country.

Table 1: Estimates of indigenous population

| | Bolivia | Guatemala | Peru |
|---------------------------------------|---------|-----------|---------|
| CELADE and Jordan Pando for 1970s [1] | 71% | 66% | 47% |
| CELADE and Gnerre for 1980s [1] | 57% | 44% | 41% |
| Latest national census [2] | 49% | 41% | 46% |
| National household surveys [3] | 58% | 38% | 36% [4] |

[1] Published by CELADE, from various sources. Cited by Gonzales (2005)

[2] Bolivia: 2001; Guatemala: 2002; Peru: 1940

[3] Bolivia: Mecovi 2000; Guatemala: Encovi 2000; Peru: Enaho 2001.

[4] This estimate is obtained using self-identification of the household heads. See the body of the text for problems with this variable and why it leads to underestimation of the indigenous population.

The search for a theoretical definition of ethnicity has caused a fierce academic debate in anthropology and ethnology (Assies, Haar and Hoekema 2000). It is not the aim of this paper to find a perfect ethnic variable, or to find the exact definition of an indigenous person in Latin America. In addition, one must always bear in mind that an empirical variable cannot be more precise than the concept it represents (Sen 1999:5-6). Despite all efforts made to improve the accuracy of the ethnic markers,

⁵The 2001 Enaho was used because the 2002 survey does not include any questions related to ethnicity. However, this estimate is not expected to be precise because a significant proportion of the population did not answer the question.

misclassification is inevitable. Hence, the aim is, by using different criteria in each case, to choose the variable that is most likely to minimise such mistakes.

Ethnic identity involves a combination of self identification and ascription by other groups (Sieder 2002). In Latin America, one of the legacies of the colonial period is a hierarchy between ethnic groups, where whites dominate over indigenous people. Thus, many people try to whiten themselves in others' eyes. Lovell (1999) and Silva (2001) demonstrate this for the case of Brazil, while Ñopo *et al.* (2004) show it for Peru. On the other hand, during the 1990s ethnic identity gained political importance in several countries in Latin America (Stavenhagen 1994), and some individuals, e.g. in Bolivia, even self-identify as indigenous for political gain (Albó and Quispe 2004), Peru being a notable exception in this regard (Albó 2002).

In the countries under study, the 'mix' of self identification and ascription by others is not the same. In Guatemala, self identification is a more important determinant of ethnicity than ascription by others, though the latter is not negligible⁶. Caumartin (2005) describes the different ethnic identities in Guatemala and reviews all the variables and methodologies used in the Guatemalan censuses to sort individuals into ethnic groups. Her analysis implies that self identification, which avoids the subjectivity and prejudices of census takers, is the best approach to establishing an ethnic marker with the data available for Guatemala. However, she also points out that this is by no means an ideal marker because some people may hide their identities, out of shame or for fear of any sequels to the civil war. Despite these caveats it is still the best available marker, and hence the one to be used in this paper, which results in a share of 40 percent of indigenous population. In Peru the opposite is the case. There, ascription by other members of society is far more important than self identification (see e.g., Figueroa and Barron 2005, and Ñopo *et al.* 2004). Bolivia is an intermediate case, where both ascription and self identification play roles of similar importance (Albó and Quispe 2004). For these two countries other methods will be used. They will be discussed now.

Ethnic markers usually include race, language⁷, religion and place of birth. According to Figueroa and Barron (2005), based on Peruvian history and geography, the best available and most reliable variable to proxy for ethnicity in Peru is place of birth.⁸ Language is not an adequate variable because Spanish is the mother tongue of several indigenous groups in the Northern Andes and in coastal areas. Religion cannot be used because Catholicism cuts across almost all ethnic groups. Self identification is not reliable because most people tend to hide in the '*mestizo*' (mixed) category due to discrimination against indigenous people⁹. Imposed race (race as observed by the enumerator) like the dataset used in Ñopo (2004), Ñopo *et al.* (2004), Moreno *et al.* (2004) and Torero *et al.* (2004) would work, but at the time of

⁶ In Guatemala, as in Bolivia, individuals are freer to decide to which ethnic group to belong, while in Peru, the rest of the society decides for the individual. In the latter country, even though an individual may describe themselves and feel themselves to be *mestizo*, if society qualifies that person as indigenous, then they are indigenous.

⁷ Mejía and Moncada (2000) recommend avoiding the use of language alone as an ethnic marker in Latin America.

⁸ For a more detailed explanation, see Figueroa and Barron (2004:4-6, and Appendix A), from which this and the following paragraph draw heavily.

⁹ For example, in the 2001 National Household Survey, the household heads and their partners were asked about their ethnic background. Around 36 percent of the household heads self-identified as indigenous, less than 3 percent as white and 56 percent as *mestizo*. When partners are included, the results do not change. Nevertheless, as Ñopo *et al.* (2004) have shown for the Peruvian case, people tend to whiten themselves, so an important share of the 56 percent might actually be indigenous people.

writing the dataset was not publicly available. The most important weakness of this dataset is that it only covers urban areas.

During the pre-Hispanic period (until 1535), several cultures developed throughout Peru. The Incas ruled politically, but were unable to dominate culturally beyond what are now the southern Andes. Different cultures were predominant throughout the country. Along the coast, the Nazca, Paracas and Chimú; in the Central and Northern Andes, the Wari and Caxamarca; and in the Amazon, various tribes widely dispersed throughout the region. When the Spaniards arrived, history was repeated: they dominated politically, but not culturally. They settled in Lima and several cities of the interior. During the second half of the 20th century, Lima became a strong magnet for people from the interior of the country. Thus, an important group of second-generation migrants was born in the 'white' capital. The migrants settled in Lima's periphery, which allows for the identification of this population by their district of birth. Thus, the capital is split between the 'core' (mostly white) and the 'periphery' (mostly *mestizo*). Some of the white population settled in cities in the interior, such as Trujillo, Arequipa, Iquitos or Cajamarca. To take this into account, the capitals of departments from other regions, mostly white and *mestizo*, are called 'local core'. Following this line of argument, Figueroa and Barron (2005) define seven 'ethnic regions', as follows: Lima – core (mostly white); Lima – periphery (mostly *mestizo*); local core (mostly *mestizo* and white); rest of coast, Northern and Central Andes, Southern Andes, and Amazonian (mostly indigenous). For the purposes of this study, the indigenous regions will form one block, opposed to Lima (core and periphery) and the capitals of departments (local core), which will form the 'non-indigenous' population. This definition results in an estimated indigenous population of 67 percent. Although by this methodology the figure is substantially above other estimates for Peru, the resulting figure is consistent with the World Bank estimates for Bolivia (71 percent) and Guatemala (66 percent).

Albó and Quispe (2004) study the complex relations between ethnic markers among Bolivian mayors. Language, self-identification and place of birth interact, reinforce and contradict each other. To solve this problem, the authors develop a combined ethnicity index, where the most relevant variable is self identification, and language and place of birth are, to a certain degree, interchangeable characteristics. However, 'place of birth' is not parallel to the definition used for Peru. The different categories of place of birth are clustered according to the size of the population, not the ethnic composition of the region. Although size of birthplace and ethnicity overlap, it is not properly an ethnic categorisation, so this dimension will not be taken into account in this paper. Thus, for the case of Bolivia anyone who self identifies as indigenous or who has an indigenous mother tongue is considered indigenous.¹⁰ This leads to an estimated indigenous population of 52 percent of the national population.¹¹

4. The estimation of horizontal inequalities

Most inequality indices focus on inequality between individuals, what Stewart (2001) calls 'vertical' inequality. However, the aim in this paper is the estimation of intergroup inequalities. Stewart, Brown and Mancini (2005) present a set of statistical

¹⁰ It must be noted that in the household survey self identification is not available for individuals under 12 years old. For them, the only ethnic marker is mother tongue.

¹¹ Despite using a broader definition of indigenous than Guatemala (having an indigenous mother tongue or identifying as indigenous – note the inclusive conjunction), Bolivia reports a lower share of indigenous than Guatemala and Peru. If the richer indigenous were being left out, this would lead to an overestimation of HIs in Bolivia.

tools aimed at measuring inequalities between groups. For purposes of comparison across the three countries, in this study the only relevant division is between indigenous and non-indigenous people, so it is 'as if' there were only two groups in each country. A deeper level of analysis could be achieved in an intracountry study, but at the cost of losing the regional perspective. Following Stewart, Brown and Mancini (2005:11) the intergroup ratio will be used to measure HIs. The ethnic ratios will always be expressed as indigenous to non-indigenous, and the gender ratios will always be expressed as female to male ratios.¹²

Intergroup inequalities are measured by the ratio between each pair of groups. As the ratio diverges away from 1 (either towards zero or to infinity) the higher the inequality between those groups. The comparison of interethnic ratios and gender ratios allows us to determine which variable (ethnicity or gender) has a stronger weight in overall inequality.

5. The databases

The surveys of the three countries adopt the format of the World Bank Living Standard Measurement Surveys, which makes their results comparable. The fact that the surveys have not been taken in the same year is not expected to invalidate comparability across countries, for interethnic inequalities tend to vary slowly across time.

The data for Bolivia comes from the 2002 Mecovi. This includes around 5,700 households and 24,900 individuals out of an estimated population of 8.5 million. It is representative of urban and rural locations as well as of three geographical levels, which are Andes, Valleys and Plains. The household survey used for the Peruvian case is the 2002 Enaho. This survey includes around 18,600 households and more than 85,700 individuals, out of an estimated population of 28.2 million. It is representative at several levels: department, geographical region (Coast, Andes and Amazon), and rural/urban areas. The Guatemalan household survey, called Encovi, took place in 2000. It included around 7,300 households and more than 37,700 individuals, from an estimated national population of almost 11.4 million. It is representative at the political-region level (a political region is a group of three or four departments, except for Guatemala City, which is a political region by itself). Although some of its chapters have serious caveats, Encovi is the most reliable household survey in the country.¹³

¹² Another option is to present the ratios of 'desirable' variables (such as literacy) as indigenous to non-indigenous and the ratios of 'undesirable' variables (such as population affected by diarrhoea) as non-indigenous to indigenous. However, this may lead to serious complications and inconsistencies in three main instances. In the first place, and most importantly, measures should be as objective as possible (however, the ratio itself is not free from subjectivity, for analysis focused on differences may lead to different conclusions). By categorising a variable as 'desirable' or 'undesirable', the judgement of the researcher comes actively into place, and the ratio would be transformed into a normative measure. As will be clear later in the paper, an example of this is the share of households who benefit from social programs. In the second place, it is not clear how to proceed when the ratio for a particular variable is lower than 1 in one country and higher than 1 in another. In the third place, it is not clear how to proceed with non-dichotomous ordinal variables, like level of education. Throughout this paper, the ratios are presented *always* as indigenous to non-indigenous and *always* as female to male.

¹³ According to official information from the Guatemalan National Bureau of Statistics (INE), individuals aged 7 or older were asked to indicate the ethnic group to which they belonged. Surprisingly, the database contains just one missing value for this variable. This may reflect

6. Multidimensional analysis of HIs

This section estimates HIs in different dimensions of human development: education, health, employment, political citizenship, social assistance, housing quality and poverty, trying to assess as many dimensions of HI as the surveys allow. There are plenty of theoretical models relating some of these dimensions in causal ways, but no particular model will be adopted here. Therefore no causal relationship is tested in this section. The estimation of HIs will allow us, in the first place, to distinguish where (both in which dimension and in which country) inequalities are more severe and where they are not. In the second place, to assess which type of inequality (gender or ethnic) plays a more important role in each dimension.

An appealing feature of simple cross-tabulations is that they show a picture of the actual situation of ethnic and gender inequalities. However, this simple comparison of means does not account for differences in covariates. Hence, it must be kept in mind that the underlying causes of inequality may be other variables.

There is no safe way to synthesise all the dimensions of HIs in one index. On the other hand, analysing too many variables individually makes it very difficult to see the broad picture. In this section HIs in key variables of each dimension will be reviewed. Tables A1.1 to A3.6 in the Appendix report very rich and detailed information on a wide selection of variables regarding education, health, employment, housing quality, poverty, and social programs for each country, broken down by gender and ethnic group¹⁴. The interested reader may focus on them at will, although dedicating some time to get a feel of the figures is strongly recommended. To help illustrate the discussion, Tables 2 to 4 present two key variables in each dimension. The literature on each of the dimensions is vast, highly specialised, and impossible to summarise in a single paper, so this section will focus on summarising the most important results and analysing the overall trends.

either some sort of imputation when a person did not answer the question, or that individuals were 'forced' to answer by the fact that there is no 'does not know' or 'not applicable' option, thus introducing non-sampling error. Nevertheless, as was noted above, the hiding of ethnic identity is not as important an issue in Guatemala as it is in Peru, so the people who did not self-identify properly (i.e., those who were hypothetically forced to answer or those for whom ethnic identity was hypothetically imposed) should be relatively small in number, and hence the non-sampling measurement error introduced in this way is not likely to be critical for the results of the study.

¹⁴ Since the aim of this paper is to compare inequalities among the three countries, only variables that were present in the surveys of at least two countries were taken into consideration for the tables.

Table 2: Horizontal inequalities in education, health and employment, by ethnicity and gender

| | Non-indigenous | | Indigenous | | HI Ratio | |
|--|----------------|--------|------------|--------|----------|--------|
| | Male | Female | Male | Female | Ethnic | Gender |
| Education | | | | | | |
| Literacy rate, 15+ | | | | | | |
| Bolivia | 97% | 94% | 92% | 73% | 0.86 | 0.86 |
| Guatemala | 88% | 80% | 72% | 48% | 0.71 | 0.82 |
| Peru | 98% | 96% | 92% | 76% | 0.87 | 0.88 |
| Mean years of schooling, 25+ | | | | | | |
| Bolivia | 9.7 | 8.7 | 6.7 | 4.4 | 0.61 | 0.77 |
| Guatemala | 5.5 | 4.6 | 2.9 | 1.3 | 0.34 | 0.73 |
| Peru | 11.5 | 10.7 | 8.0 | 6.0 | 0.63 | 0.83 |
| Health | | | | | | |
| Affected by diarrhoea (Children under 5) | | | | | | |
| Bolivia | 24% | 24% | 33% | 38% | 1.47 | 1.07 |
| Guatemala | 30% | 29% | 39% | 36% | 1.30 | 0.94 |
| Peru | NA | NA | NA | NA | NA | NA |
| Ill population who did not receive attention, 5+ | | | | | | |
| Bolivia | 46% | 41% | 56% | 56% | 1.29 | 0.96 |
| Guatemala | 29% | 28% | 48% | 46% | 1.65 | 0.96 |
| Peru | 59% | 56% | 65% | 62% | 1.10 | 0.95 |
| Employment | | | | | | |
| % of working EAP as white collar | | | | | | |
| Bolivia | 38% | 34% | 19% | 11% | 0.42 | 0.72 |
| Guatemala | 37% | 28% | 19% | 10% | 0.47 | 0.72 |
| Peru | 36% | 41% | 15% | 11% | 0.34 | 0.92 |
| Mean wage per hour (urban areas) | | | | | | |
| Bolivia (Bolivianos) | 10.7 | 8.2 | 7.0 | 6.8 | 0.71 | 0.86 |
| Guatemala (Quetzales) | 12.4 | 9.4 | 6.1 | 5.3 | 0.52 | 0.80 |
| Peru (Soles) | 7.6 | 5.7 | 4.4 | 3.3 | 0.34 | 0.92 |

See Appendix for sources and notes

Health and education are often treated as variables to explain economic growth (see WHO 2001 and its background papers). In most of these studies their importance stems from their statistical significance in regressions. However, health and education are goods *per se*. They increase utility, however one wants to think of this concept, not only as a result of their effect on income, but also because they enrich the individual's capabilities. Education, as such, raises the individual's utility or welfare more than by the income it produces. In the same line of reasoning, health represents an increase in well-being in addition to the increase in income due to the longer (or more productive) hours a person is capable of working when healthy. Employment status, political citizenship, and housing quality also have direct impact on the individual's well-being.

At first glance, the tables re-affirm previous findings: indigenous people and women show disadvantages in access to education and health. A deeper look into the education variables shows similar levels of gender and ethnic HI ratios. However, the gender ratios for years of schooling are closer to 1 than the ethnic ratios, thus

indicating that ethnicity seems to play a more important role in intergroup inequality than gender in the determination of years of formal schooling. In addition, the gender gap is wider among the indigenous population. Indigenous men report similar values of education variables to non-indigenous women.

The health variables show a different outcome. In the case of health variables, ethnicity seems to play a bigger role than gender in the determination of intergroup inequalities. Indigenous people report lower shares of coverage than non-indigenous, whereas the gender ratios are closer to 1, for both ethnic groups. It is important to highlight that no outcome variables are provided in the household surveys for adult population (only for children), and that might be an important cause of the relatively low HIs reported here.

Regarding employment and income, gender HIs are lower than ethnic HIs. Therefore, ethnicity is more important than gender in the determination of intergroup inequalities in labour-related variables. One of the most important variables is the share of white-collar workers in each group, because this can be associated with socially respected positions. A similar pattern emerges: indigenous people and females are under-represented in this category, compared to the group of non-indigenous males. As with the education variables, it is clear that the gender differences are more marked within the indigenous population.

Another important dimension of inequality is child labour and under-18 labour (see tables A1.3, A2.3, and A3.3 in the Appendix). Indigenous children between the ages of 7 and 15 report remarkably higher shares of working children than non-indigenous children, and boys report higher shares than girls. In the case of Bolivia, ethnic ratios are farther away from 1 than gender ratios, but in the case of Guatemala the order is not clear. The employment data for Peru only cover children from the age of 14, so it is not enough to generate solid evidence. In this case, the prevalence of gender or ethnicity as the main determinant of intergroup inequalities is unclear.

The variables related to housing quality and poverty (measured by consumption) show the data broken down by ethnic group and gender of the household head. Interethnic inequalities are still present: indigenous households are worse off than non-indigenous households. However, within each ethnic group, gender inequalities revert: female-headed households are better off than male-headed households. In fact, female-headed households tend to report higher shares of access to services, and on average also better dwelling characteristics than male-headed households of the same ethnic group. Households headed by non-indigenous females report the lowest percentages of extreme poverty and the highest percentages of non-poor households. The interethnic differences are less marked among female-headed households than among male-headed households.

Poverty is clearly concentrated on the indigenous groups, as would be expected after the results reported in the paragraphs above. However, as in the case of housing quality, female-headed households are better off than male-headed households. The share of non-poor households ranges from 56 to 77 percent for the non-indigenous population, while the range for the indigenous population runs from 31 to 53 percent. One of the most alarming figures reported in Table 3 is that in the three countries over 50 percent of indigenous households are poor or extremely poor.

Table 3: Horizontal inequalities in housing quality and poverty status, by ethnicity and gender of the household head

| | Non-indigenous | | Indigenous | | HI Ratio | |
|---|----------------|--------|------------|--------|----------|--------|
| | Male | Female | Male | Female | Ethnic | Gender |
| Housing Quality | | | | | | |
| % of households with running water | | | | | | |
| Bolivia | 77% | 88% | 55% | 67% | 0.71 | 1.21 |
| Guatemala | 74% | 80% | 62% | 72% | 0.85 | 1.12 |
| Peru | 83% | 85% | 57% | 61% | 0.69 | 1.08 |
| % of households with flooring other than dirt floor | | | | | | |
| Bolivia | 78% | 87% | 56% | 64% | 0.72 | 1.14 |
| Guatemala | 71% | 74% | 38% | 49% | 0.56 | 1.12 |
| Peru | 81% | 81% | 44% | 47% | 0.55 | 1.09 |
| Poverty Status | | | | | | |
| Non poor | | | | | | |
| Bolivia | 56% | 68% | 32% | 43% | 0.59 | 1.31 |
| Guatemala | 66% | 75% | 31% | 43% | 0.49 | 1.22 |
| Peru | 72% | 77% | 45% | 53% | 0.64 | 1.17 |
| Poor | | | | | | |
| Bolivia | 31% | 22% | 31% | 34% | 1.09 | 0.96 |
| Guatemala | 28% | 23% | 48% | 44% | 1.73 | 0.84 |
| Peru | 22% | 18% | 30% | 29% | 1.38 | 0.92 |
| Extremely poor | | | | | | |
| Bolivia | 14% | 10% | 37% | 23% | 2.70 | 0.61 |
| Guatemala | 5% | 3% | 21% | 13% | 4.07 | 0.54 |
| Peru | 6% | 5% | 25% | 19% | 4.38 | 0.70 |

See Appendix for sources and notes

Table 4: Horizontal inequalities in political citizenship

| Political citizenship | Non-indigenous | | Indigenous | | HI Ratio | |
|-------------------------|----------------|--------|------------|--------|----------|--------|
| | Male | Female | Male | Female | Ethnic | Gender |
| ID card | | | | | | |
| Bolivia | 90% | 89% | 90% | 83% | 0.97 | 0.95 |
| Guatemala | 84% | 70% | 82% | 53% | 0.87 | 0.77 |
| Peru | 96% | 96% | 94% | 91% | 0.96 | 0.98 |
| Voted in last elections | | | | | | |
| Bolivia | NA | NA | NA | NA | NA | NA |
| Guatemala | 66% | 47% | 68% | 32% | 0.88 | 0.62 |
| Peru | 88% | 90% | 88% | 85% | 0.97 | 0.99 |

See Appendix for sources and notes

Table 4 shows some key variables in political HIs. Political HIs are hard to measure, because there are no systematic databases on it. From the surveys only certain general measures can be obtained, such as the share of people who have an ID card or who voted. Despite being key indicators of political citizenship, they are not sufficient conditions to exercise complete political citizenship (Ames *et al* 1978). Political HIs go well beyond citizenship and voting, to participation in government at many levels, but the surveys do not include data on this. Furthermore, the only variable on political HIs for Bolivia is the possession of an ID card, which is the only comparable measure in the three countries. In this respect, indigenous women report the lowest percentages of population without an ID card in each of the countries under analysis. In this case also, HIs in Peru and Bolivia are lower than in Guatemala. The difference is wider for the share of citizens who voted in the last electoral process before the survey, with a figure as low as 32 percent for Guatemalan indigenous women. However, it must be taken into account that this does not allow for whether the voters actually know how to vote, or whether they have access to electoral information, among other issues.

The data presented in Tables A1.1 through A3.6 can also be used to answer particular questions about the trends. Several ratios were constructed and are presented in Tables A4.1 to A4.7. First, it is necessary to acknowledge that with so many dimensions of inequality, it is impossible to rank the countries unequivocally. Different measurement rules will result in different rankings. However, one option is to construct a ranking based on a tally of how many times the inequality ratio is higher in one country than in another. This is a rough but consistent approach. Another option would include assigning weights to the variables according to their importance. The implicit weight in the approach that follows is $1/n$ for every variable in each dimension (with n being the number of variables in each dimension). By doing so, a set of interesting questions can be addressed. Three are put forward here.¹⁵

In which country and in which dimension are interethnic inequalities largest?

Guatemala shows the highest interethnic HIs in education and in (adult population) health, and Peru the lowest in both cases. However, Peru shows the highest interethnic inequalities in housing quality and employment variables. Finally, Guatemala reports the highest HIs in poverty. Bolivia does not show the highest inequalities in any of the variables included in the dimensions under analysis.

In which dimensions of human development do indigenous women face the most severe disadvantages?

The dimensions in which indigenous women face the biggest disadvantages are clearly education and employment. Inequalities in access to health tend to be somewhat lower. Regarding housing and poverty, female-headed households are on average better off than male-headed households of their corresponding ethnic groups. It should be noted that ethnicity still plays a role: households headed by non-indigenous males are better off than those headed by indigenous females.

¹⁵ Some researchers could argue that, within the education dimension, literacy is a more important variable than years of schooling, so their weights should be different. The tables in the appendix will allow the construction of different rankings with any weights the interested reader may want to attach to each variable.

Which country shows the largest gender gaps for the indigenous population?

As has been shown, the gender gap in some variables is wider for the indigenous population. The intensity of these differences also varies by country, so each country may have different priorities regarding gender-equity policies. The ordering in education is quite straightforward. The female-to-male ratios are farthest away from 1 for the indigenous population in Guatemala, meaning that this country's indigenous population reports the highest gender gap in education. Bolivia is the intermediate case and Peru's indigenous population reports the lowest gender gaps in education. The ordering in health variables is not clear. Analysing the employment variables, it is apparent that Guatemala reports greater gender gaps than Bolivia, but Peru's place in the ranking is not clear.

In household-level variables, where females are better off than males, Peru reports the lowest advantage for females in housing variables and the highest in poverty rates. Guatemala, in turn, reports larger advantages in poverty rates (larger shares of non-poor and lower shares of extremely poor).

7. The role of the state

Given the extent of the gender and ethnic HIs shown in the previous section, it is of key importance to analyse the role the state plays in their alleviation. Even though it can be argued that state policies are largely inefficient, these policies may actually be preventing a worsening of the situation. This section analyses the extent to which the state affects HIs through the introduction of the 'state coverage' variable.

The 'state coverage' variable of a particular service attempts to be a measure of how the state covers people who do not receive this service from private providers. It is obtained by dividing the share of people who received a service from the state by the share of people who did not receive the service from a private provider. The latter proxies the share of people who cannot afford private services. The empirical definition of 'private' includes religious institutions, NGOs, and private charities. Therefore, private does not equate to luxurious. For instance, religious schools targeted at poor people are included as private institutions. Children who attend religious schools are already receiving education, so the state, given its limited resources, should aim to educate children that are not receiving education yet. Since indigenous people tend to live in rural areas in larger proportions than non-indigenous people, the 'state coverage' variable was further broken down by urban and rural areas to account for economies of scale in the provision of education and health.

Given that in the countries under analysis there are no important inequalities in the share of people who in theory are allowed to vote by gender and ethnic group (except indigenous women in Guatemala) and the shares of indigenous population are above 50 percent in each country, one might expect the state to allocate resources in an unbiased fashion. It must be noted that the available data confines the analysis to very basic variables. For instance, it is not possible to assess service quality, its price, or how long people had to travel or wait for the service, so small HIs may be hiding large latent inequalities.

Table 5: Horizontal inequalities in social assistance, by area of residence

| Social Assistance | Non-indigenous | | Indigenous | | HI Ratio | |
|--------------------------------------|----------------|--------|------------|--------|----------|--------|
| | Male | Female | Male | Female | Ethnic | Gender |
| Household received social assistance | | | | | | |
| Urban | | | | | | |
| Bolivia | NA | NA | NA | NA | NA | NA |
| Guatemala | 18% | 20% | 23% | 18% | 1.20 | 1.03 |
| Peru | 23% | 27% | 30% | 29% | 1.40 | 0.87 |
| Rural | | | | | | |
| Bolivia | NA | NA | NA | NA | NA | NA |
| Guatemala | 31% | 26% | 34% | 38% | 1.14 | 1.03 |
| Peru | 57% | 41% | 60% | 52% | 1.09 | 0.86 |
| Average monthly benefit | | | | | | |
| Urban areas | | | | | | |
| Bolivia | NA | NA | NA | NA | NA | NA |
| Guatemala | 166.8 | 167.6 | 127 | 121.9 | 0.76 | 1.02 |
| Peru | NA | NA | NA | NA | NA | NA |
| Rural areas | | | | | | |
| Bolivia | NA | NA | NA | NA | NA | NA |
| Guatemala | 223.5 | 297.1 | 189.1 | 164.6 | 0.80 | 1.08 |
| Peru | NA | NA | NA | NA | NA | NA |

See Appendix for sources and notes

The large ethnic and gender inequalities in education do not seem to stem from a biased allocation of current state resources. The state coverage HI ratios in the provision of schooling (for children aged 6 to 17) are rather close to 1 even in rural areas, signalling low inequalities in the coverage of current students. However, it is important to highlight that the surveys do not contain enough information to expand the analysis to the adult population, so it is not possible to test whether the allocation of state resources has been biased in the past.

Regarding health variables, the provision of healthcare and health insurance is strongly biased against indigenous populations, though not necessarily against women. This is especially important given that indigenous households are more likely to be poor or extremely poor than non-indigenous households.

The opposite occurs with social programs, where the ratios are substantially higher than 1, meaning that the shares of indigenous households that receive social programs are much higher than the shares of non-indigenous households. However, it is important to also analyse the size of the benefits. This variable is available in the case of Guatemala¹⁶. Although the share of indigenous households that reports benefiting from social programs is higher than the figure for non-indigenous households, the average benefit of those who receive social programs is significantly higher among the latter¹⁷. This seems to be a tergiversation of Maslow's (1954) argument that poorer people will be satisfied with less. Unfortunately, there are no directly comparable data for Bolivia and Peru.

¹⁶ This is the only instance in which the rule of footnote 12 was waived.

¹⁷ At the 99 percent confidence level.

Table 6: HI ratios for state coverage and social programs [1]

| State Coverage | Bolivia | | Guatemala | | Peru | |
|----------------------|---------|--------|-----------|--------|--------|--------|
| | Ethnic | Gender | Ethnic | Gender | Ethnic | Gender |
| Urban Areas | | | | | | |
| Schooling, 6-17 [2] | 0.95 | 0.98 | 0.87 | 0.92 | 0.99 | 1.00 |
| Healthcare [3] | 0.89 | 1.06 | 0.91 | 0.98 | 0.69 | 1.27 |
| Health insurance [4] | 1.01 | 1.00 | 0.45 | 1.00 | 0.27 | 1.00 |
| Social Programs [5] | NA | NA | 1.20 | 1.03 | 1.40 | 0.87 |
| Rural Areas | | | | | | |
| Schooling, 6-17 [2] | 0.96 | 0.99 | 0.92 | 0.88 | 0.95 | 0.97 |
| Healthcare [3] | 0.72 | 0.93 | 0.70 | 1.01 | 0.54 | 1.29 |
| Health insurance [4] | 0.55 | 1.00 | 0.33 | 1.00 | 0.29 | 1.00 |
| Social Programs [5] | NA | NA | 1.14 | 1.03 | 1.09 | 0.86 |

[1] State coverage of a particular variable is the share of population that received that particular service from the state over the share of population who either received it from the state or did not receive it. [2] Children aged 6 to 17 who attend some type of school. [3] Share of population aged 5 or older that, having been sick or injured, received medical attention. [4] Share of population with health insurance. [5] Share of households that receive social programs from the state.

8. Ethnicity and gender as determinants of labour income

This section compares directly the effect of ethnicity and gender in the determination of labour income. Three factors prevent the use of traditional linear regressions: (i) measurement error in the dependant variable, leading to attenuation bias; (ii) the analysis is not restricted to a region of common support (it compares observations by simple extrapolation of the regression lines); and (iii) unobservable variables that might be correlated with the regressors would bias the coefficients.

Instead of including gender and ethnic variables in a regression, in this section the effects of gender and ethnicity on labour income are assessed by Propensity Score Matching (PSM)¹⁸. The approach has been used before extensively to assess either gender or ethnicity, but not to compare their effects. PSM is less seriously affected by the problems cited above than linear regressions. In the first place its final results do not rely on the estimation of coefficients, but on the in-sample prediction of a propensity score. This attenuates the first problem. In second place, if the unobservable variables are correlated with the regressors, the correlation would be expected to improve the prediction because the regressors would include some information on the unobserved variables, partially solving (iii). Finally, to deal directly with point (ii), PSM is based on comparing individuals who are similar in a set of observable characteristics except for pertaining to different groups¹⁹.

¹⁸ See Dehejia and Wahba (2002) or Heckman, Ichimura and Todd (1998) for a detailed explanation of the methodology.

¹⁹ Given the wide HIs shown in the previous sections, we would not expect the groups to share common supports in the determinants of wages. Appendix B shows the mean and standard deviation of all the variables in the model before and after matching. Before the matching, the three countries show important differences in the explanatory variables, indicating a lack of common support. After matching and trimming the samples, all the differences in the mean values of the explanatory variables are negligible. The matching and trimming procedure is described in detail in the appendix.

PSM allows comparison of the effect of ethnicity and gender in a formal way, controlling for observable covariates²⁰. The method as applied in this paper can be summarised as follows. There is one control group ('non-indigenous males') and three treatment groups ('indigenous males', 'non-indigenous females', and 'indigenous females'). The first comparison was taken between the control group and 'indigenous males'. The probability of being indigenous (for indigenous and for non-indigenous individuals) is calculated through a probit model with years of education, age, a dummy for urban areas²¹, and the number of weekly working hours as explanatory variables. Based on each individual's observed characteristics the model generates (predicts) a probability of 'being indigenous' despite the fact that the individual may or may not be indigenous. The methodology is based on the assumption that individuals with similar probabilities of being indigenous have similar characteristics. The predicted probability resulting from this model is called the propensity score. In a next step, individuals with similar propensity scores (i.e. with similar characteristics) but from different groups (e.g. one indigenous and one non-indigenous) are matched, and the difference between the wages in each pair is calculated. Finally, the mean of these differences, called the average treatment on the treated (ATT), is calculated. The ATT is the average effect of being indigenous for males. A similar procedure is followed to compare the control group with non-indigenous females (effect of gender) and with indigenous females (the joint effect of gender and ethnicity). The results are presented in Table 7.

Unobservable variables that might be correlated with the regressors do not present a problem because the objective is not to estimate the coefficients of the regressors, but to predict a propensity score. The most important unobservable variable in wage equations is innate ability. The only necessary assumption for the validity of this methodology in the presence of innate ability is that its distribution is similar across genders and ethnic groups. One can hardly object to that.

Table 7: PSM[1]: Average effect of ethnicity and gender on earnings (as % of mean income in control group) [2], [3]

| | Bolivia | Guatemala | Peru |
|--|----------------|------------------|-------------|
| non-indigenous females 'effect of gender' | -29% | -27% | -19% |
| indigenous males 'effect of ethnicity' | -13% | -16% | -16% |
| indigenous females 'joint effect of ethnicity and gender' | -38% | -23% | -27% |

[1] Nearest Neighbour Matching with bias adjustment, and with up to 5 neighbours to test for heteroskedasticity [2] The control group is non-indigenous males. [3] All the effects are significant at the 95 percent level of confidence.

Table 7 presents the effects measured in terms of local currency units per month and as a share of the mean income in the control group (non-indigenous males). Appendix B presents more details on the methodology. As expected, ethnicity and gender play highly significant roles in the determination of labour income. The purely

²⁰ A criticism of PSM when applied to gender and ethnic income gaps is that it does not generate useful policy recommendations (Di Nardo 2008). PSM was originally designed to evaluate the effect of training programs. If the program is successful (if it raises the participants' incomes), the program should be expanded; and if it is not successful, it should not. Di Nardo (2008) argues that, since a person cannot change their gender or ethnicity in a fluid way, the conclusions of PSM are not useful.

²¹ to account for the differences in price levels, economies of scale, and other structural differences between urban and rural areas.

ethnic effect (non-indigenous males compared to indigenous males) ranges from 13 percent (Bolivia) to 16 percent (Guatemala and Peru), whereas the purely gender effect (non-indigenous males compared to non-indigenous females) the effect ranges from 19 percent (Peru) to 29 percent (Bolivia)²². Comparing indigenous women to non-indigenous women may also be seen as a pure ethnic effect. However, additional complications arise because both groups are receiving the effect of being females, and there may be nonlinear interactions between ethnicity and gender²³.

The evidence seems to indicate that in the three countries (at least regarding net effects) gender plays a stronger role in income inequality than ethnicity, though in Peru the difference between ethnic and gender effects is lower. In addition, it is interesting to observe that in Guatemala the joint effect of gender and ethnicity is relatively close to the effect of gender²⁴. Therefore, the marginal effect of being indigenous is low. In contrast, the joint effects observed in Bolivia and Peru are considerably greater than each of the net effects. For a woman, the marginal effect of being indigenous is important. In the latter countries, ethnic and gender biases reinforce each other, while in Guatemala the gender bias almost absorbs the ethnic bias.

9. Conclusions, policy recommendations and agenda for future research

This paper has reaffirmed findings of previous empirical literature on inequality and ethnicity, and expanded the evidence to other dimensions of inequality. It has also enriched the literature by making a multidimensional comparison of the three countries with the highest shares of indigenous population in Latin America. Unlike most comparative studies, the approach to ethnicity was different for each country, depending on the most feasible way to define ethnicity empirically in each case.

The theoretical complexity of ethnicity makes it impossible to differentiate accurately between indigenous and non-indigenous individuals. The lack of high-quality databases increases the difficulty of the task. Hence the classification proposed here is just what can be called 'the best feasible empirical approximation' to ethnicity. These shortcomings impede sophisticated econometric analysis, where precision of measurement is a key input, because measurement error leads to biased estimates.

Even if the groups presented here were not agreed to be strictly ethnic groups, the main message of this paper is that there are severe inequalities between the groups in each country²⁵. People who self-identified with indigenous culture in Guatemala are worse off than people who self-identified non-indigenous; likewise people with an indigenous mother tongue or who self-identify as indigenous in Bolivia are worse off

²² Kernel matching with bandwidth of 0.01 and obtained and bootstrapping with 1000 repetitions produces highly consistent results, giving support to the robustness of the model.

²³ The comparison would deliver the pure effect of ethnicity if gender affected the indigenous in the exact same way as the non-indigenous (without interacting with ethnicity). So, obtaining an estimate of the effect of ethnicity when both groups are affected by gender would imply imposing restrictions on the effect of gender. The same reasoning applies to comparing indigenous men to indigenous women.

²⁴ The joint effect of gender and ethnicity being lower than the single effect of gender is owing to the fact that the non-indigenous males selected for the joint effect of gender and ethnicity (i.e., the non-indigenous males who most closely resemble the indigenous women) receive lower wages than the non-indigenous males selected for the single effect of gender (i.e., the non-indigenous males who most closely resemble the non-indigenous women).

²⁵ However, it should not be difficult to accept that the definitions are, at least, strongly correlated with ethnicity.

than the rest of the country. In Peru, people born outside the capital or the main cities of the interior are worse off than the rest. And being a woman makes matters worse, except in the case of female heads of households. It appears that women who are heads of household are a special group within women.

This paper has shown large HIs in access to education, health and high-quality jobs, and in levels of poverty and housing conditions. Which part of these inequalities corresponds to exclusion and which to discrimination is an interesting question that demands future research. Why these inequalities prevail despite the apparent equality in political citizenship is another puzzle. Are indigenous people voting for the wrong candidates? Is there a right one? If not, why not? Are path-dependant political forces from colonial times so strong that they cannot be broken? Are political lobbies impeding the surge of indigenous leaders? The answers to these questions are surely worthy of further research.

The empirical evidence of Section 6 of this paper is highly consistent with the findings of Hall and Patrinos (2005). However their book focuses 'on how improvements in human development can help reduce the [interethnic] earnings gap and contribute to [income] poverty reduction in the medium to long term' (Ibid: 231). They put the case for improvement of education and health services (coverage and quality) as a means to increase indigenous peoples' income. The focus in this paper is the opposite: increased income is only a means (and not necessarily the only one) to achieving higher human development. In this sense, it is key to have in mind that income inequality underestimates human development inequality (Sen 1999)²⁶.

Another interesting finding is that gender inequalities in education, employment and income generation are wider among the indigenous population. Finding the underlying causes of this phenomenon constitutes another interesting objective for future research. Regarding policy, this finding highlights the importance of targeting indigenous women and tailoring policies to the needs of this group.

In addition, the data presented in the appendices can be used to address a broad array of questions. For instance, in which country and in which dimension are interethnic inequalities larger; in which dimensions of human development do indigenous women face more disadvantages; or which country reports the largest gender gaps for the indigenous population.

Regarding the role of the state, it is shown that the states' current education policies are not necessarily biased against the indigenous population. The HI ratios are generally close to 1, even in rural settings. However, there are serious inequalities in the provision of healthcare and health insurance. The effect of this bias against the indigenous population is enhanced by the fact that they are more likely to be poor, hence they dispose of lower resources than the non-indigenous, who receive better coverage.

The coverage of social programs in Peru and Guatemala is slightly biased in favour of the indigenous population. However, the size of the benefit is larger for non-indigenous households in Guatemala, where the data is available.

Section 8 of the paper analyses the effects of gender and ethnicity as determinants of labour income and compares them directly. The paper shows that gender has a

²⁶ For example, a sick man will need more income (to buy medicine) than a healthy man to achieve the same level of utility. That is why inequalities in the provision of health are so important.

clearly heavier weight than ethnicity in the determination of labour income. To reduce these inequalities, on-the-job training programmes, credit, and insurance should be provided to indigenous women.

Hall and Patrinos (2005) propose two routes to reduce interethnic inequality: a long route and a short one. The long route consists in increasing indigenous representation in the legislature in order to increase the political voice of indigenous peoples, but they leave this possibility aside because it requires too much time. The authors advocate the short route, where the empowerment of indigenous peoples amounts to treating them as clients. This solution would be viable if all markets in urban and rural settings were complete and perfect, especially the credit, labour and insurance markets. Otherwise, the indigenous people would still be deprived: Because of their underlying characteristics (economies of scale and information asymmetries) capitalist markets may not work for indigenous communities. So even if the indigenous populations were to be fully empowered clients, there would not be a supply for their demands. For instance, indigenous peoples tend to live in rural areas and have low levels of assets, generating problems of scale that impede the emergence of formal credit and insurance markets (Dercon 2004, Figueroa 2003). To that, one must add the production risk inherent to agriculture, and the information asymmetries characteristic of dispersed and poorly educated populations. Hence, more market *per se* would not deliver the promised development.

Enforcement of indigenous rights (access to education and health, as well as adequate infrastructure) the long route, implies the enforcement of indigenous peoples' freedom. In this respect, the present study agrees with Hall and Patrinos (2005).

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Appendix A – Extensive Dataset on Horizontal Inequalities

| TABLE A1.1 EDUCATION | BOLIVIA | | | | | | | | |
|--------------------------------|----------|-----------|-------|-------|--------|-----------------------|-------------------------|--------------------|----------------------|
| | National | Non indig | Indig | Male | Female | Non Indigenos Male | Non Indigenos Female | Indigenous Male | Indigenous Female |
| <u>Literacy</u> | | | | | | | | | |
| literacy rate, 15+ | 87.3% | 95.2% | 81.9% | 94.0% | 81.2% | 97.0% | 93.6% | 91.9% | 72.6% |
| <u>Schooling, 6-17</u> | | | | | | | | | |
| Private [1] | 11.1% | 14.0% | 5.9% | 11.4% | 10.9% | 14.2% | 13.9% | 6.3% | 5.6% |
| Public | 78.5% | 78.5% | 78.5% | 78.9% | 78.1% | 78.4% | 78.6% | 79.8% | 77.2% |
| None | 10.4% | 7.4% | 15.5% | 9.7% | 11.0% | 7.4% | 7.5% | 13.9% | 17.2% |
| <u>Level of education, 25+</u> | | | | | | | | | |
| No level [2] | 15.8% | 6.7% | 20.8% | 7.3% | 23.6% | 4.0% | 9.1% | 9.1% | 31.7% |
| Elementary School | 48.5% | 38.5% | 54.0% | 51.2% | 46.0% | 36.7% | 40.2% | 59.2% | 49.2% |
| High School | 19.7% | 28.3% | 14.9% | 23.4% | 16.2% | 30.7% | 26.0% | 19.4% | 10.8% |
| Post High School | 15.8% | 26.3% | 10.1% | 17.9% | 13.9% | 28.4% | 24.4% | 12.2% | 8.1% |
| <u>Years of schooling, 25+</u> | | | | | | | | | |
| Mean, arithmetic | 6.8 | 9.1 | 5.5 | 7.8 | 5.9 | 9.7 | 8.7 | 6.7 | 4.4 |
| Percentile 25 | 2 | 5 | 2 | 4 | 1 | 5 | 4 | 3 | 0 |
| Percentile 50 | 5 | 10 | 4 | 7 | 5 | 10 | 9 | 5 | 3 |
| Percentile 75 | 12 | 13 | 9 | 12 | 10 | 14 | 12 | 10 | 7 |
| TABLE A1.2 HEALTH | BOLIVIA | | | | | | | | |
| | National | Non indig | Indig | Male | Female | Non Indigenos Male | Non Indigenos Female | Indigenous Male | Indigenous Female |
| <u>Children</u> | | | | | | | | | |
| DPT vaccine | 58.0% | 70.1% | 48.7% | 57.0% | 59.1% | 69.9% | 70.3% | 47.7% | 49.9% |
| Polio vaccine | 71.8% | 78.8% | 66.3% | 72.4% | 71.1% | 79.6% | 78.0% | 67.2% | 65.3% |
| Affected by Diarrhoea | 29.1% | 24.1% | 35.5% | 28.1% | 30.2% | 24.0% | 24.3% | 33.4% | 37.7% |
| <u>Population over 5</u> | | | | | | | | | |
| <u>Attention</u> | | | | | | | | | |
| Private [3] | 15.6% | 17.8% | 14.0% | 14.7% | 16.2% | 17.3% | 18.3% | 12.9% | 14.9% |
| Public | 33.7% | 38.9% | 30.0% | 33.4% | 33.9% | 37.1% | 40.5% | 30.8% | 29.4% |
| None | 50.8% | 43.2% | 56.0% | 51.8% | 49.9% | 45.6% | 41.2% | 56.3% | 55.7% |
| <u>Health Insurance</u> | | | | | | | | | |
| Private | 3.2% | 4.6% | 1.8% | 3.3% | 3.3% | 4.4% | 4.9% | 2.0% | 1.7% |
| Public | 12.1% | 14.3% | 9.9% | 12.3% | 12.3% | 13.9% | 14.6% | 9.6% | 10.1% |
| None | 84.7% | 81.1% | 88.3% | 84.4% | 84.4% | 81.7% | 80.5% | 88.4% | 88.2% |

| TABLE A1.3 EMPLOYMENT | BOLIVIA | | | | | | | | |
|---------------------------------|----------|-----------|-------|-------|--------|-----------------------|--------|--------------------|--------|
| | National | Non indig | Indig | Male | Female | Non Indigenos Male | Female | Indigenous Male | Female |
| <u>Employment Status, 25+</u> | | | | | | | | | |
| Employed | 69.1% | 63.0% | 72.5% | 82.1% | 56.7% | 79.0% | 47.7% | 83.9% | 61.6% |
| Underemployed [4] | 8.8% | 9.9% | 8.2% | 8.6% | 9.0% | 7.9% | 11.8% | 8.9% | 7.5% |
| Unemployed | 4.1% | 4.9% | 3.6% | 2.8% | 5.3% | 4.7% | 5.2% | 1.7% | 5.4% |
| No EAP | 18.0% | 22.2% | 15.7% | 6.5% | 29.0% | 8.5% | 35.3% | 5.5% | 25.6% |
| <u>Employment Status, 7-15</u> | | | | | | | | | |
| Employed | 14.5% | 8.6% | 25.3% | 15.5% | 13.4% | 9.7% | 7.3% | 27.1% | 23.6% |
| Underemployed [4] | 1.6% | 1.1% | 2.5% | 2.1% | 1.1% | 1.5% | 0.7% | 3.2% | 1.9% |
| Unemployed | 10.1% | 5.2% | 19.3% | 9.8% | 10.5% | 4.7% | 5.7% | 20.1% | 18.5% |
| No EAP | 73.7% | 85.1% | 52.9% | 72.6% | 74.9% | 84.1% | 86.2% | 49.6% | 56.0% |
| <u>Employment Status, 14-17</u> | | | | | | | | | |
| Employed | 27.6% | 20.1% | 36.3% | 32.8% | 22.2% | 24.4% | 15.8% | 41.9% | 29.9% |
| Underemployed [4] | 4.5% | 4.6% | 4.4% | 4.7% | 4.3% | 5.0% | 4.3% | 4.4% | 4.3% |
| Unemployed | 10.9% | 6.6% | 15.9% | 11.6% | 10.2% | 7.5% | 5.6% | 16.0% | 15.8% |
| No EAP | 56.9% | 68.7% | 43.4% | 50.9% | 63.3% | 63.2% | 74.2% | 37.6% | 49.9% |
| <u>Labour Category, 25+</u> | | | | | | | | | |
| Employer | 5.8% | 6.5% | 5.4% | 8.3% | 2.5% | 9.4% | 2.6% | 7.7% | 2.5% |
| White Collar [5] | 22.2% | 36.3% | 15.2% | 25.3% | 18.2% | 37.9% | 34.1% | 18.8% | 10.7% |
| Blue Collar [6] | 9.3% | 10.3% | 8.8% | 11.9% | 6.0% | 12.6% | 7.1% | 11.5% | 5.4% |
| Self-emp urban [7] | 29.9% | 33.1% | 28.3% | 23.5% | 37.9% | 25.2% | 43.9% | 22.7% | 35.1% |
| Self-emp rural [7] | 32.9% | 13.8% | 42.4% | 30.9% | 35.4% | 15.0% | 12.2% | 39.2% | 46.2% |
| <u>Wage per hour [8]</u> | | | | | | | | | |
| Mean, arithmetic | 8.38 | 9.75 | 6.95 | 8.80 | 7.59 | 10.72 | 8.20 | 7.00 | 6.82 |
| Percentile 25 | 2.63 | 2.88 | 2.50 | 2.88 | 2.09 | 3.13 | 2.40 | 2.68 | 1.81 |
| Percentile 50 | 4.55 | 5.49 | 3.85 | 4.51 | 4.86 | 5.21 | 5.83 | 3.86 | 3.85 |
| Percentile 75 | 9.13 | 11.26 | 7.72 | 8.89 | 10.00 | 11.54 | 11.25 | 7.69 | 8.08 |
| <u>Affiliations</u> | | | | | | | | | |
| Trade Union | 19.7% | 17.4% | 21.0% | 27.3% | 12.6% | 22.3% | 12.9% | 30.1% | 12.4% |
| Pension Fund | 10.3% | 15.3% | 7.6% | 13.3% | 7.6% | 17.2% | 13.4% | 11.2% | 4.3% |

| TABLE A1.4 HOUSING QUALITY | BOLIVIA | | | | | | | | |
|--------------------------------|----------|-----------|-------|-------|--------|-----------------------|--------|--------------------|--------|
| | National | Non indig | Indig | Male | Female | Non Indigenos Male | Female | Indigenous Male | Female |
| <u>Services</u> | | | | | | | | | |
| Running water | 64.5% | 79.6% | 56.9% | 62.0% | 74.8% | 77.2% | 87.7% | 54.6% | 66.9% |
| Sewerage | 30.9% | 39.9% | 26.2% | 28.6% | 40.0% | 36.6% | 51.4% | 24.7% | 32.9% |
| Electricity | 64.0% | 75.7% | 58.0% | 61.8% | 73.0% | 74.1% | 81.1% | 55.8% | 68.0% |
| Phone | 24.7% | 38.4% | 17.7% | 23.3% | 30.3% | 35.9% | 47.0% | 17.2% | 19.9% |
| <u>Housing Characteristics</u> | | | | | | | | | |
| No dirt floor | 65.3% | 79.9% | 57.8% | 63.5% | 72.6% | 78.0% | 86.7% | 56.4% | 63.9% |
| Rooms per head | 0.73 | 0.80 | 0.70 | 0.67 | 1.01 | 0.70 | 1.14 | 0.65 | 0.92 |
| Bedrooms per head | 0.53 | 0.60 | 0.49 | 0.51 | 0.59 | 0.57 | 0.71 | 0.48 | 0.52 |
| Kitchen [9] | 75.3% | 76.3% | 74.8% | 75.9% | 72.8% | 76.9% | 74.3% | 75.5% | 71.9% |
| Cooking fuel [10] | 63.6% | 75.4% | 57.6% | 61.1% | 73.8% | 72.2% | 86.6% | 55.7% | 65.9% |

| TABLE A1.5 POVERTY | BOLIVIA | | | | | | | | |
|--------------------|----------|-----------|-------|-------|--------|-----------------------|--------|--------------------|--------|
| | National | Non indig | Indig | Male | Female | Non Indigenos Male | Female | Indigenous Male | Female |
| Non poor | 42.5% | 58.6% | 34.3% | 40.0% | 52.6% | 55.7% | 68.4% | 32.4% | 42.7% |
| Non extreme | 30.4% | 28.7% | 31.3% | 30.6% | 29.4% | 30.6% | 22.0% | 30.7% | 34.0% |
| Extremely poor | 27.1% | 12.8% | 34.4% | 29.3% | 18.0% | 13.7% | 9.5% | 36.9% | 23.3% |

| TABLE A1.6 SOCIAL ASSISTANCE | National | Non indig | Indig | Male | BOLIVIA | | Non Indigenos | | Indigenous | |
|------------------------------|----------|-----------|-------|------|---------|------|---------------|------|------------|----|
| | | | | | Female | Male | Female | Male | Female | |
| Received Soc As [11] | | | | | | | | | | |
| Urban | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Rural | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benefit [12] | | | | | | | | | | |
| Urban | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Rural | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

| TABLE A1.7 POLITICAL CITIZENSHIP | National | Non indig | Indig | Male | BOLIVIA | | Non Indigenos | | Indigenous | |
|----------------------------------|----------|-----------|-------|-------|---------|-------|---------------|-------|------------|----|
| | | | | | Female | Male | Female | Male | Female | |
| Has ID card | 87.3% | 89.0% | 86.2% | 89.7% | 85.0% | 89.6% | 88.5% | 89.8% | 82.8% | |
| Voted [13] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

[1] Includes religious schools, [2] Includes pre-school, [3] includes attention at home if the service was provided by a medicine professional. The universe is those who reported having been sick or ill, or having had an accident and whose cause for not seeking attention was not "light condition" [4] those who reported being willing and able to work more hours per week [5] In the case of Guatemala, includes blue collars who were paid in a monthly basis. [6] Includes domestic workers [7] Includes non-remunerated family workers. [8] For urban workers with nonzero wages. [9] The dwelling has a separate room specially for cooking [10] electricity or gas. [11] Households that received benefits from social programs ran by the State [12] How much did the household receive, in local currency units. [13] Share of people who voted in the last electoral process before the survey

| GUATEMALA | | | | | | | | | |
|--------------------------------|----------|-----------|-------|-------|--------|---------------|--------|------------|--------|
| EDUCATION | National | Non indig | Indig | Male | Female | Non Indigenos | | Indigenous | |
| | | | | | | Male | Female | Male | Female |
| <u>Literacy</u> | | | | | | | | | |
| literacy rate, 15+ | 74.6% | 84.0% | 59.3% | 82.2% | 67.7% | 88.4% | 80.1% | 72.3% | 47.7% |
| <u>Schooling, 6-17</u> | | | | | | | | | |
| Private [1] | 12.0% | 16.7% | 5.4% | 12.0% | 12.1% | 16.2% | 17.3% | 5.7% | 5.1% |
| Public | 57.9% | 57.9% | 57.9% | 61.3% | 54.5% | 59.5% | 56.3% | 63.9% | 52.0% |
| None | 30.0% | 25.3% | 36.6% | 26.8% | 33.4% | 24.3% | 26.5% | 30.4% | 42.9% |
| <u>Level of education, 25+</u> | | | | | | | | | |
| No level [2] | 41.3% | 28.8% | 61.5% | 32.8% | 48.9% | 23.5% | 33.5% | 47.6% | 74.2% |
| Elementary School | 39.3% | 43.7% | 32.1% | 44.8% | 34.3% | 46.1% | 41.5% | 42.7% | 22.5% |
| High School | 13.3% | 18.4% | 5.1% | 14.3% | 12.5% | 18.4% | 18.5% | 7.8% | 2.7% |
| Post High School | 5.6% | 8.4% | 1.2% | 7.4% | 4.1% | 10.8% | 6.2% | 1.8% | 0.7% |
| <u>Years of schooling, 25+</u> | | | | | | | | | |
| Mean, arithmetic | 3.8 | 5.1 | 1.7 | 4.5 | 3.2 | 5.7 | 4.6 | 2.5 | 1.1 |
| Percentile 25 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Percentile 50 | 2 | 4 | 0 | 3 | 1 | 5 | 3 | 1 | 0 |
| Percentile 75 | 6 | 8 | 3 | 6 | 6 | 9 | 6 | 4 | 1 |

| GUATEMALA | | | | | | | | | |
|--------------------------|----------|-----------|-------|-------|--------|---------------|--------|------------|--------|
| HEALTH | National | Non indig | Indig | Male | Female | Non Indigenos | | Indigenous | |
| | | | | | | Male | Female | Male | Female |
| <u>Children</u> | | | | | | | | | |
| DPT | 85.7% | 88.5% | 82.6% | 85.0% | 86.4% | 88.4% | 88.7% | 81.4% | 84.0% |
| Polio | 85.0% | 87.0% | 82.8% | 84.2% | 85.8% | 86.4% | 87.7% | 81.9% | 83.8% |
| Diarrhoea | 33.3% | 29.2% | 38.0% | 34.4% | 32.2% | 29.8% | 28.6% | 39.3% | 36.4% |
| <u>Population over 5</u> | | | | | | | | | |
| <u>Attention</u> | | | | | | | | | |
| Private | 33.9% | 39.6% | 25.0% | 33.1% | 34.5% | 39.4% | 39.8% | 23.5% | 26.2% |
| Public | 30.6% | 32.1% | 28.3% | 30.6% | 30.5% | 32.1% | 32.0% | 28.5% | 28.2% |
| None | 35.5% | 28.3% | 46.7% | 36.3% | 35.0% | 28.6% | 28.2% | 48.1% | 45.7% |
| <u>Health Insurance</u> | | | | | | | | | |
| Private | 2.5% | 3.8% | 0.6% | 1.6% | 1.6% | 5.1% | 2.5% | 1.1% | 0.2% |
| Public | 8.3% | 11.4% | 3.7% | 6.3% | 6.3% | 13.5% | 9.5% | 5.8% | 1.6% |
| None | 89.3% | 84.8% | 95.7% | 92.1% | 92.1% | 81.4% | 88.0% | 93.1% | 98.2% |

| GUATEMALA | | | | | | | | | |
|--------------------------------|----------|-----------|-------|-------|--------|---------------|--------|------------|--------|
| HOUSING QUALITY | National | Non indig | Indig | Male | Female | Non Indigenos | | Indigenous | |
| | | | | | | Male | Female | Male | Female |
| <u>Services</u> | | | | | | | | | |
| Running water | 70.8% | 75.3% | 63.7% | 69.3% | 77.3% | 74.2% | 80.2% | 62.0% | 72.0% |
| Sewerage | 38.2% | 47.8% | 23.3% | 35.5% | 50.5% | 45.1% | 59.0% | 21.1% | 34.6% |
| Electricity | 73.1% | 81.3% | 60.3% | 71.3% | 81.1% | 79.9% | 87.1% | 58.5% | 69.9% |
| Phone | 17.2% | 25.1% | 4.9% | 16.1% | 21.8% | 24.1% | 29.1% | 4.3% | 8.3% |
| <u>Housing Characteristics</u> | | | | | | | | | |
| No dirt floor | 59.3% | 71.7% | 40.1% | 58.0% | 65.0% | 71.2% | 73.6% | 38.3% | 49.1% |
| Rooms per head | 0.54 | 0.62 | 0.40 | 0.50 | 0.68 | 0.60 | 0.73 | 0.36 | 0.58 |
| Bedrooms per head | 0.49 | 0.55 | 0.41 | 0.49 | 0.51 | 0.55 | 0.53 | 0.40 | 0.47 |
| Kitchen | 41.9% | 49.2% | 30.7% | 41.9% | 41.9% | 48.9% | 50.1% | 31.5% | 26.6% |
| Cooking with gas or e. | | | | | | | | | |
| House owner | 54.7% | 49.3% | 63.1% | 55.3% | 52.0% | 49.6% | 47.9% | 63.8% | 59.8% |

| TABLE A2.3 EMPLOYMENT | GUATEMALA | | | | | | | | |
|---------------------------------|-----------|-----------|-------|-------|--------|-----------------------|-------------------------|--------------------|----------------------|
| | National | Non indig | Indig | Male | Female | Non Indigenos Male | Non Indigenos Female | Indigenous Male | Indigenous Female |
| <u>Employment Status, 25+</u> | | | | | | | | | |
| Employed | 62.3% | 61.2% | 64.2% | 88.8% | 38.7% | 86.1% | 39.3% | 93.2% | 37.8% |
| Underemployed [4] | 3.6% | 4.3% | 2.6% | 2.7% | 4.5% | 3.3% | 5.2% | 1.8% | 3.4% |
| Unemployed | 1.7% | 1.8% | 1.7% | 1.1% | 2.3% | 1.5% | 2.0% | 0.5% | 2.7% |
| No EAP | 32.3% | 32.8% | 31.5% | 7.4% | 54.5% | 9.2% | 53.6% | 4.5% | 56.1% |
| <u>Employment Status, 7-15</u> | | | | | | | | | |
| Employed | 18.7% | 14.6% | 24.4% | 23.9% | 13.2% | 18.9% | 10.1% | 31.0% | 17.6% |
| Underemployed [4] | 0.7% | 0.9% | 0.6% | 1.2% | 0.3% | 1.3% | 0.4% | 1.0% | 0.2% |
| Unemployed | 3.9% | 2.8% | 5.5% | 5.1% | 2.6% | 3.5% | 1.9% | 7.4% | 3.5% |
| No EAP | 76.7% | 81.8% | 69.5% | 69.8% | 83.9% | 76.3% | 87.6% | 60.6% | 78.7% |
| <u>Employment Status, 14-17</u> | | | | | | | | | |
| Employed | 45.2% | 40.6% | 51.9% | 60.3% | 30.1% | 54.3% | 26.1% | 69.7% | 35.4% |
| Underemployed [4] | 2.1% | 2.1% | 2.1% | 3.1% | 1.1% | 3.6% | 0.5% | 2.2% | 2.0% |
| Unemployed | 4.3% | 3.1% | 5.9% | 4.3% | 4.2% | 3.6% | 2.6% | 5.4% | 6.4% |
| No EAP | 48.5% | 54.2% | 40.1% | 32.3% | 64.6% | 38.6% | 70.7% | 22.6% | 56.2% |
| <u>Labour Category, 25+</u> | | | | | | | | | |
| Employer | 6.7% | 8.0% | 4.7% | 6.8% | 6.4% | 8.3% | 7.4% | 4.6% | 4.8% |
| White Collar [5] | 26.7% | 33.6% | 15.9% | 29.6% | 21.3% | 36.8% | 28.1% | 18.9% | 9.8% |
| Blue Collar [6] | 19.6% | 18.4% | 21.5% | 21.7% | 15.7% | 19.9% | 15.8% | 24.5% | 15.6% |
| Self-emp urban [7] | 16.2% | 17.3% | 14.4% | 11.7% | 24.3% | 11.6% | 27.1% | 11.8% | 19.6% |
| Self-emp rural [7] | 30.9% | 22.7% | 43.5% | 30.1% | 32.2% | 23.4% | 21.6% | 40.1% | 50.1% |
| <u>Wage per hour [8]</u> | | | | | | | | | |
| Mean, arithmetic | 10.09 | 11.23 | 5.87 | 10.90 | 8.67 | 12.40 | 9.35 | 6.10 | 5.27 |
| Percentile 25 | 3.27 | 3.60 | 2.47 | 3.46 | 2.56 | 3.85 | 2.99 | 2.79 | 1.57 |
| Percentile 50 | 5.64 | 6.15 | 3.85 | 5.77 | 5.08 | 6.52 | 5.77 | 4.03 | 3.46 |
| Percentile 75 | 11.54 | 12.82 | 6.73 | 11.54 | 11.03 | 13.72 | 11.54 | 6.84 | 6.15 |
| <u>Affiliations</u> | | | | | | | | | |
| Trade Union | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Pension Fund | NA | NA | NA | NA | NA | NA | NA | NA | NA |

| TABLE A2.4 HOUSING QUALITY | GUATEMALA | | | | | | | | |
|--------------------------------|-----------|-----------|-------|-------|--------|-----------------------|-------------------------|--------------------|----------------------|
| | National | Non indig | Indig | Male | Female | Non Indigenos Male | Non Indigenos Female | Indigenous Male | Indigenous Female |
| <u>Services</u> | | | | | | | | | |
| Running water | 70.8% | 75.3% | 63.7% | 69.3% | 77.3% | 74.2% | 80.2% | 62.0% | 72.0% |
| Sewerage | 38.2% | 47.8% | 23.3% | 35.5% | 50.5% | 45.1% | 59.0% | 21.1% | 34.6% |
| Electricity | 73.1% | 81.3% | 60.3% | 71.3% | 81.1% | 79.9% | 87.1% | 58.5% | 69.9% |
| Phone | 17.2% | 25.1% | 4.9% | 16.1% | 21.8% | 24.1% | 29.1% | 4.3% | 8.3% |
| <u>Housing Characteristics</u> | | | | | | | | | |
| No dirt floor | 59.3% | 71.7% | 40.1% | 58.0% | 65.0% | 71.2% | 73.6% | 38.3% | 49.1% |
| Rooms per head | 0.54 | 0.62 | 0.40 | 0.50 | 0.68 | 0.60 | 0.73 | 0.36 | 0.58 |
| Bedrooms per head | 0.49 | 0.55 | 0.41 | 0.49 | 0.51 | 0.55 | 0.53 | 0.40 | 0.47 |
| Kitchen [9] | 41.9% | 49.2% | 30.7% | 41.9% | 41.9% | 48.9% | 50.1% | 31.5% | 26.6% |
| Cooking fuel [10] | NA | NA | NA | NA | NA | NA | NA | NA | NA |

| TABLE A2.5 POVERTY | GUATEMALA | | | | | | | | |
|--------------------|-----------|-----------|-------|-------|--------|-----------------------|-------------------------|--------------------|----------------------|
| | National | Non indig | Indig | Male | Female | Non Indigenos Male | Non Indigenos Female | Indigenous Male | Indigenous Female |
| Non poor | 54.2% | 67.9% | 33.0% | 52.1% | 63.4% | 66.2% | 74.6% | 31.1% | 42.6% |
| Non extreme | 35.0% | 27.2% | 47.1% | 36.1% | 30.2% | 28.4% | 22.7% | 47.6% | 44.3% |
| Extremely poor | 10.8% | 4.9% | 20.0% | 11.8% | 6.3% | 5.4% | 2.7% | 21.3% | 13.1% |

| TABLE A2.6 SOCIAL ASSISTANCE | GUATEMALA | | | | | | | | | |
|------------------------------|-----------|-----------|-----------|-----------|----------|---------------|-------|------------|-------|--------|
| | National | Non indig | Indig | Male | Female | Non Indigenos | | Indigenous | | |
| | ethnic | gender | NI gender | IN gender | M ethnic | F ethnic | Male | Female | Male | Female |
| Received Soc As [11] | | | | | | | | | | |
| Urban | 19.1% | 18.1% | 21.8% | 19.0% | 19.5% | 17.6% | 20.0% | 22.8% | 17.8% | |
| Rural | 32.8% | 30.5% | 34.9% | 31.6% | 32.7% | 31.2% | 26.3% | 34.4% | 37.5% | |
| Benefit [12] | | | | | | | | | | |
| Urban | 155.0 | 167.0 | 126.1 | 154.1 | 157.9 | 166.8 | 167.6 | 127.0 | 121.9 | |
| Rural | 208.1 | 233.2 | 185.4 | 205.7 | 222.4 | 223.5 | 297.1 | 189.1 | 164.6 | |

| TABLE A2.7 POLITICAL CITIZENSHIP | GUATEMALA | | | | | | | | |
|----------------------------------|-----------|-----------|-------|-------|--------|---------------|--------|------------|--------|
| | National | Non indig | Indig | Male | Female | Non Indigenos | | Indigenous | |
| | | | | | | Male | Female | Male | Female |
| Has ID card | 72.9% | 76.6% | 66.9% | 83.1% | 63.9% | 83.7% | 70.4% | 82.2% | 53.2% |
| Voted [13] | 53.2% | 55.7% | 49.1% | 66.4% | 41.5% | 65.5% | 47.2% | 67.9% | 32.1% |

[1] Includes religious schools, [2] Includes pre-school, [3] includes attention at home if the service was provided by a medicine professional. The universe is those who reported having been sick or ill, or having had an accident and whose cause for not seeking attention was not "light condition" [4] those who reported being willing and able to work more hours per week [5] In the case of Guatemala, includes blue collars who were paid in a monthly basis. [6] Includes domestic workers [7] Includes non-remunerated family workers. [8] For urban workers with nonzero wages. [9] The dwelling has a separate room specially for cooking [10] electricity or gas. [11] Households that received benefits from social programs ran by the State [12] How much did the household receive, in local currency units. [13] Share of people who voted in the last electoral process before the survey

| TABLE A3.1 EDUCATION | National | Non indig | Indig | PERU | | Non Indigenos | | Indigenous | |
|--------------------------------|----------|-----------|-------|-------|--------|---------------|--------|------------|--------|
| | | | | Male | Female | Male | Female | Male | Female |
| <u>Literacy</u> | | | | | | | | | |
| literacy rate, 15+ | 88.1% | 96.9% | 83.9% | 93.9% | 82.6% | 98.4% | 95.6% | 91.9% | 76.2% |
| <u>Schooling, 6-17</u> | | | | | | | | | |
| Private [1] | 9.4% | 20.0% | 4.0% | 9.9% | 8.8% | 21.5% | 18.4% | 4.1% | 4.0% |
| Public | 81.8% | 74.3% | 85.5% | 81.9% | 81.6% | 73.0% | 75.7% | 86.4% | 84.7% |
| None | 8.9% | 5.7% | 10.4% | 8.2% | 9.5% | 5.5% | 5.9% | 9.6% | 11.3% |
| <u>Level of education, 25+</u> | | | | | | | | | |
| No level [2] | 10.6% | 2.8% | 14.0% | 4.6% | 16.1% | 0.9% | 4.5% | 6.1% | 21.3% |
| Elementary School | 35.0% | 16.8% | 42.9% | 34.5% | 35.5% | 14.9% | 18.5% | 42.7% | 43.1% |
| High School | 32.5% | 40.2% | 29.1% | 37.0% | 28.3% | 41.8% | 38.8% | 35.0% | 23.6% |
| Post High School | 21.0% | 38.4% | 13.5% | 22.9% | 19.3% | 40.4% | 36.7% | 15.5% | 11.6% |
| <u>Years of schooling, 25+</u> | | | | | | | | | |
| Mean, arithmetic | 8.3 | 11.1 | 6.9 | 9.1 | 7.5 | 11.5 | 10.7 | 8.0 | 6.0 |
| Percentile 25 | 4 | 9 | 2 | 5 | 2 | 10 | 9 | 4 | 0 |
| Percentile 50 | 9 | 11 | 6 | 11 | 8 | 11 | 11 | 9 | 5 |
| Percentile 75 | 11 | 14 | 11 | 12 | 11 | 14 | 14 | 11 | 11 |

| TABLE A3.2 HEALTH | National | Non indig | Indig | PERU | | Non Indigenos | | Indigenous | |
|--------------------------|----------|-----------|-------|-------|--------|---------------|--------|------------|--------|
| | | | | Male | Female | Male | Female | Male | Female |
| <u>Children</u> | | | | | | | | | |
| DPT vaccine | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Polio vaccine | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Affected by Diarrhoea | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| <u>Population over 5</u> | | | | | | | | | |
| <u>Attention</u> | | | | | | | | | |
| Private [3] | 5.0% | 7.7% | 3.8% | 4.3% | 5.5% | 6.5% | 8.7% | 3.4% | 4.1% |
| Public | 33.2% | 34.6% | 32.6% | 32.2% | 34.1% | 34.1% | 35.0% | 31.3% | 33.6% |
| None | 61.8% | 57.7% | 63.6% | 63.5% | 60.4% | 59.3% | 56.4% | 65.3% | 62.2% |
| <u>Health Insurance</u> | | | | | | | | | |
| Private | 2.2% | 5.0% | 0.9% | 2.1% | 2.1% | 5.1% | 4.8% | 0.9% | 0.8% |
| Public | 36.8% | 41.4% | 34.6% | 37.1% | 37.1% | 40.4% | 42.3% | 34.6% | 34.6% |
| None | 61.0% | 53.7% | 64.6% | 60.8% | 60.8% | 54.5% | 52.9% | 64.5% | 64.6% |

| TABLE A3.3 EMPLOYMENT | National | Non indig | Indig | PERU | | Non Indigenos | | Indigenous | |
|---------------------------------|----------|-----------|-------|-------|--------|---------------|--------|------------|--------|
| | | | | Male | Female | Male | Female | Male | Female |
| <u>Employment Status, 25+</u> | | | | | | | | | |
| Employed | 63.9% | 58.3% | 66.4% | 77.0% | 52.0% | 72.1% | 46.3% | 79.0% | 54.5% |
| Underemployed [4] | 8.3% | 8.0% | 8.4% | 8.3% | 8.3% | 7.8% | 8.3% | 8.5% | 8.3% |
| Unemployed | 4.5% | 5.7% | 4.0% | 3.6% | 5.3% | 5.8% | 5.7% | 2.7% | 5.2% |
| No EAP | 23.3% | 27.9% | 21.3% | 11.1% | 34.4% | 14.3% | 39.7% | 9.8% | 32.0% |
| <u>Employment Status, 7-15</u> | | | | | | | | | |
| Employed | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Underemployed [4] | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Unemployed | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| No EAP | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| <u>Employment Status, 14-17</u> | | | | | | | | | |
| Employed | 27.0% | 15.5% | 33.0% | 29.9% | 24.1% | 17.4% | 13.5% | 36.0% | 29.8% |
| Underemployed [4] | 4.5% | 2.8% | 5.4% | 5.7% | 3.3% | 3.8% | 1.9% | 6.6% | 4.0% |
| Unemployed | 13.4% | 7.5% | 16.5% | 14.8% | 12.0% | 9.0% | 6.1% | 17.7% | 15.2% |
| No EAP | 55.0% | 74.2% | 45.1% | 49.6% | 60.7% | 69.7% | 78.5% | 39.7% | 51.0% |
| <u>Labour Category, 25+</u> | | | | | | | | | |
| Employer | 6.3% | 5.1% | 6.8% | 8.9% | 3.1% | 7.3% | 2.4% | 9.6% | 3.3% |
| White Collar [5] | 19.7% | 38.2% | 12.8% | 20.5% | 18.8% | 36.2% | 40.8% | 14.6% | 10.6% |
| Blue Collar [6] | 17.5% | 19.3% | 16.9% | 22.5% | 11.3% | 24.2% | 13.0% | 21.8% | 10.7% |
| Self-emp urban [7] | 27.6% | 33.1% | 25.6% | 22.8% | 33.7% | 29.0% | 38.3% | 20.5% | 32.0% |
| Self-emp rural [7] | 28.8% | 4.3% | 38.0% | 25.3% | 33.1% | 3.3% | 5.5% | 33.6% | 43.4% |
| <u>Wage per hour [8]</u> | | | | | | | | | |
| Mean, arithmetic | 5.33 | 6.82 | 3.99 | 5.78 | 4.57 | 7.59 | 5.73 | 4.35 | 3.29 |
| Percentile 25 | 1.85 | 2.06 | 1.67 | 2.00 | 1.46 | 2.22 | 1.85 | 1.88 | 1.25 |
| Percentile 50 | 2.97 | 3.36 | 2.60 | 3.13 | 2.71 | 3.45 | 3.23 | 2.78 | 2.22 |
| Percentile 75 | 5.23 | 6.02 | 4.62 | 5.26 | 5.19 | 6.15 | 5.87 | 4.79 | 4.17 |
| <u>Affiliations</u> | | | | | | | | | |
| Trade Union | 5.7% | 7.1% | 5.3% | 8.1% | 3.1% | 10.4% | 4.2% | 7.5% | 2.7% |
| Pension Fund | 14.3% | 22.9% | 10.6% | 19.4% | 9.7% | 28.7% | 17.8% | 15.5% | 6.1% |

| TABLE A3.4 HOUSING QUALITY | National | Non indig | Indig | PERU | | Non Indigenos | | Indigenous | |
|--------------------------------|----------|-----------|-------|-------|--------|---------------|--------|------------|--------|
| | | | | Male | Female | Male | Female | Male | Female |
| <u>Services</u> | | | | | | | | | |
| Running water | 63.9% | 83.2% | 57.4% | 62.8% | 67.9% | 82.6% | 85.1% | 56.7% | 60.5% |
| Sewerage | 49.2% | 77.6% | 39.8% | 47.4% | 56.3% | 76.5% | 80.9% | 38.4% | 45.7% |
| Electricity | 71.8% | 93.0% | 64.7% | 70.8% | 75.7% | 92.9% | 93.3% | 63.9% | 68.2% |
| Phone | 25.2% | 48.9% | 17.3% | 24.6% | 27.6% | 48.9% | 49.1% | 17.1% | 18.4% |
| <u>Housing Characteristics</u> | | | | | | | | | |
| No dirt floor | 53.4% | 81.1% | 44.4% | 52.4% | 57.2% | 81.3% | 80.6% | 43.7% | 47.3% |
| Rooms per head | 0.86 | 1.01 | 0.82 | 0.81 | 1.08 | 0.95 | 1.20 | 0.77 | 1.03 |
| Bedrooms per head | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Kitchen [9] | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Cooking fuel [10] | 35.7% | 62.2% | 26.9% | 35.0% | 38.3% | 63.1% | 59.2% | 26.3% | 29.4% |

| TABLE A3.5 POVERTY | National | Non indig | Indig | PERU | | Non Indigenos | | Indigenous | |
|--------------------|----------|-----------|-------|-------|--------|---------------|--------|------------|--------|
| | | | | Male | Female | Male | Female | Male | Female |
| Non poor | 53.2% | 73.3% | 46.6% | 51.5% | 60.1% | 72.1% | 76.9% | 45.1% | 52.9% |
| Non extreme | 27.3% | 21.2% | 29.3% | 27.8% | 25.5% | 22.2% | 18.4% | 29.5% | 28.5% |
| Extremely poor | 19.5% | 5.5% | 24.1% | 20.7% | 14.4% | 5.7% | 4.8% | 25.4% | 18.6% |

| TABLE A3.6 SOCIAL ASSISTANCE | National | Non indig | Indig | PERU | | Non Indigenos | | Indigenous | |
|------------------------------|----------|-----------|-------|-------|--------|---------------|--------|------------|--------|
| | | | | Male | Female | Male | Female | Male | Female |
| Received Soc As [11] | | | | | | | | | |
| Urban | 27.0% | 21.4% | 30.1% | 27.8% | 24.2% | 23.1% | 16.5% | 30.3% | 29.2% |
| Rural | 58.6% | 54.1% | 58.9% | 59.9% | 51.7% | 57.1% | 40.7% | 60.1% | 52.4% |
| Benefit [12] | | | | | | | | | |
| Urban | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Rural | NA | NA | NA | NA | NA | NA | NA | NA | NA |

| TABLE A3.7 POLITICAL CITIZENSHIP | National | Non indig | Indig | PERU | | Non Indigenos | | Indigenous | |
|----------------------------------|----------|-----------|-------|-------|--------|---------------|--------|------------|--------|
| | | | | Male | Female | Male | Female | Male | Female |
| Has ID card | 93.4% | 96.1% | 92.3% | 94.4% | 92.4% | 95.9% | 96.2% | 93.8% | 90.8% |
| Voted [13] | 87.2% | 89.1% | 86.4% | 87.7% | 86.7% | 87.7% | 90.3% | 87.7% | 85.1% |

[1] Includes religious schools, [2] Includes pre-school, [3] includes attention at home if the service was provided by a medicine professional. The universe is those who reported having been sick or ill, or having had an accident and whose cause for not seeking attention was not "light condition" [4] those who reported being willing and able to work more hours per week [5] In the case of Guatemala, includes blue collars who were paid in a monthly basis. [6] Includes domestic workers [7] Includes non-remunerated family workers. [8] For urban workers with nonzero wages. [9] The dwelling has a separate room specially for cooking [10] electricity or gas. [11] Households that received benefits from social programs ran by the State [12] How much did the household receive, in local currency units. [13] Share of people who voted in the last electoral process before the survey

| TABLE A4.1 EDUCATION | BOLIVIA | | | | | | GUATEMALA | | | | | | PERU | | | | | |
|--------------------------------|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|
| | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] |
| <u>Literacy</u> | | | | | | | | | | | | | | | | | | |
| literacy rate, 15+ | 0.86 | 0.86 | 0.97 | 0.79 | 0.95 | 0.77 | 0.71 | 0.82 | 0.91 | 0.66 | 0.82 | 0.60 | 0.87 | 0.88 | 0.97 | 0.83 | 0.93 | 0.80 |
| <u>Schooling, 6-17</u> | | | | | | | | | | | | | | | | | | |
| Private [1] | 0.42 | 0.96 | 0.98 | 0.89 | 0.44 | 0.40 | 0.32 | 1.01 | 1.06 | 0.89 | 0.35 | 0.30 | 0.20 | 0.89 | 0.86 | 0.98 | 0.19 | 0.22 |
| Public | 1.00 | 0.99 | 1.00 | 0.97 | 1.02 | 0.98 | 1.00 | 0.89 | 0.95 | 0.81 | 1.07 | 0.92 | 1.15 | 1.00 | 1.04 | 0.98 | 1.18 | 1.12 |
| None | 2.09 | 1.13 | 1.00 | 1.23 | 1.88 | 2.31 | 1.45 | 1.25 | 1.09 | 1.41 | 1.25 | 1.62 | 1.82 | 1.16 | 1.07 | 1.18 | 1.73 | 1.91 |
| <u>Level of education, 25+</u> | | | | | | | | | | | | | | | | | | |
| No level [2] | 3.12 | 3.24 | 2.27 | 3.49 | 2.27 | 3.49 | 2.14 | 1.49 | 1.43 | 1.56 | 2.03 | 2.21 | 4.96 | 3.52 | 5.32 | 3.47 | 7.20 | 4.70 |
| Elementary School | 1.40 | 0.90 | 1.09 | 0.83 | 1.61 | 1.22 | 0.73 | 0.77 | 0.90 | 0.53 | 0.93 | 0.54 | 2.55 | 1.03 | 1.24 | 1.01 | 2.86 | 2.33 |
| High School | 0.53 | 0.69 | 0.85 | 0.55 | 0.63 | 0.41 | 0.28 | 0.88 | 1.01 | 0.35 | 0.42 | 0.15 | 0.72 | 0.76 | 0.93 | 0.67 | 0.84 | 0.61 |
| Post High School | 0.38 | 0.78 | 0.86 | 0.67 | 0.43 | 0.33 | 0.15 | 0.56 | 0.57 | 0.37 | 0.17 | 0.11 | 0.35 | 0.85 | 0.91 | 0.74 | 0.38 | 0.32 |
| <u>Years of schooling, 25+</u> | | | | | | | | | | | | | | | | | | |
| Mean, arithmetic | 0.61 | 0.77 | 0.90 | 0.66 | 0.70 | 0.51 | 0.34 | 0.73 | 0.80 | 0.42 | 0.44 | 0.23 | 0.63 | 0.83 | 0.93 | 0.75 | 0.69 | 0.56 |
| Percentile 25 | 0.40 | 0.25 | 0.80 | 0.00 | 0.60 | 0.00 | | | | | | | 0.22 | 0.40 | 0.90 | 0.00 | 0.40 | 0.00 |
| Percentile 50 | 0.40 | 0.71 | 0.90 | 0.60 | 0.50 | 0.33 | 0.00 | 0.33 | 0.60 | 0.00 | 0.20 | 0.00 | 0.55 | 0.73 | 1.00 | 0.56 | 0.82 | 0.45 |
| Percentile 75 | 0.69 | 0.83 | 0.86 | 0.70 | 0.71 | 0.58 | 0.38 | 1.00 | 0.67 | 0.25 | 0.44 | 0.17 | 0.79 | 0.92 | 1.00 | 1.00 | 0.79 | 0.79 |

| TABLE A4.2 HEALTH | BOLIVIA | | | | | | GUATEMALA | | | | | | PERU | | | | | |
|--------------------------|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|
| | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] |
| <u>Children</u> | | | | | | | | | | | | | | | | | | |
| DPT | 0.69 | 1.04 | 1.01 | 1.05 | 0.68 | 0.71 | 0.93 | 1.02 | 1.00 | 1.03 | 0.92 | 0.95 | NA | NA | NA | NA | NA | NA |
| Polio | 0.84 | 0.98 | 0.98 | 0.97 | 0.84 | 0.84 | 0.95 | 1.02 | 1.01 | 1.02 | 0.95 | 0.96 | NA | NA | NA | NA | NA | NA |
| Diarrhoea | 1.47 | 1.07 | 1.01 | 1.13 | 1.39 | 1.55 | 1.30 | 0.94 | 0.96 | 0.93 | 1.32 | 1.27 | NA | NA | NA | NA | NA | NA |
| <u>Population over 5</u> | | | | | | | | | | | | | | | | | | |
| <u>Attention</u> | | | | | | | | | | | | | | | | | | |
| Private | 0.78 | 1.10 | 1.06 | 1.15 | 0.74 | 0.81 | 0.63 | 1.04 | 1.01 | 1.11 | 0.60 | 0.66 | 0.49 | 1.28 | 1.32 | 1.23 | 0.51 | 0.48 |
| Public | 0.77 | 1.01 | 1.09 | 0.96 | 0.83 | 0.73 | 0.88 | 1.00 | 1.00 | 0.99 | 0.89 | 0.88 | 0.94 | 1.06 | 1.03 | 1.07 | 0.92 | 0.96 |
| None | 1.29 | 0.96 | 0.91 | 0.99 | 1.24 | 1.35 | 1.65 | 0.96 | 0.99 | 0.95 | 1.68 | 1.62 | 1.10 | 0.95 | 0.95 | 0.95 | 1.10 | 1.10 |
| <u>Health Insurance</u> | | | | | | | | | | | | | | | | | | |
| Private | 0.40 | 1.00 | 1.11 | 0.87 | 0.45 | 0.35 | 0.17 | 1.00 | 0.50 | 0.22 | 0.21 | 0.09 | 0.17 | 1.00 | 0.95 | 0.84 | 0.18 | 0.16 |
| Public | 0.69 | 1.00 | 1.05 | 1.05 | 0.69 | 0.69 | 0.32 | 1.00 | 0.70 | 0.28 | 0.43 | 0.17 | 0.84 | 1.00 | 1.05 | 1.00 | 0.86 | 0.82 |
| None | 1.09 | 1.00 | 0.99 | 1.00 | 1.08 | 1.09 | 1.13 | 1.00 | 1.08 | 1.05 | 1.14 | 1.12 | 1.20 | 1.00 | 0.97 | 1.00 | 1.18 | 1.22 |

| TABLE A4.3 EMPLOYMENT | Bolivia | | | | | | Guatemala | | | | | | Peru | | | |
|---------------------------------|---------------------|-----------------|------------------------------|--------------------------|-----------------------------|-------------------------------|---------------------|-----------------|------------------------------|--------------------------|-----------------------------|-------------------------------|---------------------|-----------------|------------------------------|--------------------------|
| | Indig/ Non indig | Female/ Male | Non indig Female/ Male | Indig Female/ Male | Male Indig/ Non indig | Female Indig/ Non indig | Indig/ Non indig | Female/ Male | Non indig Female/ Male | Indig Female/ Male | Male Indig/ Non indig | Female Indig/ Non indig | Indig/ Non indig | Female/ Male | Non indig Female/ Male | Indig Female/ Male |
| <u>Employment Status, 25+</u> | | | | | | | | | | | | | | | | |
| Employed | 1.15 | 0.69 | 0.60 | 0.73 | 1.06 | 1.29 | 1.05 | 0.44 | 0.46 | 0.41 | 1.08 | 0.96 | 1.14 | 0.68 | 0.64 | 0.69 |
| Underemployed [1] | 0.83 | 1.06 | 1.50 | 0.84 | 1.13 | 0.63 | 0.61 | 1.68 | 1.60 | 1.89 | 0.55 | 0.65 | 1.05 | 1.00 | 1.06 | 0.98 |
| Unemployed [2] | 0.73 | 1.91 | 1.11 | 3.09 | 0.37 | 1.03 | 0.94 | 2.09 | 1.35 | 5.82 | 0.32 | 1.37 | 0.69 | 1.48 | 0.98 | 1.93 |
| No EAP | 0.71 | 4.45 | 4.18 | 4.68 | 0.65 | 0.72 | 0.96 | 7.38 | 5.83 | 12.38 | 0.49 | 1.05 | 0.76 | 3.10 | 2.77 | 3.27 |
| <u>Employment Status, 14-15</u> | | | | | | | | | | | | | | | | |
| Employed | 2.95 | 0.87 | 0.76 | 0.87 | 2.80 | 3.22 | 1.68 | 0.55 | 0.53 | 0.57 | 1.65 | 1.75 | 2.61 | 0.85 | 0.90 | 0.86 |
| Underemployed [1] | 2.27 | 0.56 | 0.48 | 0.58 | 2.19 | 2.64 | 0.68 | 0.25 | 0.29 | 0.17 | 0.75 | 0.44 | 1.45 | 0.63 | 0.92 | 0.55 |
| Unemployed [2] | 3.73 | 1.07 | 1.22 | 0.92 | 4.28 | 3.24 | 1.99 | 0.51 | 0.54 | 0.48 | 2.08 | 1.83 | 3.05 | 0.84 | 0.64 | 0.90 |
| No EAP | 0.62 | 1.03 | 1.02 | 1.13 | 0.59 | 0.65 | 0.85 | 1.20 | 1.15 | 1.30 | 0.79 | 0.90 | 0.61 | 1.14 | 1.05 | 1.20 |
| <u>Employment Status, 14-17</u> | | | | | | | | | | | | | | | | |
| Employed | 1.81 | 0.68 | 0.65 | 0.71 | 1.72 | 1.89 | 1.28 | 0.50 | 0.48 | 0.51 | 1.29 | 1.35 | 2.14 | 0.81 | 0.77 | 0.83 |
| Underemployed [1] | 0.94 | 0.91 | 0.86 | 0.98 | 0.89 | 1.00 | 1.00 | 0.37 | 0.14 | 0.91 | 0.61 | 3.94 | 1.89 | 0.57 | 0.49 | 0.61 |
| Unemployed [2] | 2.42 | 0.88 | 0.75 | 0.99 | 2.13 | 2.80 | 1.91 | 0.98 | 0.72 | 1.18 | 1.51 | 2.47 | 2.19 | 0.81 | 0.67 | 0.86 |
| No EAP | 0.63 | 1.24 | 1.18 | 1.33 | 0.60 | 0.67 | 0.74 | 2.00 | 1.84 | 2.48 | 0.59 | 0.79 | 0.61 | 1.22 | 1.13 | 1.29 |
| <u>Labour Category, 25+</u> | | | | | | | | | | | | | | | | |
| Employer | 0.82 | 0.31 | 0.28 | 0.32 | 0.82 | 0.95 | 0.59 | 0.94 | 0.89 | 1.04 | 0.56 | 0.65 | 1.32 | 0.34 | 0.33 | 0.34 |
| White Collar [3] | 0.42 | 0.72 | 0.90 | 0.57 | 0.50 | 0.31 | 0.47 | 0.72 | 0.76 | 0.52 | 0.51 | 0.35 | 0.34 | 0.92 | 1.13 | 0.73 |
| Blue Collar [4] | 0.85 | 0.50 | 0.57 | 0.47 | 0.92 | 0.76 | 1.17 | 0.72 | 0.79 | 0.64 | 1.24 | 0.99 | 0.88 | 0.50 | 0.54 | 0.49 |
| Self-emp urban [5] | 0.85 | 1.61 | 1.75 | 1.55 | 0.90 | 0.80 | 0.83 | 2.08 | 2.33 | 1.67 | 1.01 | 0.72 | 0.77 | 1.48 | 1.32 | 1.56 |
| Self-emp rural [5] | 3.07 | 1.14 | 0.81 | 1.18 | 2.62 | 3.80 | 1.91 | 1.07 | 0.93 | 1.25 | 1.72 | 2.32 | 8.89 | 1.31 | 1.64 | 1.29 |
| <u>Wage per hour [6]</u> | | | | | | | | | | | | | | | | |
| Mean, arithmetic | 0.71 | 0.86 | 0.76 | 0.97 | 0.65 | 0.83 | 0.52 | 0.80 | 0.75 | 0.86 | 0.49 | 0.56 | 0.59 | 0.79 | 0.76 | 0.76 |
| Percentile 25 | 0.87 | 0.72 | 0.77 | 0.68 | 0.86 | 0.75 | 0.69 | 0.74 | 0.78 | 0.56 | 0.72 | 0.53 | 0.81 | 0.73 | 0.84 | 0.67 |
| Percentile 50 | 0.70 | 1.08 | 1.12 | 1.00 | 0.74 | 0.66 | 0.62 | 0.88 | 0.88 | 0.86 | 0.62 | 0.60 | 0.77 | 0.87 | 0.94 | 0.80 |
| Percentile 75 | 0.69 | 1.12 | 0.97 | 1.05 | 0.67 | 0.72 | 0.52 | 0.96 | 0.84 | 0.90 | 0.50 | 0.53 | 0.77 | 0.99 | 0.95 | 0.87 |
| <u>Affiliations</u> | | | | | | | | | | | | | | | | |
| Trade Union | 1.21 | 0.46 | 0.58 | 0.41 | 1.35 | 0.96 | | | | | | | 0.74 | 0.38 | 0.40 | 0.36 |
| Pension Fund | 0.50 | 0.57 | 0.78 | 0.38 | 0.65 | 0.32 | | | | | | | 0.47 | 0.50 | 0.62 | 0.39 |

| TABLE A4.4 HOUSING QUALITY | BOLIVIA | | | | | | | | GUATEMALA | | | | | | PERU | | | | | |
|----------------------------------|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|--|--|
| | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] | | |
| Services | | | | | | | | | | | | | | | | | | | | |
| Running water | 0.71 | 1.21 | 1.14 | 1.22 | 0.71 | 0.76 | 0.85 | 1.12 | 1.08 | 1.16 | 0.84 | 0.90 | 0.69 | 1.08 | 1.03 | 1.07 | 0.69 | 0.71 | | |
| Sewerage | 0.66 | 1.40 | 1.41 | 1.33 | 0.68 | 0.64 | 0.49 | 1.42 | 1.31 | 1.64 | 0.47 | 0.59 | 0.51 | 1.19 | 1.06 | 1.19 | 0.50 | 0.56 | | |
| Electricity | 0.77 | 1.18 | 1.10 | 1.22 | 0.75 | 0.84 | 0.74 | 1.14 | 1.09 | 1.20 | 0.73 | 0.80 | 0.70 | 1.07 | 1.00 | 1.07 | 0.69 | 0.73 | | |
| Phone | 0.46 | 1.30 | 1.31 | 1.16 | 0.48 | 0.42 | 0.20 | 1.35 | 1.21 | 1.95 | 0.18 | 0.28 | 0.35 | 1.12 | 1.01 | 1.08 | 0.35 | 0.37 | | |
| Housing Characteristics | | | | | | | | | | | | | | | | | | | | |
| No dirt floor | 0.72 | 1.14 | 1.11 | 1.13 | 0.72 | 0.74 | 0.56 | 1.12 | 1.03 | 1.28 | 0.54 | 0.67 | 0.55 | 1.09 | 0.99 | 1.08 | 0.54 | 0.59 | | |
| Rooms per head | 0.88 | 1.51 | 1.64 | 1.41 | 0.93 | 0.80 | 0.64 | 1.35 | 1.23 | 1.60 | 0.61 | 0.79 | 0.80 | 1.33 | 1.25 | 1.34 | 0.80 | 0.86 | | |
| Bedrooms per head | 0.80 | 1.17 | 1.24 | 1.09 | 0.83 | 0.73 | 0.75 | 1.04 | 0.96 | 1.18 | 0.72 | 0.88 | NA | NA | NA | NA | NA | NA | | |
| Kitchen | 0.98 | 0.96 | 0.97 | 0.95 | 0.98 | 0.97 | 0.62 | 1.00 | 1.02 | 0.84 | 0.64 | 0.53 | NA | NA | NA | NA | NA | NA | | |
| Cooking with gas or t | 0.76 | 1.21 | 1.20 | 1.18 | 0.77 | 0.76 | NA | NA | NA | NA | NA | NA | 0.43 | 1.10 | 0.94 | 1.12 | 0.42 | 0.50 | | |

| TABLE A4.5 POVERTY | BOLIVIA | | | | | | | | GUATEMALA | | | | | | PERU | | | | | |
|-----------------------|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|--|--|
| | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] | | |
| Non poor | 0.59 | 1.31 | 1.23 | 1.32 | 0.58 | 0.62 | 0.49 | 1.22 | 1.13 | 1.37 | 0.47 | 0.57 | 0.64 | 1.17 | 1.07 | 1.17 | 0.63 | 0.69 | | |
| Non extreme | 1.09 | 0.96 | 0.72 | 1.11 | 1.00 | 1.54 | 1.73 | 0.84 | 0.80 | 0.93 | 1.68 | 1.95 | 1.38 | 0.92 | 0.83 | 0.97 | 1.33 | 1.55 | | |
| Extremely poor | 2.70 | 0.61 | 0.70 | 0.63 | 2.70 | 2.44 | 4.07 | 0.54 | 0.50 | 0.62 | 3.92 | 4.82 | 4.38 | 0.70 | 0.83 | 0.73 | 4.42 | 3.91 | | |

| TABLE A4.6 SOCIAL ASSISTANCE | BOLIVIA | | | | | | | | GUATEMALA | | | | | | PERU | | | | | |
|------------------------------------|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|--|--|
| | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] | | |
| Urban | NA | NA | NA | NA | NA | NA | 1.20 | 1.03 | 1.14 | 0.78 | 1.30 | 0.89 | 1.40 | 0.87 | 0.72 | 0.96 | 1.32 | 1.76 | | |
| Rural | NA | NA | NA | NA | NA | NA | 1.14 | 1.03 | 0.84 | 1.09 | 1.10 | 1.43 | 1.09 | 0.86 | 0.71 | 0.87 | 1.05 | 1.29 | | |
| Urban | NA | NA | NA | NA | NA | NA | 0.76 | 1.02 | 1.00 | 0.96 | 0.76 | 0.73 | NA | NA | NA | NA | NA | NA | | |
| Rural | NA | NA | NA | NA | NA | NA | 0.80 | 1.08 | 1.33 | 0.87 | 0.85 | 0.55 | NA | NA | NA | NA | NA | NA | | |

| TABLE A4.7 POLITICAL CITIZENSHIP | BOLIVIA | | | | | | | | GUATEMALA | | | | | | PERU | | | | | |
|--|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|-------------------------|---------------------|----------------------------------|------------------------------|---------------------------------|-----------------------------------|--|--|
| | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] | Indig/ Non indig [1] | Female/ Male [2] | Non Indig Female/ Male [3] | Indig Female/ Male [4] | Male Indig/ Non indig [5] | Female Indig/ Non indig [6] | | |
| ID Card | 0.97 | 0.95 | 0.99 | 0.92 | 1.00 | 0.94 | 0.87 | 0.77 | 0.84 | 0.65 | 0.98 | 0.76 | 0.96 | 0.98 | 1.00 | 0.97 | 0.98 | 0.94 | | |
| Voted | | | | | | | 0.88 | 0.62 | 0.72 | 0.47 | 1.04 | 0.68 | 0.97 | 0.99 | 1.03 | 0.97 | 1.00 | 0.94 | | |

[1] Indigenous to non-indigenous ratio [2] Female to male ratio [3] Female to male ratio, for the non-indigenous population only [4] Female to male ratio, for the indigenous population only [5] Indigenous to non-indigenous ratio, for males [6] Indigenous to non-indigenous ratio, for females.

Appendix B – Nearest Neighbour Matching

This study uses the nearest neighbour matching technique as proposed by Abadie *et al.* (2004). This methodology is based on matching each observation of the treatment group to the observation in the control group with the closest propensity score. By selecting only one match, the methodology has only a small bias but may potentially increase the standard error of the estimator effect. Tables B1 to B4 show the mean and standard deviation of the variables for each group. After matching, the means and standard deviations of the explanatory variables are much closer between treatment and control groups.

The t-statistics are misleading in this case because a higher t-statistic may be simply reflecting a large sample size. The comparison statistic of choice is the standardised difference of the means – SDM (the difference between two means divided by the standard deviation of the control group). An SDM of under 0.25 is low enough for the common support. After matching, all the explanatory variables in Bolivia and Guatemala report SDMs of under 0.25.

However, in the case of Peru, 2 comparisons report differences higher than 0.25. The variables are the years of schooling and share in urban areas (for indigenous males as treatment group). To address the problem of high SDM, the sample was trimmed by removing those observations reporting a difference of more than 0.05 points in the propensity score when compared to their matches. In a second stage, the nearest neighbour matching procedure was repeated for this subsample. This is not the same as limiting the distance to 0.05, because in the trimming process some control observations with a distance of more than 0.05 to one treated observation that at the same time are less than 0.05 points away from a second treated observation will be dropped, thus the second treated variable will need to be re-matched, and the replacement may be farther than 0.05 points away.

Several checks were performed to ensure the robustness of these results. In first place, 1, 3, and 5 observations were used to control for heteroskedasticity. For practical purposes the results are unchanged, but the models with 5 neighbours were selected for arguably being the most robust. In second place, the explanatory variables were eliminated one at a time. The only variable whose removal causes important changes in the results is years of schooling, which would be expected. In third place, we add noise to the model by including a simulated random variable with a mean value of 8 and a standard deviation of 2 (similar in order of magnitude to the distribution of years of schooling). Lastly, we force the matching on urban/rural dummy to be exact. This way, the matching does not compare urban to rural workers, as suggested by Ñopo (2004). The results hold under the various specifications.

Appendix B1. Bolivia pre- and post-matching descriptive statistics

| | Before Matching | | | | | | | After Matching | | | | | | |
|--|-----------------|---------|-----------|-----------|---------|-----------|---------|----------------|---------|-----------|-----------|---------|-----------|---------|
| | Control | | | Treatment | | | Diff/SD | Control | | | Treatment | | | Diff/SD |
| | Obs | Mean | Std. Dev. | Obs | Mean | Std. Dev. | | Obs | Mean | Std. Dev. | Obs | Mean | Std. Dev. | |
| <u>Treatment: Non-indigenous females</u> | | | | | | | | | | | | | | |
| wage | 1125 | 304.53 | 425.89 | 589 | 224.41 | 259.77 | -0.31 | 419 | 328.64 | 472.75 | 589 | 224.41 | 259.77 | -0.22 |
| yrssch | 1125 | 9.77 | 4.62 | 589 | 10.82 | 4.83 | 0.22 | 419 | 10.56 | 4.65 | 589 | 10.82 | 4.83 | 0.06 |
| age | 1125 | 32.76 | 12.84 | 589 | 31.95 | 11.79 | -0.07 | 419 | 32.13 | 11.98 | 589 | 31.95 | 11.79 | -0.02 |
| age2 | 1125 | 1237.96 | 971.25 | 589 | 1159.73 | 845.56 | -0.09 | 419 | 1175.71 | 857.20 | 589 | 1159.73 | 845.56 | -0.02 |
| hrspwk | 1125 | 50.57 | 22.23 | 589 | 45.12 | 21.94 | -0.25 | 419 | 47.90 | 20.10 | 589 | 45.12 | 21.94 | -0.14 |
| hrspwk2 | 1125 | 3051.37 | 3079.05 | 589 | 2516.13 | 2630.86 | -0.20 | 419 | 2697.38 | 2422.09 | 589 | 2516.13 | 2630.86 | -0.07 |
| urban | 1125 | 0.77 | 0.42 | 589 | 0.88 | 0.32 | 0.34 | 419 | 0.88 | 0.33 | 589 | 0.88 | 0.32 | 0.02 |
| <u>Treatment: Indigenous Males</u> | | | | | | | | | | | | | | |
| wage | 1125 | 304.53 | 425.89 | 1125 | 241.68 | 383.08 | -0.16 | 1125 | 241.68 | 383.08 | 672 | 295.75 | 389.75 | 0.14 |
| yrssch | 1125 | 9.77 | 4.62 | 1125 | 9.14 | 4.74 | -0.13 | 1125 | 9.14 | 4.74 | 672 | 9.68 | 4.56 | 0.11 |
| age | 1125 | 32.76 | 12.84 | 1125 | 35.08 | 12.50 | 0.19 | 1125 | 35.08 | 12.50 | 672 | 33.60 | 12.46 | -0.12 |
| age2 | 1125 | 1237.96 | 971.25 | 1125 | 1386.75 | 990.15 | 0.15 | 1125 | 1386.75 | 990.15 | 672 | 1283.83 | 963.57 | -0.10 |
| hrspwk | 1125 | 50.57 | 22.23 | 1125 | 51.87 | 21.55 | 0.06 | 1125 | 51.87 | 21.55 | 672 | 51.18 | 20.93 | -0.03 |
| hrspwk2 | 1125 | 3051.37 | 3079.05 | 1125 | 3154.78 | 2774.36 | 0.04 | 1125 | 3154.78 | 2774.36 | 672 | 3056.38 | 2752.65 | -0.04 |
| urban | 1125 | 0.77 | 0.42 | 1125 | 0.74 | 0.44 | -0.08 | 1125 | 0.74 | 0.44 | 672 | 0.76 | 0.43 | 0.05 |
| <u>Treatment: Indigenous Females</u> | | | | | | | | | | | | | | |
| wage | 1125 | 304.53 | 425.89 | 557 | 156.04 | 181.91 | -0.82 | 557 | 156.04 | 181.91 | 410 | 290.74 | 379.04 | 0.74 |
| yrssch | 1125 | 9.77 | 4.62 | 557 | 9.12 | 5.71 | -0.11 | 557 | 9.12 | 5.71 | 410 | 9.76 | 5.03 | 0.11 |
| age | 1125 | 32.76 | 12.84 | 557 | 32.10 | 12.17 | -0.05 | 557 | 32.10 | 12.17 | 410 | 31.89 | 12.35 | -0.02 |
| age2 | 1125 | 1237.96 | 971.25 | 557 | 1177.92 | 901.93 | -0.07 | 557 | 1177.92 | 901.93 | 410 | 1169.38 | 935.35 | -0.01 |
| hrspwk | 1125 | 50.57 | 22.23 | 557 | 45.56 | 22.52 | -0.22 | 557 | 45.56 | 22.52 | 410 | 48.00 | 20.97 | 0.11 |
| hrspwk2 | 1125 | 3051.37 | 3079.05 | 557 | 2582.13 | 2563.97 | -0.18 | 557 | 2582.13 | 2563.97 | 410 | 2742.95 | 2527.45 | 0.06 |
| urban | 1125 | 0.77 | 0.42 | 557 | 0.80 | 0.40 | 0.07 | 557 | 0.80 | 0.40 | 410 | 0.80 | 0.40 | -0.01 |

Appendix B2. Guatemala pre- and post-matching descriptive statistics

| | Before Matching | | | | | | | After Matching | | | | | | |
|--|-----------------|---------|-----------|-----------|---------|-----------|---------|----------------|---------|-----------|-----------|---------|-----------|---------|
| | Control | | | Treatment | | | Diff/SD | Control | | | Treatment | | | Diff/SD |
| | Obs | Mean | Std. Dev. | Obs | Mean | Std. Dev. | | Obs | Mean | Std. Dev. | Obs | Mean | Std. Dev. | |
| <u>Treatment: Non-indigenous Females</u> | | | | | | | | | | | | | | |
| wage | 3132 | 1434.00 | 1888.77 | 1518 | 1181.92 | 1460.79 | -0.17 | 1095 | 1520.84 | 2035.19 | 1518 | 1181.92 | 1460.79 | -0.17 |
| yrssch | 3132 | 6.29 | 4.84 | 1518 | 7.84 | 5.19 | 0.30 | 1095 | 7.22 | 5.01 | 1518 | 7.84 | 5.19 | 0.12 |
| age | 3132 | 31.91 | 13.88 | 1518 | 30.71 | 12.15 | -0.10 | 1095 | 30.53 | 12.65 | 1518 | 30.71 | 12.15 | 0.01 |
| age2 | 3132 | 1210.75 | 1078.77 | 1518 | 1090.79 | 881.62 | -0.14 | 1095 | 1091.88 | 934.89 | 1518 | 1090.79 | 881.62 | 0.00 |
| hrspwk | 3132 | 55.61 | 30.64 | 1518 | 46.98 | 20.32 | -0.42 | 1095 | 50.34 | 17.80 | 1518 | 46.98 | 20.32 | -0.19 |
| hrspwk2 | 3132 | 4030.79 | 25257.77 | 1518 | 2620.33 | 2169.23 | -0.65 | 1095 | 2850.83 | 1984.63 | 1518 | 2620.33 | 2169.23 | -0.12 |
| urban | 3132 | 0.55 | 0.50 | 1518 | 0.75 | 0.44 | 0.45 | 1095 | 0.69 | 0.46 | 1518 | 0.75 | 0.44 | 0.12 |
| <u>Treatment: Indigenous Males</u> | | | | | | | | | | | | | | |
| wage | 3132 | 1434.00 | 1888.77 | 1789 | 793.34 | 967.34 | -0.66 | 1789 | 793.34 | 967.34 | 1345 | 1104.02 | 1256.79 | 0.32 |
| yrssch | 3132 | 6.29 | 4.84 | 1789 | 3.98 | 4.17 | -0.55 | 1789 | 3.98 | 4.17 | 1345 | 4.72 | 4.25 | 0.18 |
| age | 3132 | 31.91 | 13.88 | 1789 | 31.18 | 14.30 | -0.05 | 1789 | 31.18 | 14.30 | 1345 | 30.46 | 13.69 | -0.05 |
| age2 | 3132 | 1210.75 | 1078.77 | 1789 | 1176.47 | 1081.92 | -0.03 | 1789 | 1176.47 | 1081.92 | 1345 | 1115.26 | 1032.63 | -0.06 |
| hrspwk | 3132 | 55.61 | 30.64 | 1789 | 54.87 | 42.48 | -0.02 | 1789 | 54.87 | 42.48 | 1345 | 55.25 | 40.15 | 0.01 |
| hrspwk2 | 3132 | 4030.79 | 25257.77 | 1789 | 4813.73 | 40774.29 | 0.02 | 1789 | 4813.73 | 40774.29 | 1345 | 4663.22 | 38405.00 | 0.00 |
| urban | 3132 | 0.55 | 0.50 | 1789 | 0.38 | 0.49 | -0.34 | 1789 | 0.38 | 0.49 | 1345 | 0.42 | 0.49 | 0.08 |
| <u>Treatment: Indigenous Females</u> | | | | | | | | | | | | | | |
| wage | 3132 | 1434.00 | 1888.77 | 680 | 492.08 | 880.81 | -1.07 | 680 | 492.08 | 880.81 | 548 | 917.78 | 856.22 | 0.48 |
| yrssch | 3132 | 6.29 | 4.84 | 680 | 3.19 | 4.22 | -0.73 | 680 | 3.19 | 4.22 | 548 | 3.90 | 4.40 | 0.17 |
| age | 3132 | 31.91 | 13.88 | 680 | 28.84 | 14.33 | -0.21 | 680 | 28.84 | 14.33 | 548 | 28.82 | 14.04 | 0.00 |
| age2 | 3132 | 1210.75 | 1078.77 | 680 | 1036.71 | 1044.70 | -0.17 | 680 | 1036.71 | 1044.70 | 548 | 1027.05 | 1042.51 | -0.01 |
| hrspwk | 3132 | 55.61 | 30.64 | 680 | 44.13 | 22.98 | -0.50 | 680 | 44.13 | 22.98 | 548 | 47.35 | 19.44 | 0.14 |
| hrspwk2 | 3132 | 4030.79 | 25257.77 | 680 | 2474.54 | 2396.05 | -0.65 | 680 | 2474.54 | 2396.05 | 548 | 2619.62 | 2034.87 | 0.06 |
| urban | 3132 | 0.55 | 0.50 | 680 | 0.48 | 0.50 | -0.14 | 680 | 0.48 | 0.50 | 548 | 0.50 | 0.50 | 0.03 |

Appendix B3. Peru – pre- and post-matching descriptive statistics

| | Before Matching | | | | | | | After Matching | | | | | | |
|--|-----------------|---------|-----------|-----------|---------|-----------|---------|----------------|---------|-----------|-----------|---------|-----------|---------|
| | Control | | | Treatment | | | Diff/SD | Control | | | Treatment | | | Diff/SD |
| | Obs | Mean | Std. Dev. | Obs | Mean | Std. Dev. | | Obs | Mean | Std. Dev. | Obs | Mean | Std. Dev. | |
| <u>Treatment: Non-indigenous Females</u> | | | | | | | | | | | | | | |
| wage | 2684 | 859.80 | 1202.92 | 1760 | 664.23 | 1296.51 | -0.15 | 1252 | 831.85 | 1161.22 | 1760 | 664.23 | 1296.51 | -0.14 |
| yrssch | 2684 | 11.83 | 3.27 | 1760 | 12.66 | 3.43 | 0.24 | 1252 | 12.27 | 3.15 | 1760 | 12.66 | 3.43 | 0.13 |
| age | 2684 | 33.96 | 12.03 | 1760 | 32.43 | 10.36 | -0.15 | 1252 | 32.03 | 10.47 | 1760 | 32.43 | 10.36 | 0.04 |
| age2 | 2684 | 1297.72 | 938.92 | 1760 | 1158.88 | 757.64 | -0.18 | 1252 | 1135.62 | 768.50 | 1760 | 1158.88 | 757.64 | 0.03 |
| hrspwk | 2684 | 49.33 | 19.95 | 1760 | 43.50 | 19.30 | -0.30 | 1252 | 46.73 | 18.57 | 1760 | 43.50 | 19.30 | -0.17 |
| hrspwk2 | 2684 | 2831.76 | 2024.85 | 1760 | 2264.39 | 1796.37 | -0.32 | 1252 | 2528.65 | 1782.35 | 1760 | 2264.39 | 1796.37 | -0.15 |
| urban | 2684 | 0.94 | 0.24 | 1760 | 0.96 | 0.20 | 0.10 | 1252 | 0.96 | 0.19 | 1760 | 0.96 | 0.20 | -0.01 |
| <u>Treatment: Indigenous Males</u> | | | | | | | | | | | | | | |
| wage | 2684 | 859.80 | 1202.92 | 5177 | 584.43 | 662.37 | -0.42 | 5177 | 584.43 | 662.37 | 1997 | 825.51 | 1183.84 | 0.36 |
| yrssch | 2684 | 11.83 | 3.27 | 5177 | 10.26 | 3.94 | -0.40 | 5177 | 10.26 | 3.94 | 1997 | 11.54 | 3.30 | 0.32 |
| age | 2684 | 33.96 | 12.03 | 5177 | 35.39 | 12.92 | 0.11 | 5177 | 35.39 | 12.92 | 1997 | 33.95 | 11.97 | -0.11 |
| age2 | 2684 | 1297.72 | 938.92 | 5177 | 1419.14 | 1023.08 | 0.12 | 5177 | 1419.14 | 1023.08 | 1997 | 1295.85 | 929.99 | -0.12 |
| hrspwk | 2684 | 49.33 | 19.95 | 5177 | 48.24 | 19.67 | -0.06 | 5177 | 48.24 | 19.67 | 1997 | 49.51 | 19.73 | 0.06 |
| hrspwk2 | 2684 | 2831.76 | 2024.85 | 5177 | 2713.57 | 2002.17 | -0.06 | 5177 | 2713.57 | 2002.17 | 1997 | 2840.49 | 2026.09 | 0.06 |
| urban | 2684 | 0.94 | 0.24 | 5177 | 0.72 | 0.45 | -0.48 | 5177 | 0.72 | 0.45 | 1997 | 0.92 | 0.27 | 0.44 |
| <u>Treatment: Indigenous Females</u> | | | | | | | | | | | | | | |
| wage | 2684 | 859.80 | 1202.92 | 2366 | 422.59 | 415.33 | -1.05 | 2366 | 422.60 | 415.33 | 1406 | 753.05 | 1091.39 | 0.80 |
| yrssch | 2684 | 11.83 | 3.27 | 2366 | 10.87 | 4.60 | -0.21 | 2366 | 10.87 | 4.60 | 1406 | 11.55 | 3.41 | 0.15 |
| age | 2684 | 33.96 | 12.03 | 2366 | 33.25 | 11.82 | -0.06 | 2366 | 33.25 | 11.82 | 1406 | 32.42 | 11.24 | -0.07 |
| age2 | 2684 | 1297.72 | 938.92 | 2366 | 1244.97 | 899.22 | -0.06 | 2366 | 1244.97 | 899.22 | 1406 | 1177.53 | 838.22 | -0.07 |
| hrspwk | 2684 | 49.33 | 19.95 | 2366 | 42.71 | 20.20 | -0.33 | 2366 | 42.71 | 20.20 | 1406 | 46.60 | 19.18 | 0.19 |
| hrspwk2 | 2684 | 2831.76 | 2024.85 | 2366 | 2232.22 | 1924.47 | -0.31 | 2366 | 2232.22 | 1924.47 | 1406 | 2538.88 | 1882.77 | 0.16 |
| urban | 2684 | 0.94 | 0.24 | 2366 | 0.81 | 0.39 | -0.32 | 2366 | 0.81 | 0.39 | 1406 | 0.91 | 0.28 | 0.25 |

Appendix B4. Peru – pre- and post-matching descriptive statistics for indigenous males' trimmed sample

| | Before Matching | | | | | | | After Matching | | | | | | |
|---------|-----------------|---------|-----------|-----------|---------|-----------|---------|----------------|---------|-----------|-----------|---------|-----------|---------|
| | Control | | | Treatment | | | Diff/SD | Control | | | Treatment | | | Diff/SD |
| | Obs | Mean | Std. Dev. | Obs | Mean | Std. Dev. | | Obs | Mean | Std. Dev. | Obs | Mean | Std. Dev. | |
| wage | 2684 | 859.80 | 1202.92 | 5177 | 584.43 | 662.37 | -0.42 | 1660 | 817.61 | 1172.48 | 2918 | 622.92 | 609.52 | -0.17 |
| yrssch | 2684 | 11.83 | 3.27 | 5177 | 10.26 | 3.94 | -0.40 | 1660 | 11.87 | 2.87 | 2918 | 11.60 | 2.82 | -0.10 |
| age | 2684 | 33.96 | 12.03 | 5177 | 35.39 | 12.92 | 0.11 | 1660 | 32.25 | 10.67 | 2918 | 32.36 | 10.96 | 0.01 |
| age2 | 2684 | 1297.72 | 938.92 | 5177 | 1419.14 | 1023.08 | 0.12 | 1660 | 1153.74 | 771.03 | 2918 | 1167.18 | 786.54 | 0.02 |
| hrspwk | 2684 | 49.33 | 19.95 | 5177 | 48.24 | 19.67 | -0.06 | 1660 | 48.85 | 18.03 | 2918 | 48.48 | 17.83 | -0.02 |
| hrspwk2 | 2684 | 2831.76 | 2024.85 | 5177 | 2713.57 | 2002.17 | -0.06 | 1660 | 2711.06 | 1798.16 | 2918 | 2668.29 | 1775.77 | -0.02 |
| urban | 2684 | 0.94 | 0.24 | 5177 | 0.72 | 0.45 | -0.48 | 1660 | 0.95 | 0.22 | 2918 | 0.91 | 0.28 | -0.16 |