



# SAME JOB, DIFFERENT WAGE FOR MIGRANTS?

Nicaraguan migrants and living wage  
in Costa Rica

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• Koen Voorend • Richard Anker • Martha Anker

## ABSTRACT

This paper investigates the argument that the cost of a decent standard of living is lower for migrants than for nationals when the former have family members left behind in a low-wage, low-cost country. The wage differential between the host country and the country of origin is not only a motivating factor behind migration, but also partly a reflection of differences in the cost of living. This paper therefore analyses whether, following this rationale, a lower wage for migrant workers can be in a sense justified if one ignores ethical concerns around the need for “equal pay for equal work” argument. We analyze this argument for Nicaraguan migrants in rural Costa Rica based on two existing living wage studies which found that the cost of a

basic but decent living standard is 2.5 times higher in the receiving country Costa Rica. We find that the empirical foundation for justifying a lower wage for migrants based on migrants having lower living costs because their family members left behind have lower living costs is not confirmed. This unexpected result is due to two main factors: (i) migrants have double costs for some expenditures (like housing) as well as considerable migration-related costs such as fees, increased phone costs, and costs for transfers, and (ii) the contribution to family income of a spouse is considerably lower for migrants because their spouse is earning in a low wage country.

**KEYWORDS:** Living wage, migration, immigrant workers, agricultural labor markets, discrimination, living costs

**JEL CODES:** D1, D10, J3, J43, J6, J7, J8, O1, O15

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# 1. INTRODUCTION

Employers often make the argument that migrants, especially international migrants, do not need as high a salary as nationals because their families left behind have lower living expenses. This argument is supported by the fact that migration processes are predicated on differentials in wages between origin and receiving countries and locations.

This paper investigates this argument empirically for Nicaraguan migrants to Costa Rica using data on living costs in rural Costa Rica and rural Nicaragua. Nicaraguan migration to Costa Rica provides an ideal setting for this analysis. Migration flows from Nicaragua to Costa Rica constitute one of Latin America's most important and longstanding South-South migration systems, and Costa Rica is the country in the continent with the highest percentage of immigrants in the total population (UN, 2019), with three of four migrants coming from Nicaragua (INEC, 2011; Voorend, 2019). Nicaraguan migrants in Costa Rica are mainly employed in agriculture, construction, domestic work, and informal commercial activities (INEC, 2020).

Nicaraguan migrants in Costa Rica often work in secondary labor markets, with lower wages, higher informality and therefore less protection. Voorend (2019) shows that migrants have lower education levels, tend to work more hours per week than nationals, and have lower income. Average self-reported income was around USD 300 in his study, versus an unskilled worker's minimum wage of around USD 550. Also, about 40%-50% of migrants have no social security against only 15% for nationals (Voorend, 2019), and while informal employment was high in general in 2020, it was considerably higher among migrants (almost 60%) than nationals (45%)

(Voorend, Alvarado and Oviedo, forthcoming). This implies indecent working conditions and wages for migrants in Costa Rica.

Investigating living costs in Nicaragua and living costs of Nicaragua migrants in Costa Rica is possible, because the Global Living Wage Coalition has published living wage benchmark studies for the same year that indicate cost for a basic but decent living standard in rural Nicaragua and rural Costa Rica based on the same methodology (Anker and Anker, 2017). The Costa Rica study (Voorend, Anker and Anker, 2018) was done in May 2017 for the rural Guápiles, Guácimo, Siquirres, and Matina regions of the Limón province and the Puerto Viejo de Sarapiquí region in the Heredia Province. These regions are extremely important for Costa Rica's banana production, where many Nicaraguan migrants find jobs. This study found that the cost for a basic but decent living standard for a reference family of 4 members was CRC 585,085 (or US\$ 1,045) and the net living wage was CRC 375,055 (USD 670). In Nicaragua, the GLWC study (Andersen and Hernani-Limarino, 2019) was done in October 2017 for the Northwest region, a region known for its high incidence of people migrating to other countries, mainly Costa Rica. It estimated the cost for a basic but decent standard of living for a reference family of 4 members was C\$ 12,523 (or US\$ 412) and the net living wage was C\$ 7,730 (USD 254). Therefore, the ratio of living costs for basic decent living for a family of 4 persons (2 adults and 2 children) in Costa Rica is around 2.5 times that in Nicaragua. But does this large difference give substance to the argument that the cost of a decent standard of living is much lower for migrant workers than for national workers in Costa Rica? This paper investigates this issue empirically.

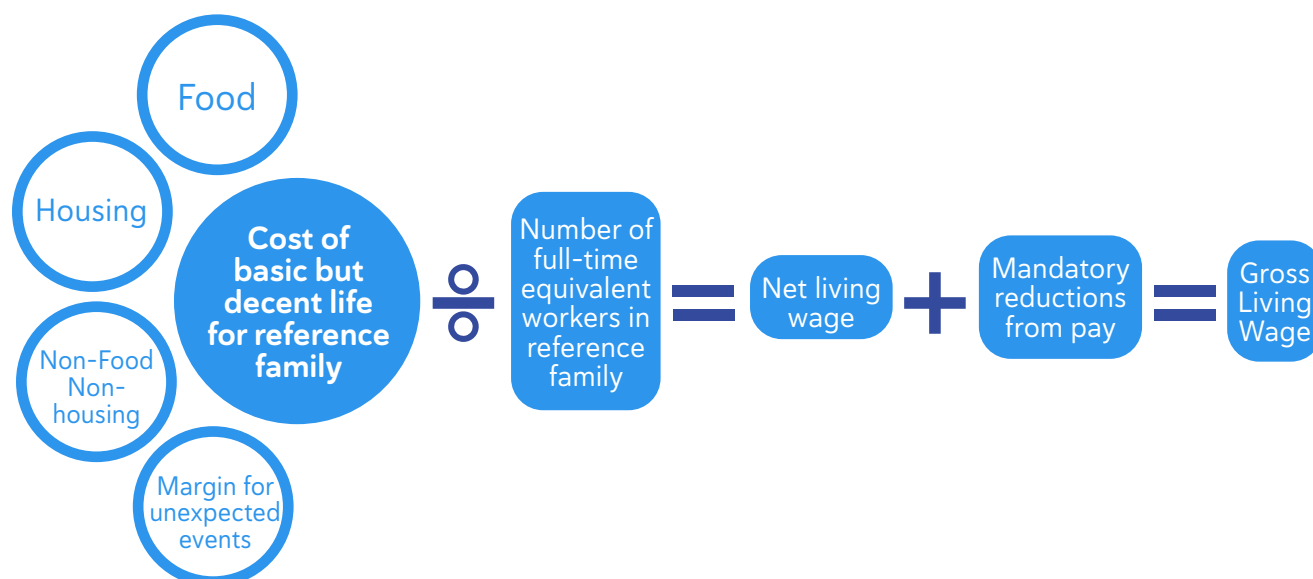


## 2. DESCRIPTION OF ANKER METHODOLOGY

Living wages and living costs for rural Nicaragua and rural Costa Rica were estimated in 2017 in a consistent and comparable way based on the Anker Methodology (Anker and Anker, 2017) which is widely accepted and used. To estimate living wages, the costs of a basic but decent quality of life in a specific place is estimated using a judicious mix of primary and secondary data. This basic but decent quality of life requires a nutritious low-cost diet as regards calories, macro nutrients (proteins, fats, carbohydrates), fruits and vegetables, and sugar; healthy housing for a decent basic house and utilities; funds to cover other costs such as health care, education, transport, clothing and footwear,

household furnishings, communications, recreation and cultural activities and participation in social life, and miscellaneous expenses such as personal care, and a small margin as a buffer for emergencies and unexpected events. This is estimated for a typical size family, which in both Nicaragua and Costa Rica was 4 people: 2 adults and 2 children. These costs are divided by the number of full-time equivalent workers per reference family, resulting in the net living wage required. Then, mandatory payroll deductions and income tax the workers must pay on the living wage in the specific location of interest are included to get to the gross living wage needing to be received.

**Figure 1.** Components of a net and gross living wage in the Anker methodology



**Source:** Authors based on Anker and Anker (2017)

To estimate costs for each component of needs, such as food, housing, and utilities, secondary statistical data from household expenditure surveys are combined with primary data on food prices and housing costs collected in several locations in both countries. For **food expenses**, usually the largest expense for a worker and his or her family in developing countries, an appropriate model diet is constructed

based on FAO and WHO nutritional guidelines and local food preferences. The cost of this model diet is, then, estimated using local food prices collected in local markets where workers typically shop.

**Housing costs** are usually the second largest expense for a worker and family. One of the Anker method's novelties and strengths is that housing costs

are estimated separately, and not considered along with other non-food expenses ala Engel's Law. First, a minimum standard for healthy housing is set based on international and national standards, and local conditions. The cost of renting a house that meets these basic standards is estimated based on visits to a range of acceptable and unacceptable rental homes in the study location (to determine the typical cost of a basic but acceptable and decent rental home in the location).<sup>1</sup>

For **non-food non-housing (NFNH) costs**, the Anker methodology relies on secondary data from a recent household expenditure survey to estimate the cost of other essential expenses. While the estimate of both food and housing costs are based on normative standards, it would be too difficult and time consuming to base the cost of all other expenses on normative standards, because this would require listing and obtaining agreement on each and every item needed by a family as regards quantities and qualities. Therefore, NFNH costs are estimated by multiplying the ratio of non-food and non-housing expenses to food expenses found in a recent household expenditure survey by the cost of the model diet. This is a simple, quick, and practical way to estimate the cost of other essential expenses and is like the typical approach used by poverty line methodologies to estimate all non-food costs.<sup>2</sup>

Health care and education are considered as human rights in the Anker methodology, and transport is often the third largest expense for families. For this reason, they are given special attention to make sure that enough is included in the living wage estimate for education of children, health care, and transport. That is, **post checks** are carried out in the field to

make sure that sufficient funds are provided for these, to make sure that possible poverty behavior found in household expenditure statistics is not replicated. First, during fieldwork, information is collected on the local cost of education, health care, and transport. Second, during the data analysis, the costs implicitly included for education, health care, and transport in the preliminary estimate of the NFNH costs based on secondary data are compared to the costs found in the fieldwork and amounts for these are increased when necessary. This system of post checks further increases the normative basis of the Anker living wage estimate.

Finally, a small margin is added to the cost of food, housing and other essential expenses to allow for unforeseen events. This is included in the Anker methodology to ensure that workers earning a living wage are not easily plunged into poverty by unforeseen events such as accident or illness.

The costs of this basic, but decent standard of living is considered to be earned by the typical number of **full-time workers** in a family. The estimate of the number of workers per family in the Anker methodology is always somewhere between 1 and 2.<sup>3</sup> It is based on current conditions in a country as regards male and female labor force participation rates, unemployment rates, and part-time employment rates.

To obtain the **net living wage**, the cost of a decent living for a reference household is divided by the number of full-time equivalent workers. This is the amount of disposable income or net pay that a worker needs to afford decency. However, workers in many countries (even those with low pay) have mandatory payroll deductions (e.g. social security

<sup>1</sup> In locations where rental markets are not well developed, such as in many rural areas, alternative methods of estimation are provided based on the user cost approach.

<sup>2</sup> There are some major differences. First, the component 'other essential expenses' in the Anker methodology is much smaller than in most other methodologies, because it does not include housing. This increases the extent to which the living wage estimate is based on normative standards. This also increases cross-country comparability because national statistical offices differ in how they measure housing expenditure, with many countries totally ignoring the cost or value of housing owner occupied housing. Second, the Anker methodology closely scrutinizes how household expenditure data used to estimate 'other essential needs' are classified and measured and makes adjustments whenever necessary. This is important because there are often major differences in how countries measure and classify household expenditure data, and these can affect the estimate other essential needs.

<sup>3</sup> Most other living wage estimates assume either 1 or 2 workers per family. However, neither assumption is realistic in the 21st century. First, many women are in the labor force all over the world, so the assumption of one (usually male) breadwinner per family does not reflect reality. This means that an assumption of 1 worker per family is not realistic. Second, not all adult family members work full time – some are unable to find work, some need or want to stay home for various reasons, and some work part-time. This means that an assumption of two full-time workers per family is not realistic.

tax, contributions to national health systems, union fees) and sometimes must pay income taxes. Therefore, for workers to have enough net pay (after deductions), typical mandatory deductions need to be added to the net living wage estimate to get a **gross living wage** estimate.

Table 1 indicates results for the Costa Rica and Nicaragua studies which were both done in 2017. Living costs are around 2.5 times higher in rural Costa Rica. Food and housing costs in rural Costa Rica are around twice those in rural Nicaragua while NFNH costs are almost 4 times higher in rural Costa Rica.

**Table 1.** Results from the original Living Wage benchmark reports for Costa Rica and Nicaragua, 2017, in USD

Date of the benchmark study	Nicaragua October 2017	Costa Rica May 2017
<b>General data</b>		
Reference family size	4	4
Number of full-time workdays per month	26	26
Number of hours in a full-time work week	48	48
Number. of full-time equivalent workers per family	1.62	1.56
NFNH/Food ratio	0.66	1.354
<b>Living costs per month by expenditure item</b>	<b>in USD</b>	<b>in USD</b>
<b>Food per month for reference family</b>	177	345
<i>Food cost per person per day</i>	1.45	x
<b>Housing costs per month</b>	99	189
<i>Rent</i>	75	134
<i>Utility cost</i>	24	55
<b>Non-Food Non-Housing per month</b>	117	460
<b>Additional amount (5%) for sustainability and emergencies</b>	20	50
<b>Total living costs per month for basic but decent living standard for reference family</b>	412	1.045
<b>Net living wage</b>	254	618
<b>Mandatory deductions from pay</b>	10	71
<b>Gross living wage (assuming 13th month is paid)</b>	265	689

**Source:** Authors based on Andersen & Hernani-Limarino (2019) and Voorend, Anker and Anker (2018).

### 3. ETHICAL CONCERNS ABOUT A SEPARATE LIVING WAGE FOR MIGRANTS

Producers in immigrant receiving countries, such as Costa Rica often make the argument that a separate (and lower) living wage for migrants is justified. The argument is that migrants migrate alone from a low-cost low-wage country to a higher-cost higher-wage country, with the wage differential being a motivating factor behind migration, and partly a reflection of differences in the cost of living. Therefore, in this rationale, a wage for migrant workers can justifiably be lower than for a national worker because the costs of a decent standard of living are lower for the former (where other family members live) than for the latter.

There are, however, several ethical and other concerns that make this argument problematic. First, separate living wages for Costa Ricans and Nicaraguans would violate the bedrock principle of equal pay for work of equal value and probably lead to discrimination based on nationality - and in the end, lead to a race to the bottom toward the lower living wage. Secondly, we feel that all workers in Costa Rica (regardless of their nationality) should be able to afford a living standard considered decent for Costa Rica. Estimating a living wage based mainly on living costs and standards considered acceptable in Nicaragua that are lower than in Costa Rica because Nicaragua is much poorer - - would mean that Costa Rican workers would not be able to earn a living wage in their own country.

The decision to base a living wage for rural Costa Rica exclusively on Costa Rican conditions and costs is generalizable to other countries (see GLWC living wage report by Anker and Anker (2013) for Dominican Republic, for example). It means that it would not be appropriate for a living wage for agriculture in any country (say United States for example) to be based on living standards and living costs in another country (say Mexico). This has worldwide implications because many countries have migrant workers.

While there are reasons for rejecting the argument that living wage should be lower for migrants as discussed above, it is true that there are significant differences in the costs associated with a decent standard of living in receiving and sending countries (see table 1). In fact, wage differences - as an imperfect reflection of differences in living costs - are one of the factors that drive migration in the first place. So, there would seem to be truth to the argument that the costs of a decent living for a migrant worker with family left behind in the home country are lower than for a national worker with a family. As an academic exercise, this paper critically looks at this argument by analyzing in detail what are the costs of a migrant worker and her or his family, and to what extent these are lower than for a national worker.

### 4. MIGRATION OVERSIMPLIFIED: TWO SCENARIOS FOR ESTIMATING A MIGRANT LIVING WAGE

Few phenomena are as diverse as international migration. For the expository exercise of estimating migrants' and nationals' costs of decent living in this paper, it is necessary to work with simplified migration scenarios. Although the scenarios presented below are oversimplifications of the complex migration

realities, they are a useful basis for investigating the issue of how a living wage for migrants differs from that of nationals if the assumptions in these scenarios are accepted.

There is relatively little data available on the migration



population in Costa Rica, their migration process, and their family situations on both sides of the border. National surveys typically under register migrants, and the data collected captures information on their situation in Costa Rica, but nothing on when, how, why and with whom they migrated, and who they leave behind in Nicaragua. The little information available confirms the heterogeneity of migration experiences. A joint IOM-ILO study (2011), based on a convenience sample of 300 Nicaraguan migrants, suggests that only 25% of migrants have a partner in the country of origin, although it appears more common for agricultural workers (33%) than in others. Also, it was more common among the interviewed men (31%) than the interviewed women (12%). Voorend (2019), based on a probability sample of 393 Nicaraguan migrants, shows, however, that once in Costa Rica, many migrants form families in their new host country and about 70% of Nicaraguan migrants in Costa Rica in this study were either married or live together with a partner in Costa Rica.

For our analysis of what a separate migrant living wage would be, the scenarios of family members living in Nicaragua is more appropriate. If a migrant worker lives in Costa Rica with a spouse and children, their situation does not differ from that of a national worker, and therefore the separate living wage argument would not be relevant. In fact, the only scenarios in which this discussion could be considered is if part of a migrant family stays in the country of origin, where living costs are substantially lower. The more members of the migrant worker's family who live in the country of destination, the less relevant the separate migrant living wage discussion becomes.

Therefore, we decided to analyze two scenarios in which a migrant worker leaves behind part of his or her family. Although they are not representative for most Nicaraguan migrants, who often migrate when they are young and establish a family in Costa Rica, we feel that it is nonetheless valuable to investigate this issue using Costa Rica because the phenomenon of international migrants with family left behind is common in many other countries. More importantly,

this is the underlying assumption of employers for arguing for lower migrant living wages compared to nationals. It is precisely the fact that part of the family is living in a country with lower living costs that seems to be what producers have in mind when they argue for lower wages for migrants.

Scenario 1 is that of a migrant worker who leaves behind his or her spouse and children, to whom s/he sends remittances monthly. In this scenario, the spouse in Nicaragua also contributes to household income to cover part of the living costs. This seems to be a more common scenario among Nicaraguan male migrant than Nicaragua female migrants. In this paper, we called this the “migrant worker with spouse” scenario, applicable to either a male or female migrant worker who leaves behind a spouse and children. We assume that the family has two children since this the most typical number of children per woman in Nicaragua (Andersen & Hernani-Limarino, 2019).

Scenario 2 is a migrant worker with children but without a spouse or partner who migrates to Costa Rica and leaves behind two children under the care of grandparents in Nicaragua. In this scenario, there is no other person in Nicaragua who contributes to the household income to cover the costs of a decent standard of living for the family in Nicaragua. This scenario is the “migrant worker, no spouse” scenario.

The two scenarios used in this study could be considered as extremes. The “migrant worker with spouse” scenario could be expected to yield a living wage substantially lower than the living wage for a Costa Rican national, because while the cost of a decent living for three family members living in Nicaragua is lower, the family has two adults who can contribute to family income.

The “migrant worker no spouse” scenario could be expected to yield a living wage closer to the nationals' living wage. The reason for this is that the migrant is without a spouse and so is the sole earner covering the costs of decency. In addition, a

larger proportion of family costs are in Costa Rica, the more expensive country.

Other scenarios, especially those in which parents migrate with one or all of their children, are not as relevant for this exercise because as more members of the family move to Costa Rica, more elements of the Costa Rica (higher) living costs apply. In the scenario where all members migrate to Costa Rica, the living wage estimate is the same as for nationals.

In both of our scenarios, we assume a period of stay after first entry of five years. Many migrants stay in Costa Rica for much longer periods than that, but we assume that those migrants settle in Costa Rica permanently in family contexts for which, again, the

separate living wage argument is less applicable. Different sources (INEC, 2011; Voorend, 2019) agree that about two-thirds of all migrants from Nicaragua moved to Costa Rica in the 1990s or early 2000s. In the scenarios used for this exercise, we assume a loose intermediate assumption, considering both the more permanent migrants and more short-term, temporary migrants that come over for the harvesting seasons. Therefore, we decided to work with a loose assumption of five years. This is important, because as we will show below, there are costs related to the migration process itself that must be considered, and it must be decided over how many years some of these costs should be spread out in our empirical analysis exercise.

## 5. DATA AND ADJUSTMENTS TO ORIGINAL LIVING WAGE ESTIMATES FOR COSTA RICA AND NICARAGUA

**Table 2.** Assumptions for number of family members in two migration scenarios

Scenario	Nicaragua	Costa Rica
1: Migrant worker in Costa Rica with a spouse and 2 children left behind in Nicaragua	1 adult, 2 children	1 adult
2: Migrant worker in Costa Rica, no spouse and 2 children left behind in Nicaragua with grandparents	2 children	1 adult

Source: Authors

Tables 2, 3 and 4 contain the data used in our analysis for the two migration scenarios.

Several adjustments were necessary to consider for the two migration scenarios. First, both original living wage country reports used the same **reference family**

**size** of 4, two adults and two children. For migration Scenario 1 of a migrant worker with spouse and children in Nicaragua, the same family size of 4 is used. However, for Scenario 2 of a migrant worker without a spouse, but with two children in Nicaragua, a family size of 3 is used. Regarding the time and costs in the

care of children, in Scenario 1 the spouse in Nicaragua is not working full-time and spends part of his or her time in unpaid care work that includes cooking, cleaning, and taking care of children. In Scenario 2, this care work is delegated to the grandparents, who also need food, housing, and time for all the chores

implied with keeping a household. In this exercise, a 5% margin as a conservative estimate of these costs will be included, in partial recognition of the care work done by grandparents. We assume that grandparents do not contribute to the migrant's household income.

## 6. LIVING COSTS FOR MIGRANTS

Living costs are estimated in two steps. First, living costs for a basic but decent living standard are estimated for Costa Rica and Nicaragua. These living costs are estimated by adding up separate estimates for: (i) food (using a locally acceptable low-

cost nutritious diet), (ii) housing (using a local healthy housing standard), (iii) all non-food non-housing costs, and (iv) a margin for unforeseen events and emergencies. Step 2 adds various migration-related costs for Nicaraguan migrants living in Costa Rica.

### 6.1 FOOD COSTS

The Anker methodology estimates the cost of a model diet for a reference family. This is an average cost per person in a reference size family based on the calories required for each family member times the number of persons in the reference family. For the exercise in this paper, we assume that the migrant worker in Costa Rica is an adult with a vigorous activity level (working in the banana sector, for example). The spouse in Nicaragua is assumed to have a moderate activity level as are the children as these are reasonable and typical assumptions in the Anker methodology. Note that the original Costa Rica and Nicaragua studies used a family of 4 with one adult having a vigorous activity level, and the other adult and the two children having moderate activity levels.

Calorie requirements in the Anker methodology are based on the average Basal Metabolic Rate (BMR) from Schofield equations and average adult height, activity levels of family members, and family size/composition. In the top part of Table 3, average calorie requirements in both countries in the original study are indicated, after which calorie requirements for the two migration scenarios are shown.

The average calorie requirement for the Nicaraguan migrant working in Costa Rica is 3,074 in both Scenarios 1 and 2. This is the average of the calorie requirements for men and women with vigorous activity levels. This is 29% higher than the original average calorie requirement for a family of 4 (2 adults and 2 children) in Costa Rica (2,378 calories) because adults require more calories than the average calories for adults and children, and vigorous activities also require more calories. This ratio of 1.29, then, is multiplied by the daily cost of the model diet in Costa Rica (USD 2.99). This yields the daily cost of the model diet for a migrant worker with vigorous activity level in Costa Rica of USD 3.86.

Concerning the family members who stay in Nicaragua, in Scenario 1 of one adult spouse and two children, the average calorie requirement is 2,127 calories per person (the average calories required per person is less because there is only one adult in the family of 3 compared to 2 adults in the family of four – and as indicated above, adults need more calories than children). This gives a ratio of 0.90 compared to the original calorie requirement for a family of 4 in

Nicaragua, which is then multiplied with the original model diet cost in Nicaragua to get the average per person daily food cost of USD 1.31. This exercise is repeated for Scenario 2, with fewer family members

(both children) left behind in Nicaragua, and thus a lower calorie requirement and therefore a lower daily food cost of USD 1.16 person.

**Table 3.** Original study and new calorie requirements and food costs in USD of migration Scenarios 1 and 2 per family member in Nicaragua and Costa Rica

	Nicaragua	Costa Rica
<b>Original study and new calorie requirements</b>		
Original calorie requirement, average per person <b>(1)<sup>a</sup></b>	2,365	2,378
New calorie requirement, average per person – Scenario 1 <b>(2)</b>	2,127	3,074
New calorie requirement, average per person – Scenario 2 <b>(3)</b>	1,896	3,074
<b>Ratios original and new calorie requirements</b>		
Calorie ratio new/original - Scenario 1 <b>(4) = (2)/(1)</b>	0.90	1.29
Calorie ratio new/original – Scenario 2 <b>(5) = (3)/(1)</b>	0.80	1.29
<b>Original and new food costs per person per day, in USD</b>		
Original model diet cost in USD per person per day <b>(6)</b>	1.45	2.99
New model diet cost in USD per person per day – Scenario 1. <b>(7) = (4) x(6)</b>	1.31	3.86
New model diet cost in USD per person per day – Scenario 2. <b>(8) = (5) x(6)</b>	1.16	3.86
<b>New food costs for migrant family per day, in USD</b>		
Migrant family model diet cost per day in USD - Scenario 1: 3 members in Nicaragua, 1 in Costa Rica. <b>(9) = (7)x(number of family members)</b>	3.92	3.86
Migrant family model diet cost per day in USD - Scenario 2: 2 members in Nicaragua, 1 in Costa Rica. <b>(10) = (8)x(number of family members)</b>	2.33	3.86

**Note:** <sup>a</sup> Calorie requirements are slightly higher in Costa Rica than in Nicaragua (2,378 compared to 2,365), because adults are slightly taller in Costa Rica.

**Source:** Authors

Table 4 shows final total monthly food costs for the two scenarios. Food costs per month are higher in Scenario 1 (USD 237) compared to Scenario 2 (USD

188), because family size in Nicaragua is higher in Scenario 1 compared to Scenario 2 (3 compared to 2).

**Table 4.** Total monthly food costs for migrant families in Scenarios 1 and 2, in USD

	In Nicaragua	In Costa Rica	TOTAL
<b>Scenario 1: Migrant worker in Costa Rica with spouse and 2 children left behind in Nicaragua</b>			
Daily food costs for migrant family, in USD <b>(1)</b>	3.92	3.86	7.78
Monthly food costs for migrant family, in USD <b>(2) = (1)x(365/12)</b>	119	117	<b>237</b>
<b>Scenario 2: Migrant worker in Costa Rica with no spouse and 2 children left behind in Nicaragua</b>			
Daily food costs for migrant family, in USD <b>(3)</b>	2.33	3.86	6.19
Monthly food costs for migrant family, in USD <b>(4) = (3)x(365/12)</b>	71	117	<b>188</b>

Source: Authors

## 6.2 HOUSING COSTS

For both migration scenarios, we assumed decent housing is needed in both Costa Rica for the migrant as well as for the family left behind in Nicaragua at the local healthy housing standard in each country. We assume this is the family house in Nicaragua where the migrant worker can return. Therefore, we use the cost of basic decent housing from the original Nicaragua study with no adjustment for the family left behind in Nicaragua. Utility and maintenance, and repair costs were also left unchanged. One could argue that certain housing related costs would be lower, with one family member (the migrant to Costa Rica) missing, but we expect that the difference is small (e.g. less water), and therefore decided to make no changes to the housing costs in Nicaragua.

For Costa Rica, we assume that migrant workers need basic decent housing (even if many choose to live in poor conditions to save money). To estimate this, we assume that it is acceptable for decency for the migrant worker to share living space with

another migrant, but still have privacy. The original report in Costa Rica used a very conservative housing standard, which was on the low side for an upper-middle-income country like Costa Rica. The government's social housing standard was used as a reference for a family of four. This standard consists of a cement house with an interior living space of 42 m<sup>2</sup> (452 ft<sup>2</sup>), which is small for an upper middle-income country like Costa Rica (Anker and Anker, 2017). It has two bedrooms, one full bathroom (with flushing toilet connected to a septic tank or the sewage system, depending on the exact location), a small kitchen and a living room.

For our two migration scenarios, the same standard is used for the Costa Rica migrant, and it is assumed that a migrant worker can share housing with another migrant worker. That is, the bathroom, kitchen and living room are shared, but each worker has his or her own private bedroom. Utility costs in Costa Rica were already quite conservative, but the total was divided



by two on the assumption that utility costs can also be shared. Therefore, to obtain the total housing costs for the migrant worker in Costa Rica, we divided total housing costs in Costa Rica by two and get USD 94.5.

Table 5 shows the housing costs for both scenarios. Considering housing costs in Nicaragua (USD 99) and Costa Rica (USD 94.5), total housing cost for the migrant family, in both scenarios, is USD 193.5.

**Table 5.** Total monthly housing costs for migrant families in both migrant Scenario 1 and 2, in USD

	In Nicaragua	In Costa Rica	TOTAL
<b>Housing cost in original report, in USD</b>	99	189	
<i>Rent in original report, in USD</i>	75	134	
<i>Utilities, Repair, Maintenance in original report, in USD</i>	24	55	
Housing cost for migrant family left behind in Nicaragua (Scenarios 1 and 2)			<b>99</b>
Housing cost for migrant in Costa Rica (Scenarios 1 and 2)			<b>94.5</b>
<b>Total housing cost (Scenarios 1 and 2)</b>			<b>193.5</b>

Source: Authors

## 6.3 NON-FOOD NON-HOUSING (NFNH) COSTS

The Anker methodology estimates non-food non-housing costs (NFNH) based on data from a household expenditure survey. We follow this approach to estimate NFNH for families living in Costa Rica and Nicaragua. However, it is expected that migrant workers living alone in Costa Rica would have a different expenditure pattern for several reasons. For example, we expect migrants living alone to eat out more often because they do not have a spouse shopping and preparing meals. We also expect migrants to purchase more alcohol compared to the per capita expenditures of a family that includes children. On the other hand, we expect migrants to purchase fewer household furnishings because

their main home is in Nicaragua and to spend less on transport because they are likely to live close to their workplace and to have fewer relatives to visit in Costa Rica. And of course, migrants with children in Nicaragua would not have any education costs in Costa Rica.

Table 6 shows the original distribution of household expenditure for rural areas for the 30th percentile of the household consumption distribution from Voorend, Anker and Anker (2018) as well as one-person households around the same 30<sup>th</sup> percentile in rural areas from a special tabulation.<sup>4</sup> For calculating the NFNH/Food ratio, exactly the same

<sup>4</sup> For this, we used the data for percentiles 2-6, because sample sizes for separate deciles were relatively small.

methodological strategy was used as in the original living wage report.<sup>5</sup>

Table 6 confirms our expectation of one-person households having a different expenditure pattern than other households. The cost of food is higher because a person living alone tends to eat out more often than other families. Also, housing costs as a percentage of spending are higher, as shared rent for one-person housing is relatively expensive, although service costs (water, electricity, garbage etc.) are lower. Concerning NFNH costs, health care costs are lower (1.7% compared to 3.0%), probably because the selected age group (20-49 years) consists of people normally in good health who are not in need of as much

health care services. Education expenditures are not included, because we assume that migrant's children are in Nicaragua and the migrant has finished her or his education. Expenditure for clothing and footwear (2.9% compared to 4.4%), as well as household furnishings and appliances (1.8% compared to 5.7%) are lower, as was expected. Telecommunications is fairly similar, while "recreation and culture" is considerably lower for one-person households, which is somewhat surprising. This may be explained by the fact that many of these (one-person) households are only slightly above the poverty line. Transport is lower for one-person households, which is explained by a higher incidence of public transportation and not private transport.

**Table 6.** Distribution of expenditure, by expenditure groups, for households versus one-person households in rural Costa Rica

Expenditure group	Rural household from original report	Rural one-person household*
	30th% tile	30th% tile
<b>Food (total) (1)</b>	<b>32.8</b>	<b>35.6</b>
Food eaten at home	29.5	27.9
Food eaten away (45% food cost only)	3.3	7.6
<b>Housing (total) (2)</b>	<b>19.4</b>	<b>29.8</b>
Rental (actual + imputed)	12.0	25.8
Services - Water, Electricity, Garbage and Other	7.0	3.8
Maintenance and repair	0.3	0.3

\* One-person household expenditure is calculated using expenditure data for one-person households for ages 20-49 in rural areas for the 2nd through 6th decile of income distribution. This was done to ensure large enough sample size, while estimating expenditure patterns around the 30th percentile.

<sup>5</sup> In this calculation, tobacco is taken out, because it is not considered essential in the Anker methodology, and half of private transport costs is taken out because public transport is considered acceptable for decency and private transport is considered to be twice as expensive as public transport. Around 45% of the cost of food purchased away from home in rural areas is assumed to be for the food in these meals with around 55% for services, overheads and profit and so under the rubric of NFNH costs. Education is excluded because our scenarios assume that the migrant children live in Nicaragua and so there are no education expenses in Costa Rica.

Expenditure group	Rural household from original report	Rural one-person household*
	30th% tile	30th% tile
<b>Housing (total) (2)</b>	<b>19.4</b>	<b>29.8</b>
Rental (actual + imputed)	12.0	25.8
Services - Water, Electricity, Garbage and Other	7.0	3.8
Maintenance and repair	0.3	0.3
<b>Non-Food Non-Housing (total) (3)</b>	<b>44.4</b>	<b>32.4</b>
Health	3.0	1.7
Education	1.6	-
Transport (1/2 of private and 100% of public)	7.9	5.5
Clothing and footwear	4.4	2.9
Household contents and appliances	5.7	1.8
Telecommunications	4.8	4.5
Recreation and Culture	5.9	2.2
Meals and drinks away (55% services, profits etc.)	4.1	9.3
Other	7.0	4.5
<b>Taken out (total) (4)</b>	<b>3.4</b>	<b>2.2</b>
Tobacco	0.2	1.1
1/2 of private vehicle purchase and operation	3.2	1.1
<b>TOTAL (5) = (1)+(2)+(3)+(4)</b>	<b>100</b>	<b>100</b>
<b>NFNH-F Ratio (6)=(3)/(1)</b>	<b>1.35</b>	<b>0.91</b>

Source: Authors

To calculate the NFNH to Food ratio for migrants in Costa Rica, we divided the adjusted NFNH expenditure (32.4%) by the adjusted Food expenditure (35.6%). This gives a NFNH/Food ratio of 0.91, which is much lower than the 1.35 used in the original living wage report. Given that the expenditure patterns for one-person households is substantially different

from the nuclear reference family used in the original living wage report, it was decided to use 0.91 NFNH/Food ratio to estimate the NFNH costs for the migrant worker in Costa Rica. For the Nicaraguan part of the migrant family, the original NFNH/Food ratio of 0.66 from the Nicaragua report was used, without making adjustments. Table 7 summaries this information.

**Table 7.** Non-Food Non-Housing (NFNH) costs for migrant families in both migration scenarios, in USD

	In Nicaragua	In Costa Rica	TOTAL
<b>Original and new NFNH/Food ratio for migrant families</b>			
Original NFNH/Food ratio	0.66	1.35	
New NFNH/Food ratio for migrant family (1) (see previous table)	0.66	0.91	
<b>Monthly food costs for migrant family, in USD</b>			
Scenario 1: Migrant worker with spouse, 2 children (2)	119	117	<b>237</b>
Scenario 2: Migrant worker, no spouse, 2 children (3)	71	117	<b>188</b>
<b>Monthly NFNH costs for migrant family, in USD</b>			
Scenario 1: Migrant worker with spouse, 2 children (4) = (1)*(2)	79	153	<b>186</b>
Scenario 2: Migrant worker, no spouse, 2 children (5) = (1)*(3)	47	153	<b>154</b>

Source: Authors

## 6.4 MIGRANT-RELATED COSTS

Until now, the exercise of estimating the cost of a decent living for migrant families has considered the cost structure of the different family members on both sides of the border. However, this ignores specific costs related to the migration process and being a regular migrant in a host country that the original living wage studies did not consider, such as the legal costs of documentation, and costs related to the dynamics of migrant families, such as the fees for sending remittances and making periodic family visits. These migration-related costs must be considered. Table 7 summarizes our estimate of these costs for both migration scenarios.

First, there are costs related to obtaining and retaining a regular migratory status in Costa Rica. For decency, we assume formal labor relations, which requires a regular migratory status. In Costa Rica, the costs of acquiring such a status have been estimated to be as high as 800 USD (IIS et al, 2012; Voorend, 2019)

for migrants who obtain their regular migratory status for the first time. For our exercise, however, we conservatively assume the migrant has most of the required documentation ready and only include a one-time amount of USD 35 to cover any other additional costs related to the obtaining of documents. This a very conservative estimate of possible costs that arise, which include the legal costs, and the costs of travel to and from Nicaragua to obtain the legal documents necessary for the regularization process (IIS et al., 2012).

Besides USD 35, there are onetime and recurring costs related to being a regular migrant in the country, established in the Migration Law of 2009. The first time, the regularization process requires a fee of USD 200 to change migratory category, as well as an administrative fee of USD 25. This means a total cost of USD 260 is required with the first-time regularization process (USD 200 + USD 25 + USD 35).

There are also costs of starting any administrative process with the Migration authority (USD 50) and costs related to the production and issue of the plastic identification card (USD 98, total) (cf. Law 8764, art. 251, 252 and 253), therefore in total USD 148. These USD 148 costs are annually recurring costs. So, for the first time a migrant applies for a regular migratory status, the costs amount to at least USD 408 (USD 260 + USD 148). To calculate the yearly cost of the first-time regularization process, we spread out these costs over a period of 5 years, which is our assumed length of stay. That gives a prorated cost of around USD 82 per year (USD 408/5).

The yearly recurring costs of USD 148, for the migrant to maintain his or her regular migratory status, imply that the total yearly costs of a regular migratory status costs the migrant are about USD 230 (USD 82 + USD 148), which implies a monthly cost of about USD 20.

This is a conservative estimate, because Costa Rica's Migration Authority tends to approve work and residence permits for even shorter periods of 6 months. Only after more years of residence in the country, will authorities become more lenient and approve permits for longer periods of stay, initially for 2 years and possibly 3 years. It is safe to say, however, that the total yearly costs for a regular migratory status are at the least USD 230 per year in the first five years of stay in Costa Rica. That is, the USD 20 per month on a prorated basis for five years, is a conservative estimate.

In addition, for decency, we assume migrant workers have regular contact with their spouse and/or children. We therefore include the travel costs of 2 visits per year to their family members in Nicaragua. We conservatively estimate the costs of one trip to and from Nicaragua at USD 71, including a return bus ticket (USD 46)<sup>6</sup>, local travel costs in Nicaragua (USD

10), and Costa Rica (USD 15) related to this visit. Two visits a year thus imply USD 142 per year, or USD 12 per month on average.

Similarly, being away from family members implies additional communication costs. One-person households in Costa Rica currently spend 4.5% of their income on telecommunications, which amounts to less than USD 15 a month. We believe this is too low for a migrant who has his or her family away in Nicaragua, and with whom fluent and regular communication should be expected for decency. Therefore, again very conservatively, we include the cost of an additional internet package of 2GB of about USD 7 per month.<sup>7</sup> We do not include the cost of additional cell phone packages because with the additional internet package, fluid communication should be possible through much used communication applications, such as WhatsApp.

Also, migrant workers regularly send remittances to their family members in Nicaragua to cover a large part of their living costs. In many cases, this is the whole idea that motivates migration in the first place. Sending remittances from Nicaragua to Costa Rica<sup>8</sup> for monthly amounts of USD 100-300 typically has a fee of USD 8. In total, then, the monthly migration-related costs sum to USD 55 for Scenario 1.

For the second migration scenario, that of a migrant worker with no spouse but two children left behind in Nicaragua under the care of grandparents, we assume that the migrant worker is expected to partially provide for other family members. It is common practice in the Anker methodology to include a 5% margin in scenarios in which workers are expected to provide for other family and household members outside their nuclear family such as grandparents. Therefore, in recognition of the care work performed by grandparents in this migration scenario, we decided

<sup>6</sup> <https://www.ticabus.com/Route>

<sup>7</sup> [https://www.kolbi.cr/wps/portal/kolbi\\_dev/personas/prepago/opciones-prepago/paquetes-internet-prepago/prepago-paquetesinternet](https://www.kolbi.cr/wps/portal/kolbi_dev/personas/prepago/opciones-prepago/paquetes-internet-prepago/prepago-paquetesinternet)

<sup>8</sup> <https://www.westernunion.com/cr/en/home.html>



to include this 5% margin, or USD 30 a month. This may be used, for example, to cover part of the food costs of a grandparent. It is worth noting that this is a conservative amount by all standards. For example, the cost of our Nicaragua model diet for a 65-year-old

person<sup>9</sup> is USD 41.

Table 8 summarizes the migration-related costs for both migration scenarios.

**Table 8.** Migration-related costs for Nicaragua migrant in Costa Rica for Migration Scenarios 1 and 2, in USD

Item	Costa Rica
<b>Estimated costs of obtaining and retaining a regular migratory status</b>	
First-time costs (USD 373) spread out over 5 years prorated to annual cost (1)	82
Yearly renovation costs (2)	148
Monthly cost of regular migratory status (3) = ((1)+(2))/12	20
<b>Travel costs assuming twice yearly visits to family in Nicaragua</b>	
Yearly travel costs (bus tickets + local travel costs) (4)	142
Monthly travel costs (5) = (4)/12	12
<b>Remittance sending fee</b>	
Fee for monthly remittance amount of USD 100-300 (6)	8
Monthly cost of sending occasional package ("social remittances") (Per year: 2 packages from Costa Rica to Nicaragua and 2 vice-versa, 25 USD each package) (7)	8
Total monthly remittance and social packages sending fees (8)	16
<b>Additional communication costs</b>	
Additional internet package of 4 GB per month (9)	7
<b>Scenario 1: Total monthly migration-related costs (10) = (3)+(5)+(8)+(9)</b>	<b>55</b>
Conservative care related costs for one Grandparent caring for children left behind (10)	30
<b>Scenario 2: Total monthly migration-related costs + Care related costs (11) = (9) + (10)</b>	<b>85</b>

Source: Authors

<sup>9</sup> This was calculated based on calorie requirement of 2205 calories for an average adult of 65 years and older with moderate activity levels in Nicaragua, based on the Nicaraguan model diet and its cost.

## 6.5 TOTAL LIVING COSTS FOR MIGRANT FAMILIES: THE TWO MIGRATION SCENARIOS

Table 9 summarizes the structure of the estimated cost of decent living for migrant families in both migration scenarios.<sup>10</sup> As is customary in living wage estimates,

a small 5% margin for unforeseen expenses is added for sustainability.

**Table 9.** Total basic but decent living costs for migrant families in two migration scenarios, in USD

Migration scenario and expenditure items	Family left behind in Nicaragua	Migrant in Costa Rica	Total
<b>Scenario 1: Migrant worker, with spouse and two children in Nicaragua</b>			
Food cost per month for reference family (1)	119	117	237
Housing costs per month (2)	99	95	194
Non-Food Non-Housing per month after post check adjustments (3)	79	107	186
Migration related cost (4)		55	55
Additional 5% for sustainability and emergencies (5)			34
<b>Total household costs per month for basic but decent living standard for reference family (6) [6=1+2+3+4+5]</b>			<b>704</b>
<b>Scenario 2: Migrant worker, with no spouse and two children in Nicaragua</b>			
Food cost per month for reference family (1)	71	117	188
Housing costs per month (2)	99	95	194
Non-Food Non-Housing per month after post check adjustments (3)	47	107	154
Migration related cost (4)		55	55
Conservative care related costs for one Grandparent caring for children left behind (5)		30	30
Additional 5% for sustainability and emergencies (6)			31
<b>Total household costs per month for basic but decent living standard for reference family (7) [7=1+2+3+4+5+6]</b>			<b>651</b>

Source: Authors

<sup>10</sup> In the original living wage report for Costa Rica, the amount dedicated to healthcare spending was adjusted downward by USD 20 in recognition of the strong public healthcare system. Access to this healthcare system is anything but straightforward for migrants even if they have a regular migratory status (Voorend, 2019) which implies higher levels of private healthcare spending among migrants (Fouratt and Voorend, 2016). However, given that we assume they have a regular migratory status because of their formal employment, we assume that Nicaragua migrants gain access to the same health system as Costa Rica nationals, as there is no legal or institutional barrier to do so. Therefore, it was decided to apply the same downward adjustment in this exercise.

# 7. MIGRANT LIVING WAGES VERSUS THE ORIGINAL LIVING WAGE

In this section, a living wage is estimated to cover the costs of a decent life in the two migration scenarios. For this, the number of full-time workers in Nicaragua

contributing to family income needs to be considered, as well as the wage at which this income is earned.

## 7.1 NUMBER OF FULL-TIME EQUIVALENT WORKERS PROVIDING SUPPORT IN THE TWO MIGRATION SCENARIOS

Given that the living wage is a family concept, it is appropriate to expect more than one adult in a family with two adults to provide family support through work. In the original living wage reports for Nicaragua and Costa Rica, this number of full-time equivalent workers per household used to estimate the living wage was determined based on data for both countries' rural areas on males and females aged 25-59 on (i) labor force participation rates (LFPR), (ii) unemployment rates, and (iii) number of hours worked to determine the extent of part-time employment. From these data, the likelihood of full-time employment was calculated as follows:

$$\text{Likelihood of full-time employment} = \text{LFPR} \times (1 - \text{unemployment rate}) \times (1 - \text{part-time employment rate}/2)$$

In the original living wage reports for Costa Rica and Nicaragua, the likelihood of full-time employment per family was calculated by averaging results for adult men and women in the family. In this paper, we assume the migrant worker is a full-time worker, and for Scenario 1 we assume that the spouse in Nicaragua has “the average number of work hours observed for men and women of prime working age (25-59 years old) living in 2-7 person households in rural areas of Northwest Nicaragua” as found in the original living wage report for Nicaragua (Andersen & Hernani-Limarino, 2019: 52) which was based on 2014 household survey data. This was 26.6 hours per week or 0.55 full-time work (26.6/48). This allows the spouse left behind in Nicaragua to provide care for the two children. Table 10 reports this:

**Table 10.** Number of full-time equivalent workers per family in two migrant scenarios

Full-time equivalent workers by country	Family member in Nicaragua	Migrant in Costa Rica	Total number of workers
<b>Scenario 1: Migrant worker in Costa Rica, spouse in rural Nicaragua</b>	0.55	1.0	1.55
<b>Scenario 2: Migrant worker in Costa Rica, no spouse</b>	0	1.0	1.00

Source: Authors

We assume that the spouse in Nicaragua earns the minimum wage for the agricultural sector in Nicaragua, which in the original report was referenced for February 2018 at C\$ 3,774, or USD 124. That means that the spouse in Nicaragua in migration Scenario

1 contributes USD 68 to household income (=0.55 \* USD124). In the Scenario 2, migrant worker with no spouse, there is no second adult in Nicaragua contributing to family income.

## 7.2 COMPARING LIVING WAGES: NICARAGUAN MIGRANTS VERSUS NATIONALS IN COSTA RICA

Considering all the above inputs, Table 11 shows the wage the migrant worker would need to earn to ensure that all family members on both sides of the border live a basic but decent life. In Scenario 1, in which a migrant worker is in Costa Rica alone with a spouse and two children in Nicaragua, the migrant living wage would have to be USD 636. In Scenario 2, for a migrant worker with two children in Nicaragua but no spouse, the living wage is slightly higher at

USD 651. In both scenarios, maybe surprisingly and in contrast with the initial hypothesis of a considerably lower living wage for Nicaragua migrants, the living wage for migrants is very close to the USD 670 living wage from the original report for Costa Rica nationals. Indeed, the living wage estimated for migrants is only 5% lower for scenario 1 and 3% lower for scenario 2 compared to that of Costa Rica residents.

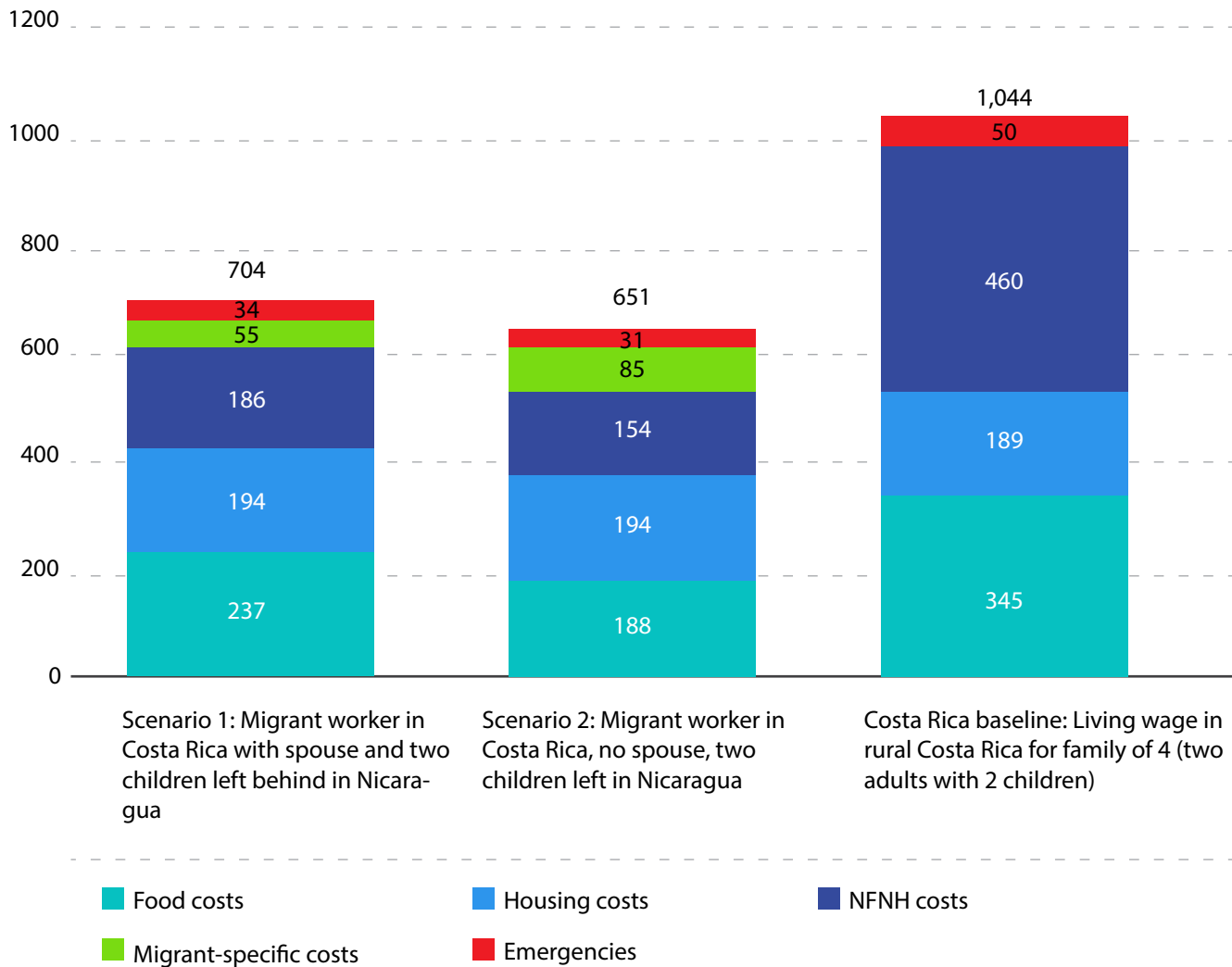
**Table 11.** Living wages for migrant workers in two migration scenarios, compared to living wage for Costa Rica nationals, in USD

Item	SCENARIO 1: Migrant worker in Costa Rica with spouse and two children left behind in Nicaragua	SCENARIO 2: Migrant worker in Costa Rica, no spouse, two children in Nicaragua	COSTA RICA BASELINE: Living wage in rural Costa Rica for family of 4 (two adults with 2 children)
<b>Cost of living (1)</b>			
Food costs (1A)	237	188	345
Housing costs (1B)	194	194	189
NFNH costs (1C)	186	154	460
Migrant-specific costs (1D)	55	85	0
Emergencies (1E)	34	31	50
<b>TOTAL living costs (2)</b>	<b>704</b>	<b>651</b>	<b>1,044</b>
<b>Spouse's earnings in Nicaragua (3)</b>	<b>68</b>	<b>0</b>	<b>374</b>
<b>Living wage needed by Nicaragua migrant in Costa Rica for decency for family (partly in Nicaragua) assuming full-time work (4)=(2)-(3)</b>	<b>636</b>	<b>651</b>	<b>670</b>

Source: Authors

Figure 2 shows the family living expenses for decency for the two migrant scenarios compared to that of a Costa Rican resident family. The cost of a basic, but decent standard of living for the national family are considerably higher, much of which is explained by the

higher Non-Food Non-Housing costs, because they are all in the more expensive country. In contrast, in the migrant scenarios, a considerable share of NFNH costs is in the less expensive country, Nicaragua.

**Figure 2.** Family living expenses for two migrant scenarios and Costa Rican resident family

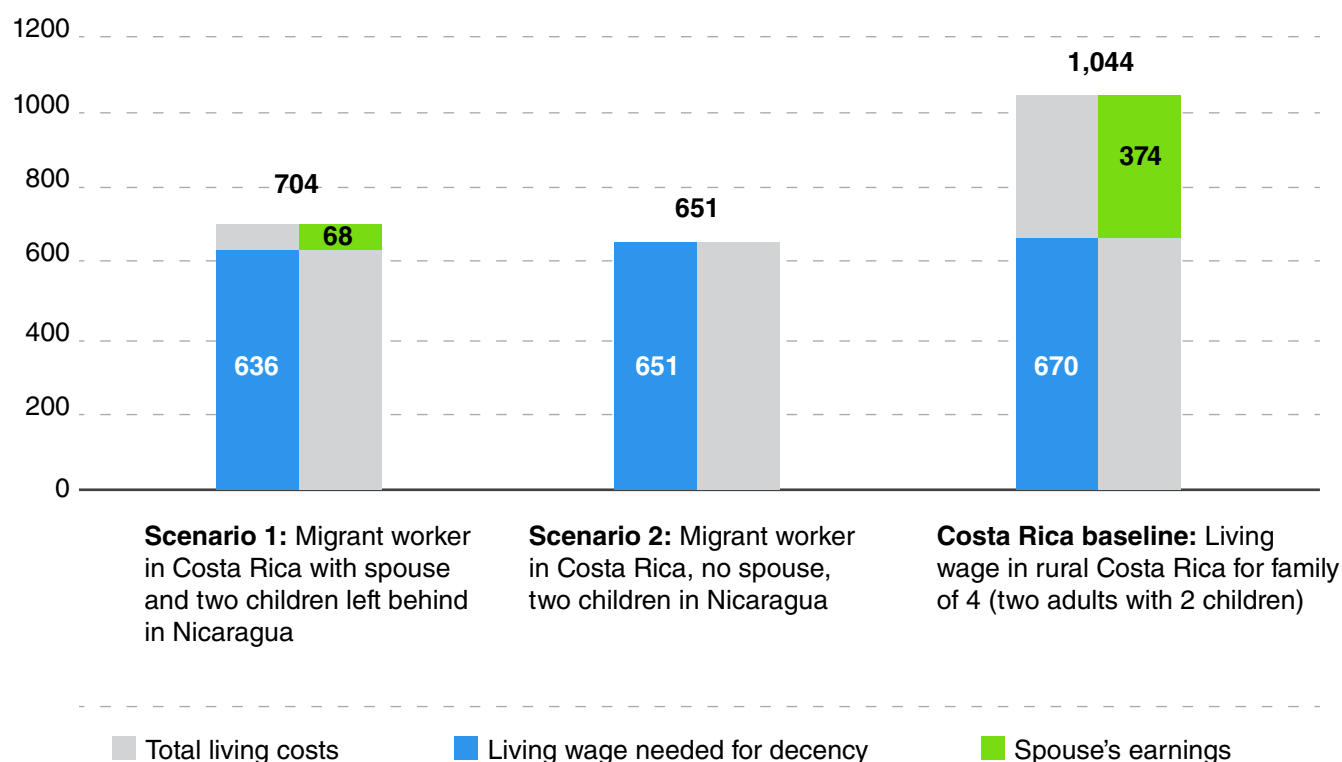
Source: Authors

Figure 3 shows the total living costs (light grey) and the breakdown of wages into the migrant's living wage (blue) and the spouse's contribution to income (green). Although the costs of living of nationals and migrants differ substantially, the living wages of

migrants and nationals are only marginally different. This is because the spouse's earnings in a Costa Rican resident family constitutes a much larger contribution to total household income compared to that of the migrant family's spouse.



**Figure 3.** Total living costs, living wage needed for decency, and spouse's earnings in two migration scenarios and the Costa Rica baseline



Source: Authors

## 8. CONCLUSIONS

This paper has investigated empirically the argument, often heard from employers, that a lower living wage for migrant workers is appropriate, because migrants have lower living expenses since they have families left behind in areas with lower living expenses. This argument is supported by the fact that migration processes are predicated on differentials in wages between origin and receiving countries and locations. To investigate this argument, two different migration scenarios were investigated for Nicaragua migrants in Costa Rica: (i) a migrant worker in Costa Rica with

a spouse and two children left behind in Nicaragua, and (ii) a migrant worker in Costa Rica with no spouse and two children left behind in Nicaragua under the care of grandparents.

The empirical analysis in this paper was made possible by the existence of two comparable studies which documented living wages and living costs in rural Nicaragua and rural Costa Rica. This is fortuitous both because migration from Nicaragua to Costa Rica is one of Latin America's most

important and long-standing migration systems, and because the cost of a basic but decent living standard is 2.5 times higher in rural Costa Rica than in rural Nicaragua.

Results in this paper are surprising as they show that the living wage for a migrant from rural Nicaragua living in rural Costa Rica with a family left behind in Nicaragua is similar (less than 5% lower) to the living wage for a rural Costa Rica resident with a similar size family. This result, therefore, provides empirical evidence to counter the argument for a lower living wage for migrant workers, and reinforces world-wide ethical norm of equal pay for work of equal value.

This surprising result is driven by several factors. First, there are costs related to being a migrant, particularly to being a regular migrant. These costs include the fees for the regularization process and renewal of migration documents, remittance fees for sending home money each month, and extra communication costs. These migration-related costs represent about 8% of total living costs. Second, housing costs for migrants and residents are quite similar. This is partly because migrants need two houses to accommodate the migrant family living on both sides of the border and partly because both of these houses needed to be at an acceptable decency level for a living wage. And while undoubtedly many, if not most, Nicaragua migrants in Costa Rica actually live in poor housing, this is a choice in order to save money. Note that while

estimated costs for basic healthy housing are similar for migrants and resident nationals in absolute terms, housing costs represent a substantially larger share of total expenditure for migrant families compared to national resident families (around 29% versus around 18%). Third, while food costs are substantially lower in Nicaragua, the adult migrant in Costa Rica also requires a decent diet and being without a spouse to shop and prepare meals for free as part of unpaid care work, migrants spend more on meals away from home and this increases food costs. As a result, food costs as a share of total expenditure are fairly similar for migrants and for nationals, at around 30-33%. Fourth, there is a big difference between migrants and nationals in the contribution to family income of the spouse. The migrant's spouse living in Nicaragua has rather low earnings, because we assume that s/he earns at a typical Nicaraguan level such as the minimum wage which is very low compared to wages in Costa Rica. Indeed, we found that the contribution to family earnings of the spouse living in Nicaragua is not much more than the migration-related expenses incurred by the migrant worker.

In summary, to the best of our knowledge, this paper provides the first solid empirical evidence on what a living wage would be for a migrant worker with a family left behind in a much lower living cost area. It provides evidence that a living wage for migrants is actually similar to a living wage for national residents. Although this surprising result is explainable as indicated above, it is clear that additional examples and studies are warranted in other countries and situations.

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