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Race, Ethnicity and Living Conditions in Costa Rica

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Abstract

Using information from the 2011 census, we analyze the differential in living standards by race, ethnicity, and country of origin in Costa Rica. We identify the main factors explaining such inequalities along the distribution of a composite index of wellbeing, with counterfactual analysis based on Blinder-Oaxaca type of decomposition. Our results show that mulattoes, indigenous people and immigrants from Nicaragua and Panama are generally worse-off as compared with the majority of the population, although the reasons differ. While lower education and low-paid occupations largely explain the differential in all cases, location is particularly important for indigenous people and immigrants from Panama, that live in the least developed areas of the country. We also investigate the distributive pattern of these inequalities and the remarkably distinctive situation of Costa Rican blacks.

Keywords: Costa Rica, wellbeing, poverty, ethnicity, Afro-descendants, immigration, decomposition.

JEL Classification: D63, I31, I32, J15.

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1. Introduction

Costa Rica is a small, middle-income country traditionally outstanding for having economic and political stability and social cohesion well above the usual levels in the Central American and Caribbean region.¹ Due to its particular history, the national identity of this country was constructed based on the myth of an egalitarian, pacific and white nation (e.g. Putnam, 1999) in a predominantly non-white area dominated by high inequality and instability. The population in Costa Rica is, however, diverse and presents important inequalities along racial and ethnic lines. This was highlighted by the recent release of the 2011 Census that gave greater visibility to ethnic minorities in the country.

Complying with the requests from local ethnic organizations and following most recent international recommendations, the national statistical office has included for the first time a question addressed to all Costa Ricans about their ethnic and racial self-identification. As a result, more than 11% of a population of 4.3 million ascribed themselves to any of the racial/ethnic minorities of the country. The largest minority, 334,437 (7.8%) Costa Ricans, is the population of (possible) African ancestry, a result of colonization and immigration flows. More specifically, 45,228 (1.1%) Costa Ricans considered themselves as blacks or African descents, and 289,209 (6.7%) as mulattoes. However these two groups probably sharing a common African ancestry², they differ in history and socioeconomic background, and for that reason they will be mostly analyzed separately. The second largest minority in the country (104,143; 2.4%) is made up of the different indigenous peoples that historically inhabited the region (including neighbor countries) before the arrival of Europeans. There is also a small and affluent Chinese minority (9,170; 0.2%), and another 36,334 (0.8%) Costa Ricans are included in the “other race/ethnicity” category. The majority of the population (84%) ascribed themselves to the mixed white/mestizo category, while only the remaining 5% refused to identify with any of these categories. Another dimension of the ethnic diversity is the nationality, because there was a significant flow of immigration into the country of disadvantaged groups of people born in Nicaragua (287,766; 6.7%) and Panama (11,250; 0.3%). This immigration flow involved people of any race/ethnicity but with significant numbers of mulattoes, blacks and indigenous people. Other more affluent groups come from the US and Colombia (about 16.000 of each nationality) among other countries.

When it comes to the living conditions of these population groups, Costa Rica presents some common features with other countries in the area and some distinctive ones. Mulattoes and indigenous people, as well as immigrants from Nicaragua and Panama have traits that do not differ much from the traditional social disadvantage of these minorities found elsewhere in Latin

¹ Several studies have analyzed the recent trends in income distribution in Latin America and Caribe (e.g. ECLAC, 2012; Gindling and Trejos, 2013; Medina and Galván, 2008). For example, Medina and Galván (2008) ranked Costa Rica having the second lowest Gini inequality among 17 Latin American and Caribbean countries circa 2005 (only above Uruguay), with three Central American and Caribbean countries at the top (Honduras, Nicaragua and Dominican Republic). Gindling and Trejos (2013) using various inequality indices, noted that around 1990, Costa Rica had inequality well below that of Guatemala, Honduras, Nicaragua and El Salvador. However, the opposite trends followed by these countries ever since, with increasing inequality in Costa Rica and Honduras and decreasing in the other countries, but especially in El Salvador, have substantially reduced the gap, and around 2010 the latter was the country with the lowest inequality among this group (followed by Costa Rica). Long-term trends in poverty and inequality in Costa Rica are explained in Trejos (2012).

² Determining who actually classify themselves as mulatto would need further investigation, as it is possible that this category just reflects darker skin that could have a different origin (e.g. indigenous).

America and Caribe: They are over-represented at low income and wellbeing levels, and present poorer socioeconomic endowments (lower achieved education, higher unemployment, precarious low-paid jobs, etc.).³ However, regarding its black minority, Costa Rica is an outstanding case that deserves further investigation. The particular history of West Indians (mostly Jamaicans) who settled in the Caribbean coast of Costa Rica between the end of the 19th Century and the beginning of the 20th, makes them an interesting case of study. They made up a differentiated racial (black), ethnic (British Antillean) group that had to struggle with serious discrimination in a predominantly catholic, white/mestizo, and Hispanic country, and despite that were able to achieve better education and jobs than other population groups.

The aim of this paper is, thus, to investigate the extent and the nature of inequalities in wellbeing across racial and ethnic lines in Costa Rica. Wellbeing is proxied here by a synthetic index constructed using Multiple Correspondence Analysis with the information about living conditions from the 2011 Census. In order to identify the main factors explaining such racial and ethnic inequalities, we use regression-based counterfactual analysis. By comparing the actual difference with that that remains when the minority is given the characteristics of the majority, we estimate the characteristics and coefficients effects of the gap in wellbeing between population groups. The characteristics effect provides an idea of how much of the differential in wellbeing is explained by one group having better attributes (such as education, labor attachment, location and so on) than the other. The coefficients effect quantifies to what extent these factors are associated with a differential impact on wellbeing in each group (one group takes more advantage of or is less harmed with some attributes). A detailed decomposition provides a quantification of the contribution of specific attributes to each of these effects. This analysis is undertaken at the mean of wellbeing (Blinder, 1973; Oaxaca, 1973) and at different quantiles along its distribution (Firpo, Fortin and Lemieux, 2007 and 2009).

The remaining of the paper is as follows. The next section describes the data used and section 3 provides a glimpse on the different population groups in Costa Rica. The methodology is presented in section 4, while the empirical results are discussed in section 5. Finally, the last section closes summarizing the main conclusions.

2. Data

The database used in this study is a public use sample extracted from the 2011 decennial Census (*X Censo Nacional de Población y Vivienda*) undertaken by the *Instituto Nacional de Estadísticas y Censos* (INEC) that accounts for about 10% of its population living in private households (427,972 observations). The advantage with respect to other data sources is the detailed information about race and ethnicity, not available elsewhere, as well as its larger sample size.

The decision to include (and how) the racial/ethnic dimension in statistics is a quite controversial issue in most Latin American countries. Admitting a diversity of ethnicities and cultures still generates strong resistance in societies whose national identities were typically constructed on the basis of being composed by homogenous populations (mestizo in most cases; whites in the case of Costa Rica as in some South American countries). Even when some diversity is accepted, the idea of racial democracy in which the racial/ethnic dimension of social inequalities is denied is also quite common in the region, and Costa Rica is a prominent example due to its higher

³ The disadvantaged situation of Afro-descendants and indigenous peoples in Latin America has been recently documented, among others, by Hall and Patrinos (2006), Bello and Paixão (2009), IACHR (2011), or Ñopo (2012).

equality levels. This has generally led to the invisibility of ethnic minorities, mostly Afro-descendants and indigenous, in modern statistics all over the region (with the outstanding exception of Brazil) although the situation is changing rapidly due to increasing concern about making minorities visible as a first step to recognize the diversity and overcome their discrimination.⁴ In this line, Costa Rican minorities were not visualized in statistics until very recently. Like in other countries, earliest censuses (between 1864 and 1950) in Costa Rica classified the population on the basis of their race. After having been omitted in 1963, 1973 and 1984 censuses, race/ethnicity was first re-introduced in the 2000 Census that included a question about self-identification with ethnic minorities (culture): black/African descents; Chinese; Indigenous people; none. But there was no explicit category either for whites or for people of mixed race (such as mestizos or mulattoes). Some specific questions addressed to indigenous people were restricted to indigenous territories. The interest was to identify minorities rather than allowing any Costa Rican to self-identify and, as a result, the proportion of ethnic minorities (3.8%) was underestimated with respect to that in 2011 (11.2%) when the question was extended to embrace the race/ethnicity of all Costa Ricans.⁵

Several international organizations, particularly the Economic Commission for Latin America and the Caribbean (ECLAC), strongly recommended all Latin American countries undertaking the 2010 round of national censuses to include self-identification of all the population according to their ethnicity (that was generally preferred over race).⁶ Costa Rica complied with these recommendations in the 2011 Census. National ethnic organizations have long claimed for this, and INEC agreed with them the main questions to be included. The Census first asked each individual about the indigenous condition and, if the answer was positive, about the specific people (*pueblo*) and whether or not any indigenous language was spoken. For non-indigenous people, there was a question about race/ethnicity asking whether the respondents considered themselves as i) black or Afro descendent, ii) mulatto, iii) Chinese, iv) white or mestizo, v) other, vi) none.⁷ This implied a weird treatment of mixed race people: blacks and mulattoes are collected on separate categories, while whites and mestizos are included in the same category. It also neglects the linguistic dimension in the case of Caribbean blacks (who might speak creole English). There were some criticisms from ethnic groups regarding the implementation of the census on the field, especially referred to the lack of enough training of interviewers and advertisement addressed to make citizens aware of the ethnic/racial self-identification (see, for example, Campbell, 2012). But there is, however, a great consensus that this round implied a big improvement with respect to the way the ethnic/racial information was collected before. The census questionnaire also asks about the country of birth that allows us to identify first-generation immigrants from different countries, of which we single out two disadvantaged groups of immigrants from Nicaragua and Panama.

⁴ See, for example, Antón and Del Popolo (2009), Lennox and Minott (2011), or Cruces et al. (2012) for a throughout discussion of the visibility of Afro-descendants in Latin American statistics and its recent debate.

⁵ Additionally, the Household Survey of Multiple Purposes (*Encuesta de Hogares de Propósitos Múltiples*) in 2002 included a racial question asking whether any member of the household was indigenous, black, mulatto, Chinese, or other. About 1.3% was indigenous, 1.1% black, 4.1% mulatto, and 0.2% Chinese (the remaining 93% was included in the “other” category).

⁶ In this line, ECLAC (2009) reports the discussions and recommendations on the matter of a seminar held with more than 100 experts before the 2010 census round.

⁷ The process that led to the inclusion of the racial/ethnic identification in the 2011 Census in Costa Rica is discussed in detail in López (2013).

There is a common practice, especially in Brazil, of pooling blacks (*preto*) and people of mixed race with presumable African ancestry (*pardo*) in a wider category of Afro-descendants because the lines between both groups are unclear and the choice might be influenced by the degree of ethnic self-esteem, the environment, and individual characteristics (e.g. Telles, 2002). This is consistent with the claim for higher statistical visibility pursued by the emerging black movement in Latin America. However, Costa Rica is a particular case because blacks and mulattoes strongly differ in their characteristics and have significant ethnic identities as will be discussed below, reasons for which we will undertake a separate analysis of both groups in most of the empirical analysis.

In order to measure living conditions, the census does not collect information about any source of income, but it does have detailed information regarding basic characteristics of the dwelling, including equipment and available utilities, as well as health care insurance. This information will be used to construct a composite index of material wellbeing using Multiple Correspondence Analysis (MCA). The census also provides information on an array of individual characteristics such as location, mobility, education, labor market attachment, occupation, etc., that will be used to explain the differential in wellbeing among ethnic/racial groups.

3. Race and ethnicity in Costa Rica

In this section, we briefly describe Costa Rican main ethnic minorities in order to better contextualize the results presented below. The main three groups are Europeans, Afro-descendants⁸ and indigenous peoples but, like in the rest of Latin America, miscegenation created a large population of mixed race, such as mestizos and mulattoes, of which only the latter group is singled out in the census.

The oldest settlers in Costa Rica are eight indigenous populations (*pueblos*): Bribri, Brunca/Boruca, Cabécar, Chorotega, Huetar, Maleku/Guatuso, Ngöbe/Guaymí, and Teribe/Térraba. Their traditional territories or reservations are protected under the 1977 Indigenous Act and counts with the supervision of a public organization, the National Commission of Indian Affairs (*Comisión Nacional de Asuntos Indígenas*, CONAI). Costa Rica has also ratified the 1992 ILO Convention No. 169 on indigenous rights, but still “continues to be one of the countries with the lowest level of constitutional recognition of indigenous rights in the region” (IWGIA, 2013a). These legal instruments have not being much effective in protecting their cultural, political and socioeconomic rights, and people of indigenous ancestry are left behind all the other groups. The largest concentration of indigenous people is found near the Panamanian border, with the highest numbers in the cantons of Talamanca (14%) and Buenos Aires (13%). About one third (34%) of the indigenous population lives across the 24 officially recognized indigenous territories, although another significant group lives in nearby areas. For example, about 25% of them live in the same cantons but outside the reservations. These are more likely to preserve their native language and cultural traits, and live in more severe conditions. There is an increasing degree of alienation among the indigenous population. About one quarter of the population claiming indigenous ethnicity do not identify with any *pueblo*, this proportion is insignificant in the reservations, it is about 18% in the nearby, but raises up to 50%

⁸ Note that the use of the term Afro-descendant (*afrodescendiente* in Spanish) seems to be gaining adepts in Latin America to refer to those people of African descent given that it emphasizes the ethnic dimension, as opposed to race (such as black). This was especially true after the UN World Conference against Racism held in Durban, 2001. However, many Afro-descendants are better ascribed to color categories such as black or mulatto, therefore the need to use mixed categories of ethnicity and race.

in the rest of the country. It is possible that this growing alienation results in an underestimation of the actual indigenous population, if some people of this ancestry declines to claim this ethnicity and are included as mestizos or even mulattoes, for example. There is also an increasing non-indigenous population settling in traditional indigenous territories (26% of their population in 2011), a source of great conflict (e.g. IAWAG, 2013b). Not all indigenous people were born in Costa Rica. One out of six indigenous people was born abroad, mainly in Nicaragua (especially Miskito, not identified as such in the Census) and Panama (mainly from the binational group of Ngöbe).⁹

Costa Rica was a Spanish colony between the early 1500s until the Central American federation of nations became independent at the beginning of 1800s. Therefore, the first European settlers were Spanish. However, it was a poor peripheral colony and, thus, still scarcely populated by Europeans when the republic was born. Later immigration of Europeans, and of mestizos from neighbor countries helped to make up the main ethnic group of the country. European immigration was promoted after the independence in the context of whitening policies that became popular also in other countries in the region. At the same time, immigration of Chinese and Africans, among other non-white groups, was banned in 1862. In the context of the convulsive 1980s, immigrants and refugees from other Central American countries and Colombia started to arrive to the country, with Nicaraguans making up the largest group.

Most Afro-Costa Ricans arrived in two different waves.¹⁰ A first group of people of African descent came as slaves during the Spanish colony, settling especially in different plantations in Matina (Caribbean coast), Nicoya (Pacific coast), as well as in the central valley villages (such as in Cartago). Due to the lack of large plantations, Costa Rica was never an outstanding slave economy like Cuba or Brazil and, then, the number of slaves was relatively small. Slavery was abolished in 1824. There was an intense miscegenation and this population was eventually assimilated into the predominant culture (e.g. Murillo, 1999). As a consequence, their descendants very often do not accept their African ancestry, and it is reasonable to expect these people be mostly included as mulatto in the current racial/ethnic classification.¹¹

A second wave of Afro-descendants came from the Caribbean region thanks to an exception to the bans imposed to non-white immigration. The most important inflow started to arrive to Costa Rica in 1872 for the construction of the railway connecting San José, in the central valley, with Limón harbor at the Caribbean coast, in order to open a new way out for coffee exports. People came from several Caribbean countries until the 1920s, especially from Jamaica, to work not only in the railway company but also in the harbor and in banana and cocoa plantations. The whole economic activity of the region was ruled by the US-based United Fruit Corporation (UFCO). This immigration created a solid distinct Antillean ethnic group, protestant and Anglophone in a predominantly Hispanic and Catholic country. This included their own churches, schools, or fraternity associations. Immigrants during the first decades did not make much effort to integrate in the host society, expecting to return soon to their countries of origin, generating constant population inflows between Costa Rica and neighbor countries. At the time, most Costa Ricans showed strong racial prejudices towards them and saw them as foreigners that often

⁹ A detailed description of the socioeconomic characteristics of the indigenous population in Costa Rica can be found in Solano (2004) and PNUD (2012) based on 2000 Census, and Fuentes (2013) based on 2011 Census.

¹⁰ See Meléndez and Duncan (2012) for a detailed history of Afro-Costa Ricans.

¹¹ Although the term used in the Census (*mulato* in Spanish) originally means person of mixed African and European ancestry, its wider use might just refer to people with darker skin.

took the best jobs. As a consequence, blacks had limited geographical mobility (e.g. they could not leave Limón for long, they were banned in 1934 to work in the south Pacific banana plantations when the UFCO moved their activities there due to the Panama disease) and they did not obtain Costa Rican citizenship until the 1950s right after the short civil war. The economy in Limón stagnated after the collapse of banana plantations in the Caribbean coast, and once the limitations of mobility were removed, many Afro-Caribbeans moved to the more prosperous central valley around San José looking for better job opportunities. There were also an intense migration to the US or other countries in the area that significantly decimated the population, while a growing Hispanic population settled in Limón and became the majority of the population there.¹² Despite the existence of anti-discriminatory legislation (e.g. Minott, 2005), this culturally differentiated Afro-Caribbean community lacks any official recognition from the state (e.g. Rangel, 2009) and still face negative prejudices from a significant part of the population. For example, 27% of interviewed Costa Ricans agreed in a survey that Afro-descendants are more aggressive and dangerous than the rest of people, 38% of whom claimed that this was determined biologically (Sandoval et al., 2010).

4. Methodology

4.1 Composite index of wellbeing

Let c_1, \dots, c_Q be a set of categorical variables describing wellbeing of a population of size N , where c_q is coded with consecutive integers $1, \dots, n_q$. Let Z^q be the $N \times n_q$ binary indicator matrix associated with c_q , with $Z_{ij}^q = 1$ if and only if the q th categorical variable for the i th individual $c_{iq} = j$.

For each variable c_q we estimate coordinates $s_1^q, \dots, s_{n_q}^q$ using the first extracted dimension with Multiple Correspondence Analysis (MCA).¹³ Let $\bar{s} = \bar{s}^1, \dots, \bar{s}^Q$ and $\underline{s} = \underline{s}^1, \dots, \underline{s}^Q$ be respectively the vectors with the highest and lowest scores associated with the Q categorical variables. Given that higher scores are associated here with lower wellbeing, \bar{s} and \underline{s} represent the worst and best possible profiles in terms of wellbeing. We define y_i to be a wellbeing composite index that summarizes the living conditions profile for the i th person as a weighted sum of the categories for this individual, where the weights are based on coordinates and represent the relative marginal contribution to the individual wellbeing of being in each category, compared with being in the worst category, normalized by the maximum possible contribution. The estimated weights for each category are shown in Table A1 in the appendix. Thus, the index is normalized to be

¹² A detailed description of the Afro-descendant population based on 2000 and 2011 censuses can be found in Putnam (2004) and Campbell (2012) respectively.

¹³ This first dimension explains 61.5% of the total variability (inertia), the second dimension only adds an additional 10%. We use MCA (instead of Principal Factor) because the variables are all defined as ordinal. However, the choice is irrelevant from an empirical point of view (the correlation is 97.5% between indices computed using both methods). As expected, the wellbeing index was shown to be positively and highly (although not perfectly) correlated with log of per-capita household net income (about 0.60) using the 2011 Household National Survey (*Encuesta Nacional de Hogares*, with similar variables). Correlation with income levels is lower because there are not many attributes that allow to properly identify the distance between the most affluent individuals. For this reason the index might also be interpreted as an index of material deprivation. In fact, the correlation with the index constructed using a set of similar variables but all of them defined as binary (deprived or not deprived as in Gradín, 2013a for South Africa) is also very high, 96.7%.

increasing in wellbeing and to range between 0, the value corresponding to the worst possible profile, and 1, that for the best possible profile¹⁴:

$$y_i = \sum_{q=1}^Q \sum_{j=1}^{n_q} Z_{ij}^q w_j^q, i = 1, \dots, N; \text{ with } w_j^q = \frac{\bar{s}^q - s_j}{\sum_{q=1}^Q (\bar{s}^q - \underline{s}^q)}.$$

4.2 Decomposing the gap in wellbeing

In order to obtain a decomposition of the gap in wellbeing between whites/mestizos and racial/ethnic minorities in Costa Rica (and between native-born and immigrants), we use the well-known regression-based Blinder (1973) and Oaxaca (1973) approach. The original approach was applied to decompose intergroup differences in the average values of wages into the part that was explained by characteristics and the part that remained unexplained. Later, the approach was extended to deal with gaps at different quantiles of the distribution of the variable of interest. Among the various extensions, we here follow that proposed by Firpo, Fortin and Lemieux (2007, 2009) based on unconditional quantile regressions.¹⁵

Let us consider the population is split in two groups. Let y^g , be the vector indicating the level of wellbeing index for members of group g , where $g=0$ indicates the reference group (white/mestizo in the case of race/ethnicity; people born in Costa Rica in the case of country of birth), and $g=1$ the target group (minority). We first estimate separately for each group the level of wellbeing as a function of a vector X^g of household's characteristics: $\hat{y}^g = X^g \hat{\beta}^g$. Where $\hat{\beta}^g$ is the associated OLS vector of estimated coefficients.

Among the explanatory variables for explaining the race/ethnicity gap, we included several that might affect the wellbeing in a household. Location is measured by a dummy indicating whether the area is urban or rural and by the region of residence¹⁶. We also considered the number of children (0-15 years old) in the household, and householder's age (less than 35, 35-50, 51-64, 65 or more), sex, and immigration status¹⁷. We have also included the achieved level of education of the household head (none, primary, high school, and college) and the percentage of all adults in the household with each educative level. Labor market performance includes householder's labor status (not in the labor force, unemployed and occupation and industry at 1 digit disaggregation), the percentages of adults employed and unemployed, and a dummy indicating whether the household receives or not remittances from abroad. In the case of the analysis by country of origin, all variable are the same except that head's immigration status is replaced by individual race (black or mulatto, white or mestizo, indigenous, or other).

Given that wellbeing is defined over the characteristics of the dwelling and all explanatory variables are collected at the household level, we estimated robust standard errors taking into account correlation between observations within the same sample cluster (here the dwelling), while assuming independence across clusters (see Cappellari and Jenkins, 2004).

¹⁴ This index is just a linear transformation of the predicted value, usually standardized to have zero mean and standard deviation equal to 1.

¹⁵ For a similar distributive approach but using income, see Gradín (2013c).

¹⁶ Great Metropolitan Area, Rest of Central Region, Chorotega, Pacific Central, Brunca, Atlantic Huetar, and Northern Huetar.

¹⁷ It includes information about householder birthplace (same canton, another canton, Nicaragua, Panama, rest of Central America, US or Canada, another country), place of residence five years ago (same canton, another canton, another country), and whether the household is sending remittances abroad.

The average wellbeing in group g , \bar{y}^g , is equal to the average predicted probability for this group (with population N^g):

$$\bar{y}^g = \frac{1}{N^g} \sum_{i=1}^{N^g} \hat{y}_i^g = \bar{X}^g \hat{\beta}^g.$$

Let us consider the counterfactual average wellbeing distribution $\bar{X}^0 \hat{\beta}^1$ in which minorities are given the characteristics (on average) of the reference group while keeping their own estimated coefficients (the impact of characteristics on wellbeing). By adding and subtracting the counterfactual, and re-arranging terms, we can rewrite the differential in average wellbeing between the majority and the minority as the sum of the *aggregate characteristics effect* (gap explained by shifting characteristics valued at the coefficients of the target group) and the *aggregate coefficients effect* (unexplained gap due to characteristics having a different impact for each group):

$$\bar{y}^0 - \bar{y}^1 = \bar{X}^0 \hat{\beta}^0 - \bar{X}^1 \hat{\beta}^1 = (\bar{X}^0 - \bar{X}^1) \hat{\beta}^1 + \bar{X}^0 (\hat{\beta}^0 - \hat{\beta}^1).$$

Given the linearity of the regressions, the evaluation of the individual contribution of each variable x_k ($k=1, \dots, K$) to the characteristics and coefficients effects, the detailed decomposition, can be estimated respectively as $W_k^{\Delta X} = (\bar{x}_k^0 - \bar{x}_k^1) \hat{\beta}_k^1$ and $W_k^{\Delta \beta} = \bar{x}_k^0 (\hat{\beta}_k^0 - \hat{\beta}_k^1)$. Thus, the individual effects sum up the corresponding aggregate effects. To prevent the identification problem associated with the detailed decomposition of the coefficients effect (the results for categorical variables depend on which is the omitted category, Oaxaca and Ransom, 1999), we use the normalization proposed in Yun (2005, 2008).¹⁸

The previous approach allows the decomposition only at the mean. However, it is interesting to ask how much the pattern of differences in wellbeing between two given groups varies along its whole distribution. For that, we used an extension of the previous approach that allows to evaluate the impact of changes in the distribution of household attributes on different quantiles of the unconditional (marginal) distribution of wellbeing (Firpo, Fortin and Lemieux, 2007, 2009). It is well-known that the decomposition at quantiles is technically more complicated than the decomposition at the mean. This method solves these problems by applying the conventional Blinder-Oaxaca decomposition but using regressions of the recentered influence function (*RIF*) of unconditional quantiles of the variable of interest (instead of the variable of interest) on the explanatory variables.

For any τ -th quantile of the wellbeing distribution, q_τ , its recentered influence function $RIF(y; q_\tau)$ is given by adding the quantile to its influence function $IF(y; q_\tau)$:

$$RIF(y; q_\tau) = q_\tau + IF(y; q_\tau) = q_\tau + [\tau - \mathbf{1}(y \leq q_\tau)]/f(q_\tau)$$

Where $\mathbf{1}()$ is an indicator function that takes value 1 if the specified condition is satisfied and 0 otherwise. If we label $\hat{\gamma}_\tau^g$ the vector of coefficients estimated by regressing $RIF(y^g; q_\tau)$ on X^g , we obtain the corresponding aggregate explained and unexplained effects: $W^{\Delta X} = (\bar{X}^0 - \bar{X}^1) \hat{\gamma}_\tau^1$ and $W^{\Delta \beta} = \bar{X}^0 (\hat{\gamma}_\tau^1 - \hat{\gamma}_\tau^0)$. Similarly to the previous case, the detailed effects are estimated using the specific characteristics and their corresponding coefficients: $W_k^{\Delta X} =$

¹⁸ The results were obtained using the *OAXACA* Stata module (RePEc:boc:bocode:s456936) written by B. Jann.

$(\bar{x}_k^0 - \bar{x}_k^1)\hat{\gamma}_{\tau k}^1$ and $W_k^{\Delta\beta} = \bar{x}_k^0(\hat{\gamma}_{\tau k}^1 - \hat{\gamma}_{\tau k}^0)$.¹⁹ Repeating the procedure for different quantiles (i.e. 10th, 25th, 50th, 75th and 90th) we are able to explain the ethnic gap along the entire distribution.

5. Results

5.1 Wellbeing, race, and ethnicity in Costa Rica

Table 1 reports the values of the normalized wellbeing index estimated at different points of the distribution and for different partitions of the population. The average value of the index for the population is 0.75, that is, the average Costa Rican has a weighted wellbeing that is about $\frac{3}{4}$ of the best possible profile given the set of categorical variables used to describe basic living conditions in the country. The values have an important variability: for example, 0.60 and 0.89 for the 10th and 90th percentiles respectively. The distribution of the index by characteristics follows the expected pattern. Wellbeing is higher (at any quantile) in urban areas, in the central provinces (i.e. San José, Heredia or Cartago), and for people (at least 25 years old) with college degree and a white collar occupation. On the contrary, it is lower in rural areas, in peripheral provinces (Limón, Puntarenas and Guanacaste), for people without any formal education, and for those working in blue-collar and agrarian occupations.

There is a significant gap regarding ethnicity and country of origin. This is shown in more detail in Figures 1 to 4 that display the kernel densities of the wellbeing index for different population groups in Costa Rica. It becomes clear in Table 1 and Figure 1 that indigenous people stand out for generally showing the lowest levels of wellbeing (0.62 on average).²⁰ As Figure 2 highlights, there is also large heterogeneity among indigenous people depending on whether they live in reservations (the lowest levels), in the nearby (outside the reservation but in cantons with a reservation), and in the rest of the country (with the highest wellbeing). On the opposite side, a small group of affluent Chinese are concentrated at the highest levels of wellbeing among all population groups, followed by whites/mestizos, and then closely by blacks/Africans. Mulattoes are found somewhere in between both extremes. Table 1 also shows that the wellbeing of Afro-descendants (black and mulatto) is determined by that of the largest group, mulattoes.

Similarly, as shown in Table 1 and Figure 3, there is a large gap in wellbeing between immigrants from Panama and Nicaragua compared with those born in Costa Rica and immigrants from other countries. As mentioned before, there is a strong relationship between the gaps in Figures 2 and 3, as many Nicaraguan and Panamanian immigrants are indigenous or Afro-descendant. More specifically, 44% of immigrants from Panama are indigenous (but only 2% from Nicaragua), while 16% of immigrants from Nicaragua are mulatto and near 2% black. Similarly, 7% of immigrants from Panama are mulatto and 5% black. The other side of this picture is that nearly 11% of blacks

¹⁹ The RIF of different unconditional quantiles is obtained using the *RIFREG* Stata code (<http://faculty.arts.ubc.ca/nfortin/datahead.html>) from Firpo, Fortin and Lemieux (2009), and then the *OAXACA* code is used for the decomposition.

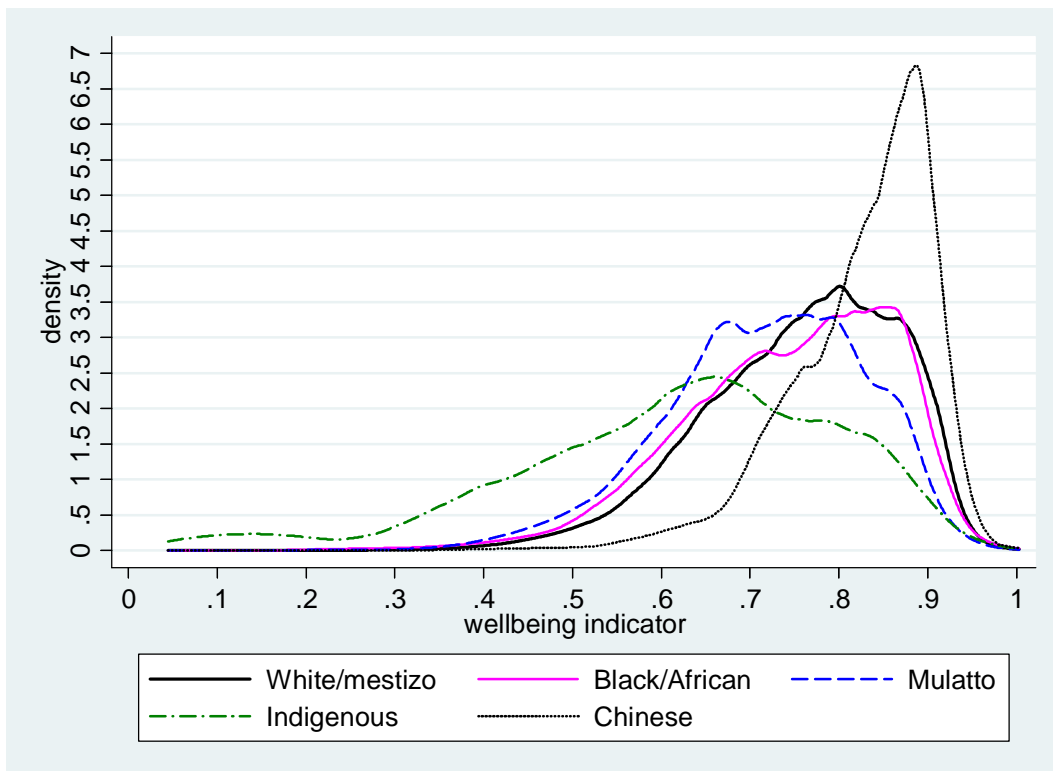
²⁰ At this point it is necessary to introduce a note of caution. The wellbeing index is constructed for the country as a whole and based on objective attributes. Thus, living in traditional dwellings (constructed with natural materials, lack of domestic appliances, etc.) will be associated with severe poor living conditions. However, in the case of indigenous populations, especially for those in indigenous territories, it might also reflect the preservation of their cultural values. The problem with the use of this wellbeing index in this context does not differ much from that with the use of other indices of wellbeing such as consumption or income. Using a unique index to judge wellbeing in two population groups with different cultures and social values is always problematic.

and 15% of mulattoes in Costa Rica are born in Nicaragua and 11% of indigenous people are either from this nationality or from Panama.

Given the particular history of blacks in Costa Rica discussed in the previous sections, it is interesting to look in more detail at the distribution of wellbeing in the Limón province. This is shown in Figure 4. Clearly, there blacks outstand for sharing the highest wellbeing (in a generally poor province), while there is barely no distinction in the distribution of mulattoes and whites/mestizos. Indigenous people, however, show no significant difference with their relative position for the whole country as this is one of the main indigenous areas.

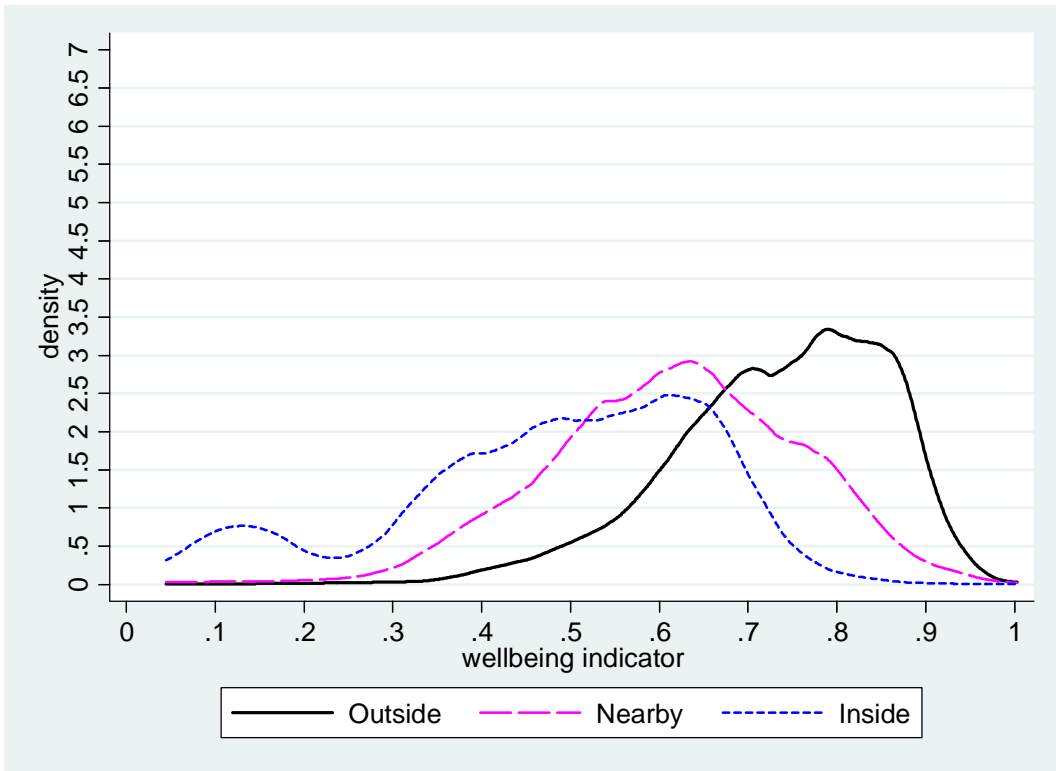
Understanding the nature of these differences based on race/ethnicity and country of origin, is the aim of this section, for which we will use the decomposition techniques described in the previous section. The main point is to find out the extent to which these differences are explained by groups having different composition by other characteristics such as education, location, performance in the labor market, etc.

Figure 1. Wellbeing distribution by race and ethnicity in Costa Rica



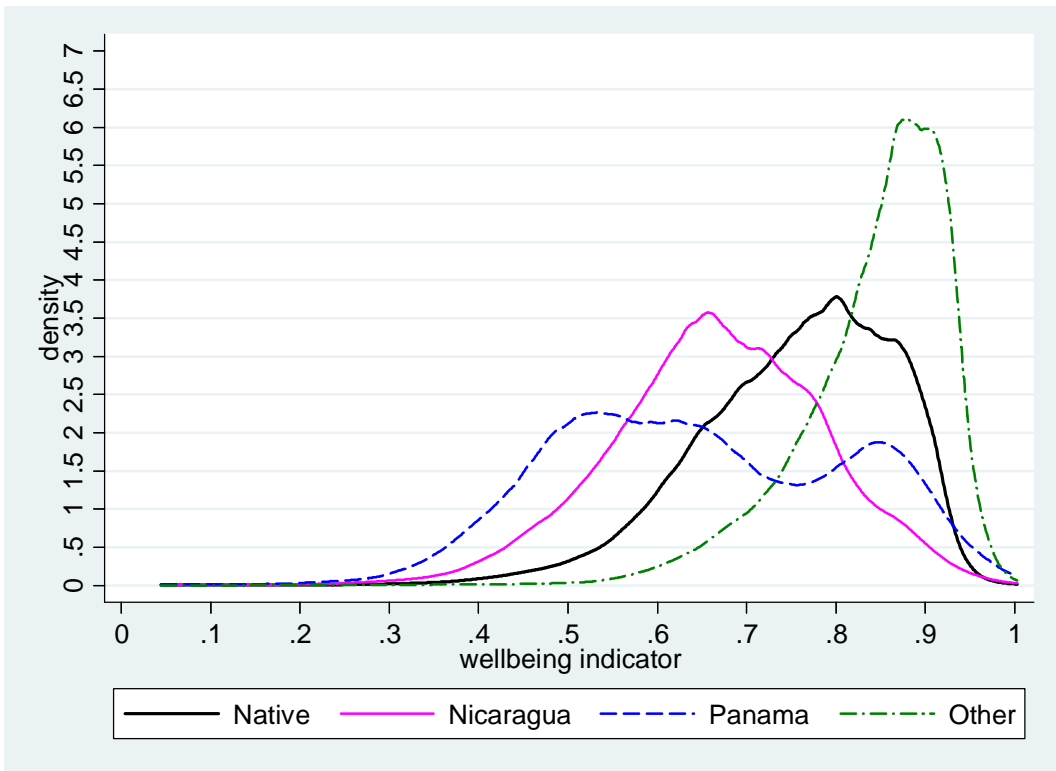
Source: Own construction based on 2011 Census.

Figure 2. Wellbeing distribution among indigenous people inside/outside indigenous territories in Costa Rica



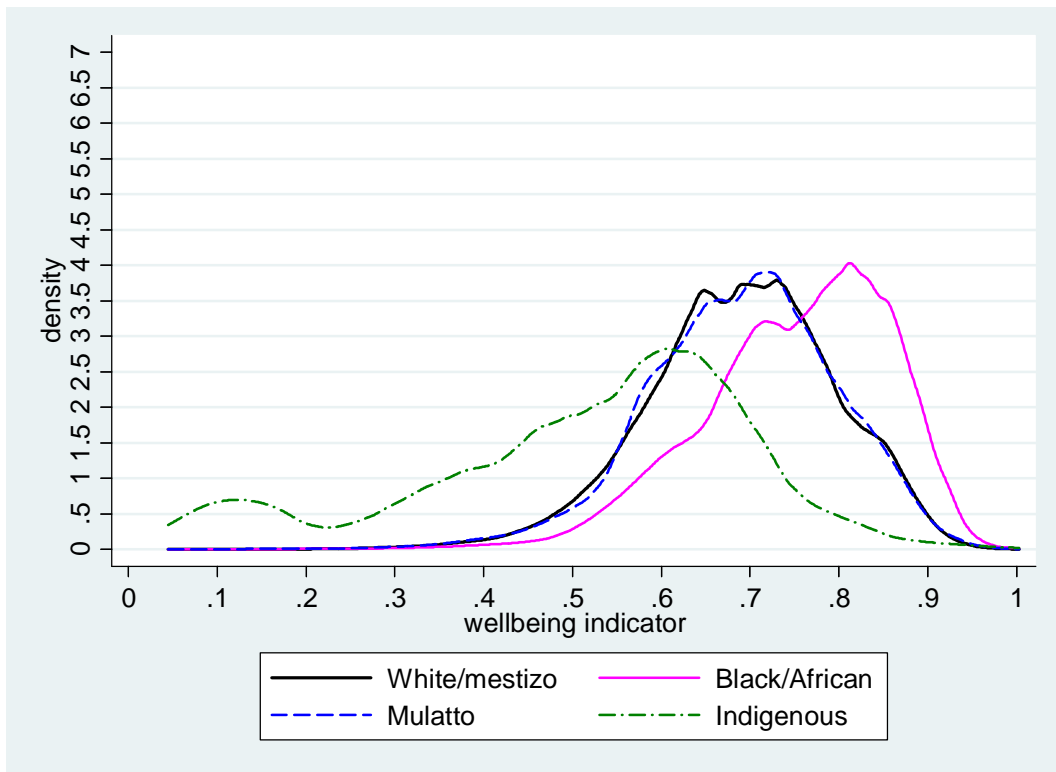
Source: Own construction based on 2011 Census.

Figure 3. Wellbeing distribution by country of origin in Costa Rica



Source: Own construction based on 2011 Census.

Figure 4. Wellbeing distribution by race and ethnicity in Limón



Source: Own construction based on 2011 Census.

Table 1. Wellbeing distribution in Costa Rica

	Population	Mean	Percentiles				
	%		10	25	50	75	90
Total	100	0.749	0.598	0.677	0.765	0.837	0.886
Black/African	1.0	0.743	0.584	0.666	0.761	0.837	0.882
Mulatto	6.7	0.716	0.567	0.644	0.725	0.801	0.859
Afro-descendants (black & mulatto)	7.7	0.720	0.569	0.646	0.728	0.806	0.863
Chinese	0.2	0.826	0.722	0.782	0.842	0.886	0.912
White/Mestizo	83.7	0.757	0.609	0.687	0.771	0.842	0.889
Other race/ethnicity	0.9	0.717	0.555	0.637	0.726	0.803	0.871
None race/ethnicity	2.9	0.730	0.583	0.656	0.743	0.813	0.870
Ignored race/ethnicity	2.2	0.730	0.565	0.649	0.744	0.822	0.878
Indigenous	2.4	0.617	0.372	0.510	0.639	0.755	0.838
Native-born	91.1	0.754	0.606	0.684	0.769	0.839	0.886
Nicaragua	6.6	0.666	0.512	0.590	0.668	0.749	0.817
Panama	0.3	0.648	0.440	0.518	0.638	0.791	0.873
Other Central America	0.9	0.822	0.693	0.770	0.842	0.893	0.925
US & Canada	0.4	0.849	0.752	0.814	0.864	0.899	0.926
Other countries	0.7	0.862	0.770	0.828	0.876	0.911	0.933
Urban	72.7	0.777	0.639	0.713	0.792	0.855	0.896
Rural	27.3	0.676	0.522	0.606	0.687	0.760	0.818
San José	32.7	0.780	0.639	0.712	0.794	0.861	0.901
Alajuela	19.7	0.740	0.587	0.670	0.759	0.824	0.871
Cartago	11.4	0.773	0.643	0.719	0.788	0.846	0.889
Heredia	10.1	0.794	0.644	0.737	0.815	0.874	0.909
Guanacaste	7.6	0.704	0.554	0.635	0.713	0.787	0.843
Puntarenas	9.6	0.692	0.545	0.623	0.699	0.775	0.833
Limón	9.0	0.679	0.535	0.613	0.689	0.761	0.828
Less than Primary	4.5	0.648	0.482	0.580	0.660	0.739	0.794
Primary	44.0	0.717	0.583	0.654	0.729	0.792	0.839
High School	28.9	0.778	0.652	0.722	0.792	0.846	0.883
College	22.7	0.848	0.751	0.815	0.865	0.899	0.922
Legislators, senior officials & managers	1.5	0.804	0.858	0.894	0.920	0.940	0.940
Professionals	14.3	0.782	0.834	0.877	0.906	0.926	0.927
Technicians & associate professionals	10.0	0.722	0.789	0.842	0.881	0.908	0.909
Clerks	7.9	0.700	0.764	0.820	0.865	0.894	0.895
Service workers, shop & market sales	20.2	0.644	0.710	0.780	0.837	0.878	0.880
Skilled agricultural and fishery workers	4.5	0.520	0.615	0.703	0.776	0.829	0.832
Crafts & related trades workers	11.6	0.621	0.688	0.762	0.822	0.867	0.869
Plant & machine operators/assemblers	8.7	0.650	0.716	0.776	0.825	0.864	0.865
Elementary occupations	21.4	0.547	0.621	0.694	0.764	0.820	0.823

Note: Education (25 years old or above). Occupation (16 years old or above).

Source: Own construction based on 2011 Census.

5.2 Explaining the gap in wellbeing of mulattoes and indigenous people

The results of the decomposition of the gap in wellbeing by race/ethnicity for mulattoes and indigenous people at the mean and at different quantiles (10th, 25th, 50th, 75th, and 90th) are shown in Table 2. Generally speaking, a large proportion of the gap in wellbeing between whites/mestizos and the two disadvantaged minorities, mulattoes and indigenous people, can be explained by these minorities having poorer endowments. More specifically, about 66% and 77% of the average gap, respectively, is explained by characteristics. However, a look at the distributive pattern, shows that in both cases, the proportion that is explained is relatively low at the bottom of the distribution (52% and 38% at the 10th quantile), and then sharply increases for higher quantiles (96% and 161% at the 90th). This is the combined effect of an overall gap that is rather stable (mulattoes) or sharply declines (indigenous) for higher quantiles, while the gap explained by characteristics is increasing. That is, the gap by race/ethnicity is larger among the poor, and a larger proportion of it remains even when people are compared with similar characteristics. On the contrary, the whole gap among the most affluent people is explained by minorities having a higher prevalence of characteristics associated with lower wellbeing.

Looking at what factors are explaining the gap in wellbeing at the mean, both groups share some similarities. The lower education in their households turns out to be the most important single factor, associated with about one quarter of the gap. The higher number of children (7-8% of the gap) and the worst performance of these groups in the labor market (10-13%) also play a significant role. But these groups also differ in the relevance of other factors, however. The larger proportion of immigrants plays a substantial role only in the case of mulattoes (16%) given the larger share of people of this group born abroad. Additionally, other demographic factor (head's age or sex) matter only for mulattoes, although marginally (3%). For indigenous people, it is location what matters most (explaining about one third of the gap altogether) due to their overrepresentation in rural areas (20% of the gap) and in the poorest regions of the country (14%). This is the reason why the proportion of the gap explained for this group is larger than in the case of mulattoes, who on average have a geographical distribution similar to that of whites/mestizos.

Not only the magnitude of the gap explained but the relevant factors vary across the distribution of wellbeing, but also what are the relevant factors, and both groups show different patterns. In the case of mulattoes, the gap explained by education and labor variables increases for higher quantiles, at the same time that some demographic factors, such as the number of children and immigration, or location become less important.²¹ In the case of indigenous people, education tends to explain the largest gap in the bottom of the distribution and labor variables in the middle. It is the region of residence that becomes more important to explain the differential in higher quantiles in this group, while the area of residence (rural or urban) and the number of children, among other factors, decrease in importance.

For both minorities, had they shared the same characteristics as the reference group, there would remain an unexplained gap that is especially higher at the bottom of the distribution of wellbeing. In fact, the unexplained gap at the top becomes nearly zero for mulattoes and negative for indigenous people, meaning that the observed gap for the latter group should be even larger than it actually is. Then, it is interesting to ask whether we can identify which

²¹ A similar distributive trend (increasing importance of education, decreasing relevance of demographic factors) was found in Gradín (2013b) explaining the income gap between whites and Afro-descendants (blacks and mixed race) in Brazil, using for that a different regression-based procedure (re-weighting).

characteristics are having a different effect on wellbeing by population group. In the case of mulattoes, the coefficients effects at the mean tend to be small and not significant. However, at the bottom of the distribution, where the unexplained gap is largest, we find positive and significant effects of region and the number of children, meaning that living in the poorest regions and having children tends to lower the wellbeing of mulattoes more than for whites/mestizos.

In the case of indigenous people, the region of residence and the number of children, like for mulattoes, but also performance in the labor market and immigration status tend to have a substantial differential effect on this group at the bottom of the distribution leading to a larger unexplained gap. On the opposite side, it is worth noting that their wellbeing is less affected by education (negative coefficient effect). Similarly, their wellbeing is reduced less than for whites/mestizos when they live in rural areas (especially in the middle of the distribution) and in the poorest regions (at the top).

5.3 Explaining the gap in wellbeing of Nicaraguan and Panamanian immigrants

The results of the decomposition of the gap in wellbeing by country of origin are shown in Table 3. In the case of immigrants from Panama and Nicaragua, as compared with native-born people, the proportion of the gap actually explained by their poorer endowments is large for the former (79%) but relatively small for the latter (only 45%). Similar to the case of racial/ethnic minorities, the gap in wellbeing that is explained by characteristics is small at the bottom (37% and 21% respectively) but increases for higher quantiles, such that in both cases more than 100% is explained at the top. This is the result of a sharply shrinking gap in the case of Panamanians, with an explained gap that is largest at the middle of the distribution. In the case of Nicaraguans the gap is rather stable but the explained gap is increasing with higher quantiles. In particular, this means that the large unexplained gap found on average for Nicaraguans is mainly driven by what happens at the bottom of the distribution.

Regarding the driving factors, these groups have many things in common with racial/ethnic minorities. In the difference at the mean, the lower achieved education, again, plays the most significant role, around 20% for both groups, and there is an important contribution from the labor market (around 10%). The other demographic factors are not of much relevance, except that householder's age explains about 4% of the gap for both groups; and a similar share is explained by the number of children in the case Nicaraguans. There are two main differences between immigrants from Panama and Nicaragua that make that while the mean gap for the former is explained to a large extent, more than a half of the gap for the latter remains unexplained. First, 24% of the gap in wellbeing between people born in Panama and those born in Costa Rica comes from differences in ethnicity because 44% of Panamanians are indigenous and another 13% Afro-descendant. Secondly, another quarter of the gap is due to them being overrepresented in rural areas (13%) and the poorest regions of the country (10%). On the other hand, neither race/ethnicity nor location are especially relevant for explaining the gap in wellbeing for Nicaraguans. This suggests that the remaining gap must come from elsewhere, probably associated with how differently their endowments are valued in the labor market, either the result of some sort of discrimination against people of this nationality, or from a lower quality of their endowments (e.g. of their human capital) in the host market.

Similar to what we found for mulattoes, in the case of Nicaraguans, there is an increasing gap for higher quantiles that is mostly explained by education and labor variables, and a decreasing relevance of the number of children and location. However, for Panamanians, education and

labor variables tend to explain the largest gap in the middle of the distribution. It is the region of residence that becomes more important to explain the differential in higher quantiles like for indigenous people, while the area of residence and the number of children, among other factors, decrease in importance.

In both foreign minorities, had the groups shared the same characteristics as the reference group, there would remain an unexplained gap that is especially higher in the case of Nicaraguans, but significant also for Panamanians. Then, it is interesting to ask again whether we can identify which characteristics are having a different effect on wellbeing by population group.

In the case of Nicaraguans, the group with the largest unexplained effect, there is a positive and significant contribution of most detailed effects, what suggest that this group is taking less advantage of their endowments than native-born. The most outstanding case is the large and significant coefficient effect of education (27% of the gap). This means that Nicaraguans have more difficulties to transform their education into better living conditions. Although why this is the case would need a more detailed analysis of the labor market, this is consistent with either lower quality of their education (at least as perceived by the host market, well-known limited transferability of human capital) and with any sort of discrimination (e.g. limited access to better jobs given their education, lower wages for the same job). This is reinforced by the large effects also found for labor market variables (12% of the gap). Another salient coefficient effect is that of race/ethnicity, that in this context might be interpreted as an interaction effect of ethnicity and immigration: Nicaraguans belonging to an ethnic minority (Afro-descendants or indigenous) tend to be worse off than those white or mestizo.

For Panamanians, there are only two significant effects, and both are negative, so meaning that the wellbeing of this population is less shrunked by them having more children and living in rural areas (maybe the consequence of the specific economic activities in which this people engage). The gap in wellbeing would be about 20% higher if the effects were the same as those for native-born.

5.4 The special case of blacks

Finally, we undertake the same decomposition exercise for the gap between whites/mestizos and blacks. Although the gap is on average pretty small, the decomposition will reveal some interesting features. On the one hand, like in the other cases, blacks have a higher prevalence of some characteristics associated with a lower wellbeing that jointly explain about 50% of the gap (however, a smaller absolute magnitude than in the other minorities): a larger share of immigrants (that explains 20% of the gap), more people living in poor regions (i.e. Atlantic Huetar, 17%), and more children in their households (9%). On the other hand, the distinctive fact of this Costa Rican blacks is that, at the same time, they also have a higher prevalence of some characteristics associated with higher wellbeing (negative characteristics effects): higher attained education and proportion of population living in rural areas.²² If the distribution of these two characteristics among blacks were the same as among whites and mestizos, the gap in wellbeing should be near 60% larger (respectively 36% and 21%). The negative effects are in

²² Gradín (2012) has studied the implications of this to explain observed occupational segregation by race in Costa Rica, along other Latin American countries, using the 2000 Census. It was particularly note-worthy the segregation of black women into the best occupations due to their relatively higher achieved education.

fact larger than the positive effects, and then the explained portion of the overall gap is actually negative, although small. This means that the whole observed gap remains unexplained (in fact even is a bit higher) after controlling for characteristics and its magnitude is similar to that of mulattoes (0.015 versus 0.014). Comparing the results for blacks and mulattoes, one can conclude that blacks have on average a higher wellbeing than that of mulattoes, because of their higher achieved education, better jobs, and higher urbanization, combined with a lower number of children and lower proportion of (Nicaraguan) immigrants.

The gap between whites/mestizo and blacks also shows a particular distributive pattern. The observed gap is largest at the bottom of the distribution and the explained gap is negative at the 25th and 50th quantiles. This is due to the negative contribution of region and area (some poor blacks live in the richest towns in the central valley), and education (they have more years of schooling than the majority). It is worth noting that the gap explained by education is negative all over the distribution (although not significant at the 10th percentile).

Among the detailed unexplained effects, the large and significant positive effect of education is remarkable (it is significant at 10% at the mean and 25th percentile), indicating that some blacks take little advantage of their higher levels of education when it comes to translate that into a higher level of wellbeing. This is a reflection of this group having lower opportunities due to any sort of discrimination, which is consistent with their higher rates of migration out of Limón and abroad.

Table 2. Decomposition of the gap in wellbeing (100-index) by race/ethnicity

	Mulatto						Indigenous people					
	mean	p10	p25	p50	p75	p90	mean	p10	p25	p50	p75	p90
White/mestizo	75.73	60.94	68.66	77.13	84.20	88.89	75.73	60.94	68.66	77.13	84.20	88.89
	0.09	0.13	0.12	0.11	0.08	0.05	0.09	0.13	0.12	0.11	0.08	0.05
Race/ethnic minority	71.61	56.66	64.35	72.47	80.12	85.92	61.73	37.19	51.01	63.87	75.55	83.84
	0.14	0.26	0.20	0.18	0.15	0.14	0.40	0.92	0.64	0.48	0.45	0.33
Gap	4.12	4.28	4.30	4.66	4.08	2.98	14.00	23.75	17.64	13.26	8.65	5.06
	0.12	0.25	0.19	0.16	0.14	0.13	0.38	0.91	0.63	0.46	0.43	0.31
Explained	2.73	2.23	2.41	3.10	3.05	2.85	10.81	8.99	11.91	12.00	12.89	8.16
	0.10	0.17	0.12	0.13	0.11	0.11	0.35	0.84	0.52	0.39	0.38	0.33
Region	0.21	0.33	0.27	0.24	0.16	0.11	1.95	-0.28	0.72	2.51	4.03	3.01
	0.03	0.08	0.04	0.04	0.03	0.03	0.20	0.42	0.37	0.32	0.38	0.30
Area	-0.03	-0.06	-0.04	-0.04	-0.02	-0.01	2.73	2.42	3.76	3.29	3.06	0.86
	0.01	0.03	0.02	0.02	0.01	0.00	0.17	0.46	0.33	0.30	0.28	0.23
Children	0.33	0.54	0.41	0.33	0.20	0.10	0.98	2.35	1.13	0.91	0.25	0.08
	0.03	0.07	0.05	0.04	0.02	0.02	0.22	0.60	0.48	0.20	0.12	0.07
Sex	0.03	0.01	0.01	0.04	0.04	0.04	0.01	0.04	0.04	0.02	-0.04	-0.05
	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.04	0.03	0.02	0.02	0.03
Age	0.11	0.03	0.12	0.17	0.13	0.08	0.00	-0.11	-0.02	0.02	0.04	0.09
	0.02	0.05	0.04	0.03	0.03	0.02	0.05	0.12	0.08	0.05	0.04	0.03
Education	1.05	0.44	0.65	1.18	1.50	1.56	3.32	4.10	4.09	2.78	3.45	2.97
	0.05	0.07	0.06	0.06	0.08	0.09	0.26	0.66	0.48	0.25	0.23	0.22
Immigration	0.64	0.79	0.75	0.78	0.49	0.31	0.05	-0.80	0.36	0.30	0.12	-0.01
	0.04	0.09	0.06	0.06	0.04	0.04	0.12	0.45	0.25	0.14	0.12	0.09
Labor	0.40	0.14	0.23	0.40	0.55	0.65	1.77	1.27	1.84	2.18	1.98	1.19
	0.04	0.07	0.05	0.05	0.05	0.06	0.20	0.55	0.40	0.19	0.26	0.22
Unexplained	1.39	2.05	1.89	1.57	1.02	0.12	3.19	14.76	5.73	1.26	-4.24	-3.11
	0.09	0.20	0.15	0.12	0.13	0.16	0.19	0.45	0.31	0.31	0.39	0.46
Region	0.09	0.31	0.64	0.33	-0.20	-0.43	0.58	2.91	3.17	0.91	-2.40	-2.72
	0.08	0.18	0.17	0.14	0.10	0.10	0.17	0.36	0.36	0.25	0.39	0.37
Area	0.04	0.10	0.12	-0.07	-0.07	-0.06	-1.24	-0.37	-1.62	-1.61	-1.87	-0.55
	0.06	0.16	0.12	0.09	0.06	0.05	0.12	0.33	0.24	0.21	0.20	0.17
Children	0.38	0.55	0.12	0.42	0.46	0.33	0.52	2.15	0.12	0.43	-0.10	-0.03
	0.09	0.25	0.18	0.13	0.11	0.09	0.35	1.02	0.86	0.33	0.21	0.13
Sex	-0.01	-0.13	0.08	0.05	-0.01	-0.16	0.36	0.55	0.72	0.67	-0.11	-0.42
	0.05	0.15	0.08	0.08	0.06	0.07	0.12	0.42	0.30	0.15	0.15	0.14
Age	0.01	-0.19	0.03	0.09	0.05	-0.03	0.40	0.40	0.71	0.34	0.31	0.00
	0.05	0.12	0.09	0.07	0.06	0.06	0.15	0.53	0.27	0.13	0.13	0.10
Education	-0.90	1.37	1.20	-1.67	-3.33	-2.72	-3.61	-2.49	-10.05	-3.05	-5.48	-3.29
	1.06	3.83	1.74	1.06	0.69	0.48	1.56	6.34	3.08	1.61	1.21	0.89
Immigration	0.09	1.05	1.27	-0.02	-0.92	-0.49	0.77	3.34	3.65	0.07	-0.89	0.54
	0.34	0.91	0.60	0.51	0.60	0.70	1.21	3.61	1.74	1.26	1.37	1.62
Labor	0.33	-0.83	-1.06	1.03	1.56	1.02	1.86	4.86	1.32	-0.22	1.61	-0.18
	0.33	0.70	0.53	0.53	0.55	0.58	0.79	2.42	1.51	1.07	1.18	1.30
Intercept	1.35	-0.19	-0.51	1.40	3.50	2.66	3.54	3.42	7.70	3.72	4.68	3.54
	1.16	3.97	2.01	1.28	0.95	1.04	2.30	7.50	3.75	2.35	2.12	2.04

Source: Own construction based on 2011 Census.

Table 3. Decomposition of the gap in wellbeing (100-index) by country of birth

	Nicaragua						Panama					
	mean	p10	p25	p50	p75	p90	mean	p10	p25	p50	p75	p90
Born in Costa Rica	75.37	60.64	68.42	76.88	83.87	88.61	75.37	60.64	68.42	76.88	83.87	88.61
	0.11	0.15	0.13	0.12	0.09	0.06	0.11	0.15	0.13	0.12	0.09	0.06
Foreign minority	66.61	51.16	59.04	66.80	74.86	81.71	64.76	44.01	51.79	63.82	79.10	87.30
	0.16	0.31	0.23	0.19	0.18	0.19	0.80	1.21	1.09	1.35	1.13	0.61
Gap	8.76	9.47	9.38	10.08	9.01	6.90	10.62	16.63	16.63	13.06	4.77	1.31
	0.12	0.28	0.19	0.15	0.15	0.17	0.78	1.21	1.07	1.33	1.11	0.60
Explained	3.94	1.98	2.47	3.42	5.22	7.47	8.33	6.07	7.66	11.91	8.65	3.42
	0.15	0.36	0.21	0.15	0.15	0.21	0.88	1.50	1.33	1.48	1.34	0.84
Region	0.16	0.21	0.14	0.12	0.13	0.08	1.10	0.24	-1.16	0.01	3.82	2.55
	0.08	0.24	0.13	0.07	0.06	0.09	0.38	0.57	0.64	0.78	0.95	0.68
Area	0.08	0.11	0.11	0.09	0.07	0.04	1.40	2.11	2.73	1.89	0.54	0.20
	0.02	0.03	0.03	0.03	0.02	0.01	0.26	0.58	0.51	0.59	0.36	0.20
Children	0.38	0.56	0.47	0.37	0.34	0.21	0.20	-0.51	1.31	0.73	-0.05	-0.15
	0.03	0.07	0.05	0.04	0.03	0.03	0.23	0.47	0.52	0.45	0.31	0.09
Sex	-0.01	0.01	0.00	-0.02	-0.01	-0.03	-0.21	0.12	-0.19	-0.14	-0.50	-0.53
	0.01	0.01	0.01	0.01	0.01	0.01	0.13	0.29	0.18	0.15	0.24	0.22
Age	0.35	-0.31	0.13	0.40	0.67	0.77	0.36	0.01	0.26	0.46	0.86	0.39
	0.04	0.12	0.06	0.05	0.06	0.07	0.15	0.39	0.28	0.23	0.23	0.15
Education	1.88	1.35	1.12	1.46	2.39	3.89	1.94	1.92	2.44	2.41	1.82	0.69
	0.07	0.13	0.08	0.09	0.12	0.18	0.40	1.00	0.78	0.64	0.55	0.22
Race/ethnicity	0.08	-0.02	0.06	0.14	0.11	0.14	2.53	2.64	1.67	4.25	0.94	0.45
	0.02	0.06	0.04	0.03	0.04	0.04	0.58	1.12	1.09	1.03	0.85	0.40
Labor	1.01	0.08	0.44	0.85	1.52	2.38	1.02	-0.48	0.59	2.29	1.22	-0.18
	0.08	0.16	0.11	0.10	0.10	0.16	0.39	0.91	0.72	0.65	0.62	0.41
Unexplained	4.83	7.49	6.91	6.66	3.79	-0.57	2.29	10.56	8.97	1.16	-3.88	-2.11
	0.15	0.32	0.23	0.18	0.19	0.27	0.62	1.08	0.96	1.20	1.23	0.96
Region	0.55	0.16	0.98	1.15	0.62	-0.13	-0.35	1.80	1.83	0.58	-4.61	-1.57
	0.10	0.26	0.16	0.12	0.13	0.15	0.50	0.51	0.72	0.88	1.27	0.81
Area	-0.07	0.36	-0.03	-0.17	-0.35	-0.34	-0.59	-0.60	-1.56	-1.07	-0.18	-0.11
	0.07	0.15	0.12	0.10	0.09	0.07	0.21	0.53	0.43	0.54	0.35	0.19
Children	-0.09	-0.69	-0.37	0.14	0.77	0.65	-1.43	-3.50	-0.95	-0.65	-0.67	-0.38
	0.11	0.25	0.21	0.13	0.12	0.12	0.22	0.46	0.32	0.39	0.31	0.08
Sex	0.16	0.06	0.17	0.23	0.30	-0.04	-0.23	0.22	-0.22	0.09	-0.74	-0.92
	0.06	0.16	0.10	0.08	0.08	0.11	0.28	0.65	0.40	0.34	0.52	0.46
Age	0.29	-0.35	0.03	0.30	0.72	0.72	-0.10	0.11	-0.39	-0.40	0.82	0.45
	0.05	0.14	0.08	0.06	0.08	0.11	0.20	0.54	0.35	0.30	0.41	0.25
Education	2.39	6.03	4.00	0.83	-2.46	-4.17	3.51	13.52	5.74	-4.04	-2.85	-2.92
	0.71	2.44	1.46	0.75	0.76	0.83	2.39	7.80	6.98	4.12	2.88	1.12
Race/ethnicity	1.47	3.92	1.72	-0.15	-0.58	-0.65	0.21	2.42	-0.25	-2.13	0.16	-0.51
	0.19	0.52	0.31	0.26	0.21	0.22	0.55	0.99	0.96	1.01	1.26	0.59
Labor	1.05	-1.82	0.08	1.11	2.56	4.24	-1.81	-1.16	-0.89	-9.61	3.98	1.02
	0.38	0.77	0.53	0.53	0.62	0.76	1.52	3.21	2.64	2.57	2.49	2.65
Intercept	-0.92	-0.18	0.33	3.22	2.19	-0.85	3.08	-2.26	5.67	18.39	0.20	2.83
	0.76	2.40	1.65	0.95	1.03	1.16	3.22	8.92	7.36	5.38	3.91	3.16

Source: Own construction based on 2011 Census.

Table 4. Decomposition of the gap in wellbeing (100-index) by race/ethnicity

	mean	10	25	50	75	90
White/mestizo	75.73	60.94	68.66	77.13	84.20	88.89
	0.09	0.13	0.12	0.11	0.08	0.05
Black/African	74.30	58.46	66.57	76.12	83.71	88.20
	0.29	0.60	0.49	0.44	0.28	0.25
Gap	1.43	2.49	2.09	1.01	0.49	0.69
	0.29	0.60	0.50	0.44	0.28	0.26
Explained	-0.09	0.25	-1.29	-0.52	0.64	0.26
	0.29	0.58	0.48	0.39	0.30	0.28
Region	0.24	0.14	-0.59	0.31	0.93	0.37
	0.17	0.45	0.37	0.26	0.20	0.20
Area	-0.30	-0.64	-0.50	-0.39	-0.14	-0.07
	0.07	0.17	0.11	0.09	0.04	0.03
Children	0.13	0.29	0.15	0.10	0.03	0.00
	0.06	0.15	0.08	0.05	0.02	0.02
Sex	0.06	-0.13	-0.05	0.26	0.19	0.19
	0.06	0.12	0.09	0.10	0.07	0.07
Age	0.00	0.03	0.01	0.02	-0.02	-0.02
	0.02	0.04	0.03	0.04	0.04	0.03
Education	-0.52	-0.21	-0.81	-0.82	-0.41	-0.23
	0.11	0.20	0.18	0.16	0.13	0.08
Immigration	0.29	0.67	0.48	0.20	0.08	-0.02
	0.08	0.18	0.14	0.10	0.07	0.08
Labor	0.01	0.08	0.02	-0.19	-0.02	0.03
	0.11	0.23	0.17	0.17	0.13	0.14
Unexplained	1.52	2.24	3.38	1.53	-0.15	0.44
	0.24	0.68	0.57	0.37	0.25	0.27
Region	0.12	0.19	0.80	0.20	-0.42	0.06
	0.19	0.65	0.37	0.30	0.28	0.22
Area	-0.30	-0.86	-0.65	-0.59	-0.13	-0.15
	0.14	0.46	0.26	0.21	0.11	0.08
Children	-0.02	0.70	-0.52	-0.25	-0.21	-0.21
	0.24	0.63	0.40	0.26	0.19	0.15
Sex	0.10	0.23	0.32	-0.17	-0.02	-0.17
	0.12	0.26	0.19	0.20	0.15	0.16
Age	0.12	-0.09	0.21	0.09	0.21	0.02
	0.10	0.24	0.21	0.16	0.11	0.09
Education	5.02	4.65	7.23	3.47	2.09	0.80
	2.02	6.54	3.85	2.68	1.29	0.94
Immigration	0.78	0.39	0.69	2.34	-0.56	-0.12
	0.55	1.21	1.16	0.94	0.85	1.12
Labor	0.64	-1.76	-0.17	1.81	0.49	-0.33
	0.64	1.77	1.18	1.24	0.97	0.76
Intercept	-4.94	-1.20	-4.52	-5.37	-1.60	0.54
	1.98	6.97	4.07	2.95	1.67	1.55

Source: Own construction based on 2011 Census.

6. Conclusions

Mulattoes and indigenous people show levels of wellbeing generally lower than those of whites/mestizos in Costa Rica. The gap for mulattoes is relatively constant along the distribution, while for indigenous people is the largest at the bottom. Most of the average differential in wellbeing in both groups is explained by their poorer endowments, especially their lower achieved education and poorer performance in the labor market, the higher rate of immigrants among mulattoes and the concentration of indigenous people in the poorest rural areas of the country. The factors that are more explicative for racial/ethnic differences among the poor diverge for both minorities. The higher number of children is important for both minorities, but

while lower attained education and higher concentration in rural areas are the most important to explain the gap for indigenous people, the higher rate of immigration explains the largest portion for mulattoes. However, it is important to note that the racial/ethnic gap amongst the poor tends to remain substantial after controlling for inter-group differences in characteristics. In fact, we have identified a number of factors that have a substantial different impact on the wellbeing of minorities and the majority. This is the case of the region of residence or the number of children but, in the case of indigenous people, also labor market or immigration status. Similar patterns were found for immigrant from Nicaragua and Panama compared with those born in Costa Rica. Nicaraguans stand out for showing large and significant unexplained effects of education and labor market variables at the bottom of the distribution, indicative of their struggle to be accepted in the host country.

We have shown that blacks also have a higher rate of immigrants, are overrepresented in the poor Caribbean coast, and have more children than whites/mestizos. However, compared with the other minorities, the impact on wellbeing is smaller and, unlike them, blacks have a higher prevalence, compared with the majority, in some characteristics associated with higher wellbeing, such as higher achieved education, or higher proportion living in urban areas. Consequently, the gap should be reversed (blacks having better wellbeing) if they had the same characteristics as whites/mestizos. The lower advantage that some blacks take of their higher education, compared with whites/mestizos, is also an important aspect for this group.

All this indicates the existence of a clear divide in wellbeing along racial/ethnic/national lines among the poor in a country that usually shows the lowest levels of poverty and inequality in the region. A higher visibility of minorities in all type of statistics would be important in order to investigate in more depth the nature of these inequalities.

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Appendix

Table A1. Summary variables used to construct the wellbeing composite index

		MCA (1 st dimension)		Distribution (%)						
		S_j^q	W_j^q	Black	Mulatto	White/ Mestizo	Indig.	Native	Nicaragua	Panama
Type of dwelling	independent house	0.02	7.28	91.8	94.0	94.7	90.1	95.2	89.7	92.0
	independent house in condominium	-3.04	9.44	1.2	0.7	1.4	0.3	1.2	1.0	1.1
	apartments building	-1.04	8.03	3.8	2.7	2.5	1.6	2.3	3.7	4.2
	apartment building in condominium	-2.58	9.11	0.8	0.3	0.4	0.2	0.3	0.3	0.6
	indigenous traditional	10.36	0.00	0.0	0.0	0.0	5.9	0.2	0.0	1.0
	room in bunkhouse	2.31	5.67	0.8	0.5	0.2	0.3	0.1	1.9	0.2
	Shack	5.26	3.59	1.5	1.7	0.6	1.3	0.6	3.1	0.8
	Other	0.93	6.64	0.2	0.1	0.1	0.2	0.1	0.3	0.1
Ownership of dwelling	Owned, already paid	-0.10	2.50	55.9	53.4	60.3	67.2	62.6	28.7	39.2
	owned, still paying	-1.49	3.48	11.0	9.3	11.9	5.5	11.7	5.5	5.8
	Rented	0.09	2.37	22.8	23.5	18.3	11.0	16.4	43.6	14.7
	provided by employer	2.13	0.93	4.3	4.3	2.9	8.6	2.6	10.3	32.3
	free by other reason	1.77	1.18	3.4	5.2	4.5	4.9	4.6	4.4	6.0
	Squatter	3.45	0.00	2.2	3.4	1.3	0.7	1.2	6.8	0.7
	Other	1.44	1.41	0.5	0.8	0.7	2.1	0.7	0.6	1.3
Predominant wall material	block or brick	-0.98	8.69	58.4	49.6	59.2	31.8	58.4	40.4	38.6
	baseboard (cement-wood/fibrocement)	1.07	7.24	8.6	10.3	10.7	11.1	10.7	11.7	12.7
	wood	2.36	6.34	14.6	16.6	12.5	30.2	12.6	25.2	29.6
	prefabricated or tile	0.14	7.90	12.4	14.8	12.2	17.5	12.9	9.3	10.7
	fibrolit, ricalit (fibrocement sheet)	0.96	7.32	3.6	4.7	3.5	2.9	3.5	5.7	3.6
	natural fibers	11.36	0.00	0.0	0.0	0.0	3.9	0.1	0.0	0.5
	waste material	6.47	3.44	0.2	0.3	0.2	0.3	0.1	0.9	0.1
	other (zinc, adobe)	3.07	5.83	2.1	3.8	1.7	2.4	1.6	6.8	4.1
Predominant roof material	zinc	0.01	7.29	97.6	97.9	97.9	92.5	97.9	97.7	96.9
	fibrocement	-0.97	7.98	2.0	1.5	1.4	0.8	1.3	1.3	0.8
	natural material	10.36	0.00	0.0	0.0	0.0	5.9	0.2	0.0	1.0
	waste material	8.06	1.62	0.1	0.1	0.1	0.2	0.1	0.3	0.1
	other	-2.22	8.86	0.4	0.4	0.7	0.5	0.6	0.7	1.2
Interior ceiling	yes	-0.98	2.05	65.2	55.1	68.7	39.1	67.6	44.8	49.6
	no	1.94	0.00	34.8	44.9	31.3	60.9	32.4	55.2	50.4
Predominant material in floor	ceramic, terrazzo ...	-1.09	8.82	60.7	51.2	65.8	31.5	64.9	36.9	36.0
	cement	1.60	6.93	26.5	37.0	25.5	37.1	26.1	43.7	38.2
	wood	2.07	6.60	10.4	8.9	6.9	20.1	7.1	13.0	21.7
	natural material	11.44	0.00	0.0	0.0	0.0	1.0	0.0	0.0	0.1
	other material	-0.11	8.13	0.3	0.3	0.3	0.2	0.3	0.5	0.2
	none (dirt floor)	5.64	4.08	2.1	2.7	1.4	10.1	1.5	5.8	3.9
Condition of walls	poor	3.42	0.00	10.7	12.8	8.6	18.6	8.7	19.0	18.4
	fair	1.27	1.52	30.6	36.9	28.2	35.4	28.5	43.3	37.0
	good	-1.12	3.19	58.7	50.3	63.2	46.0	62.8	37.7	44.6
Condition of roof	poor	2.90	0.00	10.9	13.3	9.2	15.8	9.4	17.7	15.4
	fair	1.21	1.19	30.6	33.7	27.1	34.1	27.4	39.7	37.3
	good	-1.00	2.75	58.6	53.0	63.7	50.2	63.2	42.5	47.3
Condition of floor	poor	3.41	0.00	9.6	12.7	8.6	19.2	8.7	18.7	16.9

	fair	1.47	1.36	27.7	32.9	24.3	33.4	24.6	39.8	38.7
	good	-1.05	3.14	62.6	54.4	67.1	47.3	66.7	41.6	44.5
People/Bedrooms	0-1	-0.77	2.43	30.5	19.2	26.7	22.3	26.2	15.7	21.3
	1-2	-0.33	2.13	43.8	50.7	53.7	39.0	53.9	40.8	35.8
	2-3	1.19	1.05	13.4	17.3	12.6	16.8	12.7	21.8	19.6
	>3	2.69	0.00	12.3	12.9	7.1	22.0	7.2	21.7	23.4
People/other rooms	0-1	-0.92	1.75	25.8	15.7	23.7	17.6	23.1	12.6	19.4
	1-2	-0.35	1.35	36.3	37.2	40.6	28.5	40.6	30.5	27.2
	2-3	0.42	0.80	18.2	23.3	20.4	20.8	20.5	24.4	19.0
	>3	1.56	0.00	19.7	23.7	15.4	33.0	15.8	32.4	34.5
Water Source (pipe)	rural or communal	0.73	1.81	16.8	22.2	24.4	28.0	24.6	24.1	20.2
	municipal	-0.76	2.86	5.6	11.5	16.4	5.5	16.0	9.9	5.8
	public	-0.41	2.62	66.6	53.6	47.9	32.7	47.9	50.1	43.0
	private	-1.12	3.11	3.9	4.7	5.0	3.0	4.7	4.8	6.6
	well	2.40	0.63	5.7	5.5	3.7	7.4	3.7	8.4	14.0
	river or stream	3.13	0.12	0.9	1.7	2.0	22.2	2.6	1.6	8.3
	other source	3.30	0.00	0.5	0.7	0.5	1.2	0.5	1.0	2.0
Piped water inside	yes	-0.11	3.29	97.3	96.7	98.1	81.9	97.8	94.3	87.8
	no	4.56	0.00	2.7	3.3	1.9	18.1	2.2	5.7	12.2
Sewage	public sewer	-1.14	4.36	30.0	19.9	19.8	10.1	19.3	18.9	14.3
	septic tank	0.02	3.54	65.0	72.9	76.4	59.7	76.5	67.7	56.7
	direct to ditch, river...	1.94	2.19	1.1	2.2	1.0	1.0	0.9	3.7	1.4
	pit or latrine	5.05	0.00	3.4	4.4	2.5	28.3	2.9	9.2	25.8
	no toilet	4.71	0.24	0.5	0.6	0.3	1.0	0.4	0.5	1.8
Source of electric lighting	public	-0.19	4.63	91.0	88.7	88.0	66.3	87.5	82.7	81.1
	cooperative	0.74	3.98	7.4	9.7	11.2	12.0	11.2	14.6	7.0
	solar panel	4.22	1.53	0.1	0.1	0.1	2.0	0.1	0.1	0.7
	other source	3.70	1.89	0.2	0.3	0.1	0.7	0.1	0.4	0.8
	no electricity	6.39	0.00	1.3	1.2	0.6	19.1	1.0	2.3	10.4
Cooking fuel	electricity	-0.66	2.65	47.9	48.9	54.8	29.2	54.4	40.3	23.1
	gas	0.25	2.01	44.9	42.6	37.7	30.6	37.3	47.1	51.7
	firewood, charcoal	3.10	0.00	6.6	8.1	7.1	39.3	7.9	12.0	24.2
	other	2.76	0.24	0.2	0.1	0.1	0.4	0.1	0.1	0.3
	none	1.51	1.12	0.4	0.3	0.3	0.4	0.3	0.6	0.7
Trash disposal	collected by sanitation service	-0.47	3.74	84.2	82.7	84.1	45.3	83.1	77.5	55.5
	Buried	2.24	1.83	3.7	4.9	4.9	20.8	5.3	6.2	17.3
	burned	2.32	1.78	10.8	11.3	9.8	27.0	10.3	14.7	21.6
	thrown away on vacant lots	4.85	0.00	0.2	0.2	0.2	5.4	0.4	0.6	3.2
	thrown away on river ...	3.73	0.79	0.0	0.1	0.1	0.1	0.1	0.2	0.2
	Other	0.59	2.99	1.0	0.8	0.9	1.4	0.9	0.8	2.3
Selective collection of plastic, glass, aluminum	yes	-0.38	0.46	36.3	38.3	42.7	41.5	42.3	36.6	36.9
	no	0.28	0.00	63.7	61.7	57.3	58.5	57.7	63.4	63.1
Selective collection of paper	yes	-0.47	0.52	32.2	32.9	36.6	35.4	36.1	31.8	32.9
	no	0.27	0.00	67.8	67.1	63.4	64.6	63.9	68.2	67.1
Selective collection of organic waste	yes	-0.02	0.02	35.9	37.8	40.3	41.8	40.4	34.3	34.9
	no	0.01	0.00	64.1	62.2	59.7	58.2	59.6	65.7	65.1
Radio, sound system	yes	-0.31	1.08	78.9	76.0	80.4	68.9	80.2	71.0	70.8
	no	1.22	0.00	21.1	24.0	19.6	31.1	19.8	29.0	29.2
Landline phone	yes	-0.92	1.55	56.7	47.6	60.2	33.6	60.3	28.1	32.0

	no	1.29	0.00	43.3	52.4	39.8	66.4	39.7	71.9	68.0
TV (plasma, LCD, LED)	yes	-1.80	1.59	19.6	14.9	21.2	10.2	20.5	11.3	14.9
	no	0.46	0.00	80.4	85.1	78.8	89.8	79.5	88.7	85.1
TV (conventional)	yes	-0.10	0.78	90.0	90.7	91.9	67.4	91.6	88.1	72.4
	No	1.01	0.00	10.0	9.3	8.1	32.6	8.4	11.9	27.6
TV (cable/satellite)	Yes	-1.26	1.63	51.1	40.5	47.1	23.9	46.2	32.1	30.2
	No	1.06	0.00	48.9	59.5	52.9	76.1	53.8	67.9	69.8
Water heater	Yes	-2.08	1.64	13.0	8.5	11.3	4.7	10.6	6.3	8.9
	No	0.26	0.00	87.0	91.5	88.7	95.3	89.4	93.7	91.1
Water tank	Yes	-0.86	0.70	13.5	10.5	13.0	10.0	12.6	10.2	12.3
	no	0.13	0.00	86.5	89.5	87.0	90.0	87.4	89.8	87.7
Desktop PC	yes	-1.47	1.60	31.6	27.1	36.9	16.8	36.4	16.5	18.9
	no	0.80	0.00	68.4	72.9	63.1	83.2	63.6	83.5	81.1
Laptop	yes	-1.81	1.74	25.6	18.0	28.2	14.0	27.3	10.6	18.5
	no	0.66	0.00	74.4	82.0	71.8	86.0	72.7	89.4	81.5
Internet	yes	-1.83	1.95	34.0	24.1	35.6	15.9	34.6	13.5	22.3
	no	0.94	0.00	66.0	75.9	64.4	84.1	65.4	86.5	77.7
Car (private use)	yes	-1.44	1.64	27.1	27.0	40.3	18.8	39.6	14.2	22.3
	no	0.89	0.00	72.9	73.0	59.7	81.2	60.4	85.8	77.7
Motorcycle (private use)	yes	-0.36	0.29	8.1	11.4	12.4	7.2	12.6	6.9	4.3
	no	0.05	0.00	91.9	88.6	87.6	92.8	87.4	93.1	95.7
Adults/cellphone lines	none	2.11	0.00	11.3	9.7	8.7	35.8	9.4	13.0	31.0
	0-1	-0.77	2.03	45.8	45.4	48.6	23.7	48.2	35.2	29.2
	1-2	0.13	1.39	32.5	31.7	30.6	24.6	30.4	35.0	24.4
	2-3	0.81	0.92	6.1	7.6	7.3	8.6	7.3	9.6	6.1
	>3	1.31	0.56	4.3	5.6	4.7	7.2	4.7	7.2	9.3
Condition of dwelling	poor	3.58	0.00	10.0	11.9	7.9	17.6	8.0	17.8	17.1
	fair	1.40	1.53	31.1	36.9	28.4	37.0	28.8	43.5	40.1
	good	-1.16	3.34	59.0	51.2	63.7	45.4	63.2	38.7	42.8
Public insurance (householder)	yes	-0.20	1.05	82.7	81.9	87.0	84.6	87.5	71.6	64.4
	no	1.29	0.00	17.3	18.1	13.0	15.4	12.5	28.4	35.6

Source: Own construction based on 2011 Census.

Table A2. Sample composition (%) by race/ethnicity and country of origin

	White/mestizo	Black	Mulatto	Indigenous	Native-born	Nicaragua	Panama	All
Location								
Great Metropolitan Area	52.5	33.5	51.2	23.0	50.6	54.1	25.2	51.3
Rest of Central Region	11.8	2.8	7.0	10.1	11.7	5.8	8.3	11.2
Chorotega	7.1	7.1	8.0	9.9	7.6	7.6	0.9	7.6
Pacific Central	5.5	5.0	7.8	2.9	5.8	4.6	1.5	5.7
Brunca	7.7	3.3	5.7	24.4	8.2	1.4	35.3	7.7
Atlantic Huetar	8.0	42.5	11.5	25.5	9.0	9.5	27.7	9.0
Northern Huetar	7.5	6.0	8.8	4.2	7.1	16.9	1.1	7.6
Urban	73.5	80.1	74.5	41.2	72.7	70.4	49.5	72.7
Rural	26.5	19.9	25.5	58.8	27.3	29.6	50.6	27.3
Demographics								
Male head	73.5	62.8	71.0	75.2	73.0	75.2	83.2	73.2
Female head	26.5	37.3	29.0	24.8	27.0	24.8	16.8	26.8
Head aged <35	21.5	23.2	27.7	25.5	21.4	33.4	33.5	22.1
Head aged 35-50	41.3	38.5	42.5	38.0	41.0	44.4	38.1	41.3
Head aged 51-64	24.4	26.0	20.6	22.2	24.7	15.2	18.9	24.1
Head aged 65+	12.8	12.3	9.2	14.3	12.9	6.9	9.5	12.6
N Children	1.3	1.4	1.5	1.9	1.29	1.60	2.54	1.3
Education								
Head: less than Primary	4.0	5.2	5.6	17.3	4.0	12.0	19.3	4.5
Head: primary	47.7	36.3	52.1	52.3	48.7	50.5	42.4	48.1
Head: high School	28.4	34.6	30.7	19.2	28.3	29.2	20.3	28.3
Head: college	20.0	23.8	11.6	11.2	19.1	8.3	18.0	19.1
% Adults with primary	39.6	31.3	44.6	48.3	40.4	45.6	37.4	40.1
% Adults with secondary	35.7	41.2	38.6	26.0	35.6	36.9	26.8	35.7
% Adults with college	21.5	23.4	12.3	12.0	20.7	8.3	17.9	20.5
Immigration								
Head born in same canton	46.6	45.8	39.2	56.1				46.3
Head born in another canton	42.4	33.7	38.2	27.9				41.2
Head born in Nicaragua	8.4	14.1	20.4	6.8				9.6
Head born in Panama	0.2	2.0	0.5	7.6				0.4
Head born in rest of CA	1.1	2.5	1.2	0.9				1.2
Head born in US & Canada	0.4	0.4	0.2	0.2				0.4
Head born in another country	0.9	1.4	0.4	0.5				1.0
Living same canton 5 years ago	88.3	87.1	86.4	89.0				88.1
Living in another canton 5 years ago	9.9	9.3	11.3	7.8				10.0
Living in another country 5 years ago	1.8	3.6	2.3	3.2				1.9
Household sends remittances	3.7	6.6	6.8	3.1				4.0
Household does not send remittances	96.3	93.4	93.2	96.9				96.1
Race/ethnicity								
Black or mulatto					7.0	17.2	12.5	7.7
White or mestizo					84.8	72.1	40.5	83.7
Indigenous					2.3	2.2	44.0	2.4
Other race/ethnicity					5.9	8.5	3.1	6.1
Labor (head)								
Unemployed	1.4	2.6	2.0	1.9	1.5	2.0	1.1	1.5
Not in the labor force	25.3	29.8	23.7	32.2	26.3	16.6	20.4	25.6
Legislators, senior officials & managers	1.4	1.4	0.7	0.4	1.3	0.5	1.7	1.3
Professionals	8.5	9.5	4.5	4.3	8.0	2.4	7.2	7.9
Technicians & associate professionals	7.2	5.1	5.6	3.6	7.1	3.4	5.7	6.9
Clerks	3.3	4.7	3.4	1.6	3.3	1.6	2.0	3.2
Service workers, shop & market sales	13.8	13.8	15.3	9.3	13.6	15.2	9.7	13.8
Skilled agricultural and fishery workers	4.8	3.0	3.8	13.8	5.2	3.3	5.8	5.0
Crafts & related trades workers	10.6	8.3	12.5	5.5	10.2	16.6	4.6	10.6
Plant & machine operators/assemblers	8.3	5.3	8.4	3.8	8.4	5.5	2.7	8.1
Elementary occupations	15.5	16.6	20.4	23.7	15.1	33.0	39.2	16.1
Industry 1-9	13.0	11.5	13.3	30.9	13.1	20.7	42.0	13.5
Industry 10-19	4.9	3.6	5.0	2.7	4.8	5.5	2.0	4.8
Industry 20-29	2.7	1.6	2.9	0.9	2.6	2.7	1.1	2.6
Industry 30-39	3.6	2.5	3.1	2.1	3.6	2.9	1.9	3.5
Industry 40-49	22.3	15.2	24.1	11.7	21.8	25.6	13.9	22.1
Industry 50-59	4.2	8.6	5.5	2.8	4.2	6.0	2.3	4.4
Industry 60-69	3.8	2.7	2.5	1.5	3.6	1.9	1.9	3.6
Industry 70-79	1.7	1.7	1.3	0.6	1.6	1.2	1.5	1.7
Industry 80-89	12.3	14.1	11.3	8.6	12.4	7.8	8.4	12.1
Industry 90-99	4.8	6.2	5.3	4.2	4.6	7.2	3.6	4.8
Labor (household)								
Household receives remittances	3.1	9.0	3.3	2.9	2.8	4.0	6.3	3.2
Household does not receive remittances	96.9	91.1	96.7	97.1	97.2	96.0	93.7	96.8
% Adults Employed	54.0	52.0	54.0	46.4	53.0	59.5	49.9	53.6
% Adults unemployed	1.7	2.8	2.3	1.8	1.8	2.2	1.2	1.8