Living Wage Report

Baja California, México –

Municipalities of Ensenada and San Quintín

Study Date: January 2021

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GLOBAL LIVING WAGE COALITION

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The Anker Living Wage and Income Research Institute was founded by Richard Anker and Martha Anker, the Global Living Wage Coalition, and Clif Bar & Company. Social Accountability International (SAI) is the institutional host.

Under the Aegis of Fairtrade International, Rainforest Alliance, Social Accountability International, in partnership with ISEAL Alliance and Richard Anker and Martha Anker.

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Only the authors are responsible for the results of this study. The opinions and conclusions expressed here do not necessarily coincide with those of the aforementioned individuals and institutions.

ABSTRACT

We present estimates of the living wage in the municipalities of Ensenada and San Quintín, which are located in the center and south of Baja California, México. Economic activity in these municipalities is concentrated in agriculture and fishing, and to a much lesser extent in industry. The poverty rates are considerably higher than average for Baja California, but somewhat lower than average for Mexico. In the calculation, we used the Anker and Anker (2017) methodology and data from both primary and secondary sources. We obtained food prices and housing costs directly through a price survey in the two areas studied. We inferred the costs of goods and services other than food and housing from secondary data sources. These secondary data sources, mainly household income and expenditure surveys, do not distinguish between municipalities, but do distinguish between urban and rural areas. The fact that Ensenada is predominantly urban and San Quintín rural and small towns, allowed us to obtain estimates of these costs for each municipality. We show that the living wage in the municipality of Ensenada is MXN 15,929 (US$ 800) per month, which consists of take-home pay of MXN 13,539 (US$ 680) and MXN 2,389 (US$ 120) in income tax and social security. For San Quintín, the living wage is MXN 15,009 (US$ 754) per month consisting of take-home pay of MXN 12,835 (US$ 645) with MXN 2,174 (US$ 109) in social security contribution and income tax. Although these values are similar with only a 5.5% difference between them, we recommend using the living wage that corresponds to each jurisdiction. However, for those companies that have workers in both municipalities and that consider it impractical to have, or cannot pay, two different living wages, we recommend using the higher estimate to ensure that the wage is sufficient to accommodate all workers in the study area.

Keywords: living wage, Anker methodology, decent work, Baja California, Mexico.

Living Wage Estimate

Baja California, México

Study Date: January 2021

SECTION I: INTRODUCTION

1. BACKGROUND

In this report, we present the results of a study on the living wage in the municipalities of Ensenada and San Quintín in the state of Baja California, México. In section I, we discuss the background and the socio-economic context of the study area. In section II, we report the estimated cost of a basic but decent life for a worker and her/his family, and in section III we present and discuss our estimates of the living wage for both municipalities. In section IV, we comment on how the estimated living wage compares to the wages actually paid, and conclude with some final remarks.

This study uses the Anker and Anker (2017) living wage methodology to estimate the living wage for the study area. This methodology has been used in more than 40 studies in more than 30 countries. The methodology uses experts' opinion, and worker and employer views along with an exhaustive investigation of the needs of the population under study. It is at the intersection between studies that are based exclusively on primary information sources and those that exclusively use secondary data.

The Espinosa Yglesias Research Centre (CEEY) has been a pioneer in the estimation of the living wage in México. In Delajara et al. (2020), the same authors of this report applied for the first time the Anker & Anker methodology (2017) to estimate the living wage in the northwest municipalities of the state of Michoacán, México.[1] In addition, the report by Aban-Tamayo et al. (2020), funded by CEEY, presented the estimation of the minimum income standard for a decent life in four large metropolitan areas of México. This study follows an alternative approach developed by the Center for Research in Social Policy (CRSP) at the University of Loughborough, United Kingdom.

The present report is part of a series of living wage reports of the Anker Research Institute and the Global Living Wage Coalition (GLWC), which are done following the methodology developed in Anker & Anker (2017).[2, 3]

[1] https://www.globallivingwage.org/living-wage-benchmarks/living-wage-for-michoacan-mexico/

[2] The GLWC includes Fairtrade International, Rainforest Alliance, and Social Accountability International (SAI) in association with ISEAL Alliance and in partnership with international living wage experts Richard Anker and Martha Anker. The GLWC has the shared mission of constantly improving the wages of workers in the farms, factories and supply chains that participate in their respective certification systems, with the long-term goal of workers receiving a living wage. Every living wage estimate anywhere in the world commissioned by the GLWC is made public with the goal of promoting the payment of a living wage (GLWC 2020).

[3] See *Global Living Wage Coalition* (https://www.globallivingwage.org/)

There is a consensus regarding the definition of a living wage even if slightly different wording is sometimes used. This report uses the definition of the Global Living Wage Coalition (GLWC):

"Remuneration received for a standard workweek by a worker in a particular place sufficient to afford a decent standard of living for the worker and her or his family. Elements of a decent standard of living include food, water, housing, education, health care, transport, clothing, and other essential needs, including provision for unexpected events."

2. LIVING WAGE ESTIMATE

In this report, we show that the living wage in the municipality of Ensenada is MXN 15,929 (US$ 800[4]) per month, which consists of take-home pay of MXN 13,539 (US$ 680) and MXN 2,389 (US$ 120) in income tax and social security. For San Quintín, the living wage is MXN 15,009 (US$ 754) per month consisting of take-home pay of MXN 12,835 (US$ 645) with MXN 2,174 (US$ 109) in social security contribution and income tax. This remuneration is what the worker needs to receive monthly to be able to live a basic, but decent life. Although these values are similar with only a 5.5% difference between them, we recommend using the living wage that corresponds to each jurisdiction. The rest of this report details the methodology and the process by which the estimate of the living wage was determined. It is essentially a simple and transparent process designed to be accessible and clearly understood.

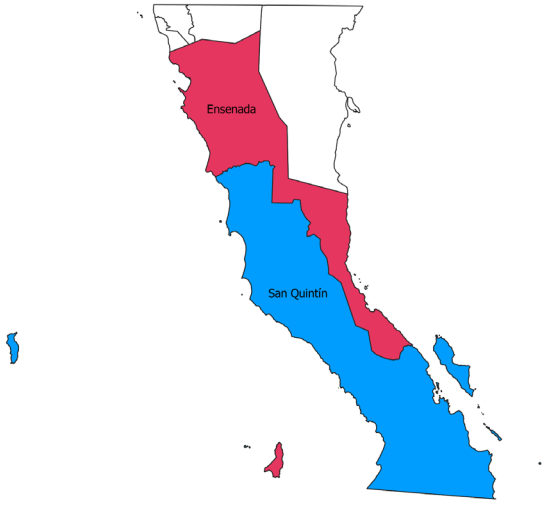
3. CONTEXT AND METHODOLOGY

Baja California is a state of México, on the northern border with the United States (Map 1A). It has a territorial extension of 71,450 km^2 and a population of 3.76 million people. Thus, population density is 52.8 persons/km^2. The median age of the population is 30 years and the dependency rate is 42.6.[5] Baja California had five municipalities until 2020. This included four municipalities in the northern part of the state (the wealthier and more densely populated part of the state) and the municipality of Ensenada in the southern part of the state. Ensenada was then divided into two municipalities, Ensenada (in the north and northwest of the old demarcation) and San Quintín (in the south) (Map 1B), by the "Decree establishing the municipality of San Quintín". The decree was published in the Periódico Oficial de Baja California on February 27, 2020. The fieldwork for the present study was conducted during January 2021 in Ensenada (443,807 inhabitants) and San Quintin (117,568 inhabitants).

[4] Throughout this report, an exchange rate of 19.9 Mexican pesos (MXN) to USD is used to convert MXN values to USD values. This was the approximate exchange rate in January 2021 when the study fieldwork was done.

[5] Data from the 2020 Population and Housing Census (INEGI, National Statistics and Geography Institute). The dependency ratio is the number of dependent persons for every 100 people of reproductive age.

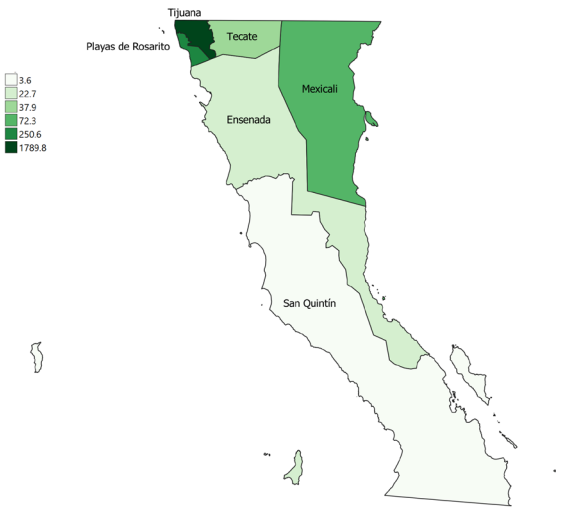
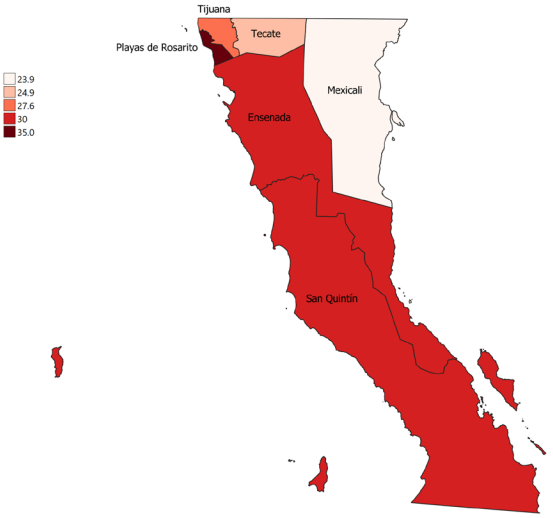
Map 1
Location of the state of Baja California and the municipalities in this study

A- Baja California, Mexico	B- Ensenada and San Quintin, Baja California
	

Source: INEGI.

Where possible in the analysis of the living wage, we used up-to-date data on population, education and housing in these two municipalities from the 2020 Population and Housing Census (e.g., Map 2A shows the population density in the six municipalities of Baja California as reported in the Census). We also used secondary data from surveys dated prior to the aforementioned Census and Decree. In these sources, the information for Ensenada and San Quintín is reported for both districts as a whole (for example, see the data on poverty in Map 2B). It was possible, however, to take advantage of the secondary data sources to estimate some of the relevant statistics used in the calculation of the living wage for rural and urban areas of the state of Baja California. We then used these statistics to distinguish between the municipalities of Ensenada and San Quintín (as it will become clear below).

Map 2
Population density and poverty rate in Baja California

A- Inhabitants by Sq. Km	B- Percentage of population in moderate poverty
	

Source: A- 2020 Population and Housing Census; B- Coneval (National Council for the Evaluation of Social Policy).

The analysis of the 2020 Census data shows that Ensenada and San Quintín are very different in terms of the degree of urbanization. Ensenada is a municipality with a predominantly urban population, while San Quintín it is mainly small towns and rural (Image 1). While more than 80% of Ensenada's population resides in towns with more than 15,000 inhabitants, in San Quintín, 84% resides in towns with less than 15,000 inhabitants (and 35% lives in towns with less than 2,500 inhabitants) (Figure 1).

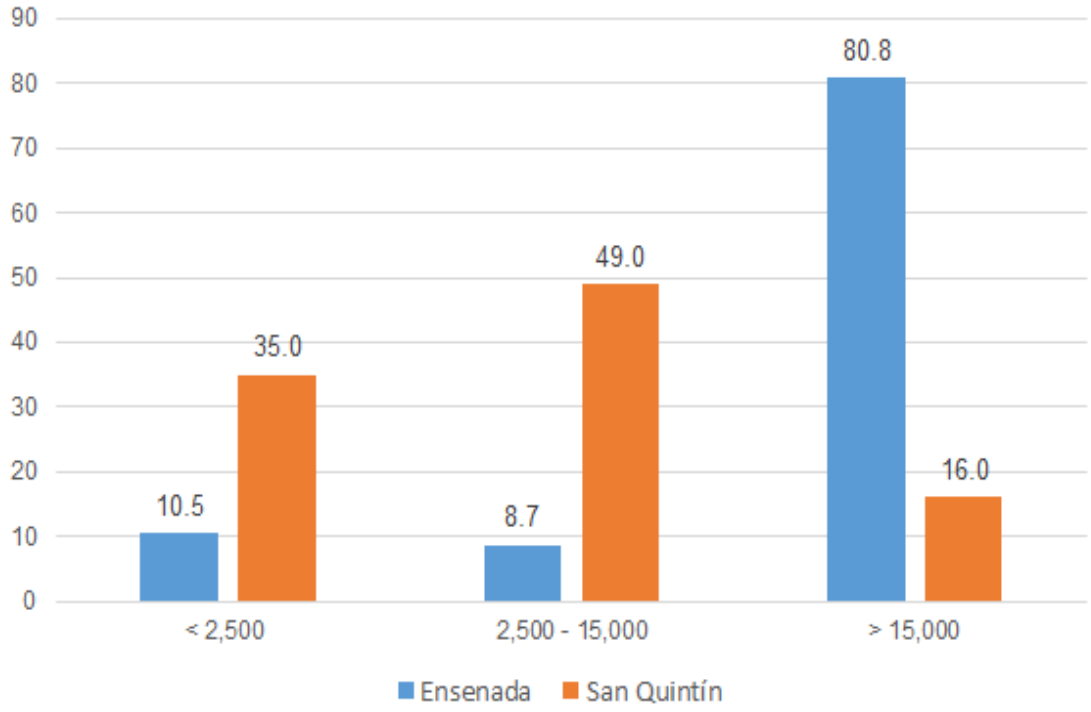
Image 1
Degrees of urbanization in Ensenada and San Quintín

	
Urban locality, Ensenada	Urban locality, Ensenada
	
Small town, San Quintín	Small town, San Quintín
	

Rural locality, San Quintín	Rural locality, San Quintín

Note: Photos by Claudia Fonseca (CEEY).

Figure 1



Source: 2020 Population and Housing Census (INEGI).

3.1 Local economic context

Thirty three percent of the population of Ensenada and San Quintín lives in moderate poverty, and 3.5% of the population lives in extreme poverty, according to the government's definition of poverty (Map 2B and Table 1). These poverty rates are considerably higher than average for the state of Baja California (21.6% and 1.6%), but somewhat lower than average for México (34.5% and 7.4%, respectively). In terms of specific deprivations, the rates for Ensenada and San Quintin are similar to the national average. 54.2% of the population in these municipalities does not have access to social security, 27.9% lacks basic housing services, 18.3% suffers from food insecurity, 17.9% has low educational achievement and 12.6% lives in homes with quality problems and insufficient space (Table 1).

Table 1
Indicators of poverty in Mexico, Baja California, and the study municipalities

Indicators	Mexico	Baja California	Ensenada/ San Quintín
Poverty			
Population in poverty	41.9	23.3	33.5
Moderate poverty	34.5	21.6	30.0
Extreme poverty	7.4	1.6	3.5
Vulnerable population due to social deprivation	29.3	39.8	37.1
Vulnerable population due to low income	6.9	6.8	6.6
Non-poor non-vulnerable population	21.9	30.2	22.7
Social deprivation			
Population with at least one social deprivation	71.2	63.0	70.6
Population with at least three social deprivations	18.8	9.7	21.5
Indicators of social deprivation			
Low schooling achievement	16.9	14.0	17.9
Lack of access to health services	16.2	16.9	14.5
Lack of access to social security	57.3	45.2	54.2
Low quality housing	11.1	9.5	12.6
Lack of basic household services	19.8	8.9	27.9
Food insecurity	20.4	14.1	18.3
Well-being			
Population with income below the extreme poverty line	16.8	5.8	40.1
Population with income below the poverty line	48.8	30.0	10.5

Source: Coneval (2018).

3.2 Economic activity

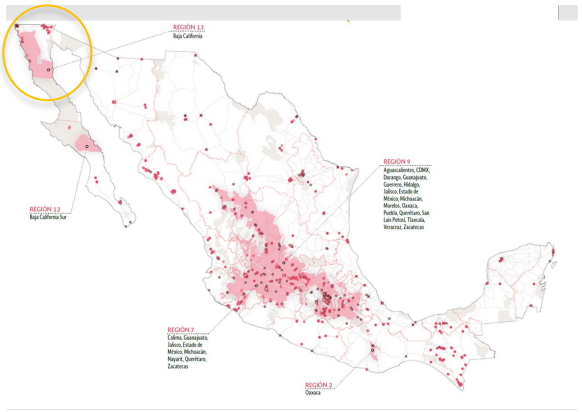
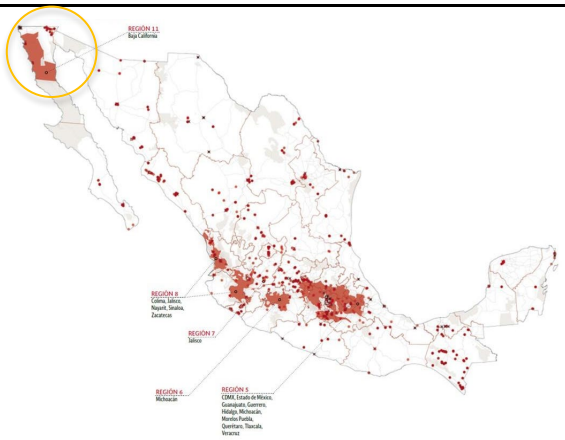
The product of the state of Baja California represents 3.2% of Mexico's GDP (the population represents 3.0% of the country's). The composition of output in primary, secondary and tertiary activities is 2.8%, 41.7% and 55.5% respectively. The state of Baja California stands out in the national economic panorama because the municipalities of Ensenada and San Quintín make an important contribution to the national production of various agricultural and fishery products.

Regarding agricultural production, the state is the number one national producer of onions and flowers; the second national producer of red tomato, strawberry and cotton; and comes third in the production of raspberries, grapes and asparagus. (INEGI, www.cuentame.inegi.org.mx and SIAP: Agricultural and Fisheries Information System). 51.5% of the state's agricultural workers live in the municipalities of Ensenada and San Quintín (http://www.oeidrus-bc.gob.mx/).

Regarding the production of strawberries and raspberries, as mentioned, the Ensenada and San Quintín area has a prominent place at the national level (Map 3) with a production of 122,473 tons and 10,222 tons respectively (as of December 2020, according to SIAP).

Map 3

Strawberry and raspberry growing areas in Mexico

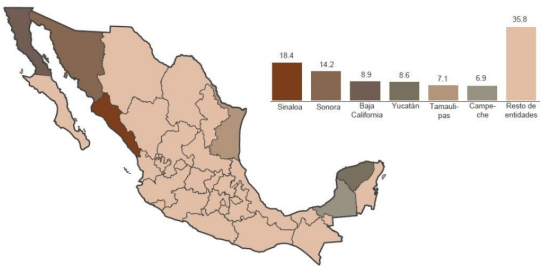
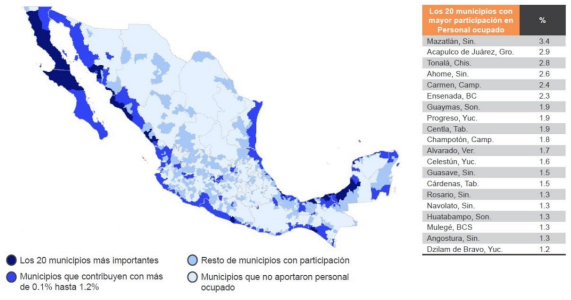
A- Strawberry growing areas	B-Raspberry growing areas
	

Source: Secretary of Agriculture, Mexico (2017).

According to INEGI data, the state of Baja California is one of the three most important states with fishing activities in the country, with a total of 8.9% of the country's total gross fishing production (Map 4A). Likewise, with regard to employment, the municipality of Ensenada ranks fifth at the national level with 2.3% of employment in fishing (Map 4B). Sardines and squid are the main products, according to the volume of production; although the sea urchin and the anchovy are also important (INEGI, www.cuentame.inegi.org.mx).

Map 4

Data on fish production in Mexico and Baja California

A- Total production by state	B- Municipalities with the highest employment in fishing
	

Los 20 municipios con mayor participación en Personal ocupado	%
Mazatlán, Sin.	3.4
Acapulco de Juárez, Gro.	2.9
Tonalá, Chis.	2.8
Ahome, Sin.	2.6
Carmen, Camp.	2.4
Ensenada, BC	2.3
Guaymas, Son.	1.9
Progreso, Yuc.	1.9
Centla, Tab.	1.9
Champotón, Camp.	1.8
Alvarado, Ver.	1.7
Celestún, Yuc.	1.6
Guasave, Sin.	1.5
Cárdenas, Tab.	1.5
Rosario, Sin.	1.3
Navolato, Sin.	1.3
Huatabampo, Son.	1.3
Mulegé, BCS	1.3
Angostura, Sin.	1.3
Dzilam de Bravo, Yuc.	1.2

Source: INEGI (2021).

Industrial activity is relatively less important in Ensenada and San Quintín. Employment in this sector accounts for 10.9% of the industrial employment of Baja California (http://www.oeidrus-bc.gob.mx/). Moreover, only 6% of Baja California's employment in manufacturing is located in Ensenada and San Quintin (according to the statistics of the Program of the Manufacturing Industry, Maquiladora and Export Services for January 2021). The textile industry in these municipalities accounts for 2% of the total output of the state's manufacturing industry, which is lower than average for the textil industry at the national level (3.2%). Nonetheless, there 22,041 workers in the manufacturing sector in Ensenada and San Quintín as of January 2021, of which about 1/3 are textile workers.

4. HOW LIVING WAGE IS ESTIMATED

The Anker methodology used in this report aims to estimate a living wage that allows comparisons between different countries, but that at the same time reflects the situation of workers at the local level. In order to ensure that the living wage estimate is robust and credible for the study location, information from local primary data and secondary data from state or national surveys are used. That is, food prices and housing costs are collected locally through fieldwork, as well as the costs of education, medical care and transportation, with the aim of ensuring that workers receive sufficient payment to satisfy these needs. In the case of local food prices, these are obtained from a representative survey of the different types of establishments where workers buy food in the study area. In the case of local housing, the costs are estimated based on the rental price of those homes that meet both international and national standards for decent healthy housing. With this estimate of the cost of housing, it is easier to estimate of living wages within countries, as well as to help ensure that workers can afford decent housing.[6]

The methodology also requires the participation of local people and organizations to increase its credibility and acceptance by stakeholders. Given the current situation regarding the COVID-19 pandemic, we interviewed about twelve individuals by telephone or videoconference and had discussions with seven focus groups of three workers each via videoconference. These workers work for three different industries, textile, agricultural, and fishing, and live in the municipalities of Ensenada and San Quintín. In these interviews, we asked them about the food they consume and where they buy it; their health care expenses (if applicable); the type and cost of housing; as well as about their children's education and family transportation expenses. It is important to mention that the estimation of the living wage is independent of whether workers receive a living wage or whether individual employers pay a living wage.

The secondary data we use in this study are from the National Survey of Occupation and Employment 2020 (fourth quarter), the National Survey of Household Income and Expenditure 2018, and the Intercensal Survey 2015. All of these are coordinated by the country's statistical office, the National Institute of Statistics and Geography (INEGI). We also relied on the 2012 National Health and Nutrition Survey, coordinated by the Ministry of Health and the National Institute of Public Health, as well as on the official methodology for measuring poverty of CONEVAL (2019c).

[6] The survey and opinion polling company Suasor Consultores carried out a survey of food prices and rental costs in Ensenada and San Quintín. Additionally, they collected information on the cost of basic privately provided medical services in the area. The survey company did not collect information on educational costs. We obtained these costs from interviews and focus groups with workers. We used the same data collection forms as those from other Anker living wage studies previously carried out in other countries—although we adapted and translated them to the Mexican reality. Prior to this fieldwork, the survey team was trained by the authors to ensure that the survey was carried out in accordance with the methodology adopted for the project. This training was through videoconference due to the mobility restrictions determined by the health authorities during the COVID-19 pandemic.

A summary of the methodology is depicted in Figure 2. Panel 1 indicates the main components of the cost of a basic but decent living standard. The definition and estimation of the living wage considers four relevant aspects of the cost of living: the cost of food, the cost of housing, the costs of other essential needs, and a margin to face unforeseen expenses. Panel 2 indicates how the net living wage (i.e. take-home pay required for decency) is estimated from the living costs from panel 1 by taking into consideration the number of full-time equivalent workers in the reference family. Panel 3 indicates how the gross living wage is estimated by also taking into consideration mandatory payroll deductions and income tax that reduce take home pay and would need to be paid on the estimated living wage.

Figure 1: Components of a basic but decent life for a family

Figure 2: From cost of basic but decent life to net living wage

Figure 3: From net living wage to gross living wage

Source: Anker and Anker (2017).

SECTION II: COST OF BASIC BUT DECENT LIFE FOR WORKER AND FAMILY

5. FOOD COSTS

Food cost per person per day is based on the cost of a nutritious model diet that complies with the recommendations of the World Health Organization (WHO) on calories, macronutrients, and micronutrients for people depending on sex, age, height, and activity level consistent with the local food preferences and the country's level of development. This approach to establishing a nutritious diet uses a much stricter nutrition standard than those that only guarantee a sufficient number of calories.

5.1 Establishing a model diet with adequate nutrition

Based on the Schofield equations, recommended by the WHO, it was estimated that the calories required per person per day for our reference family of four (2 adults and 2 children) was 2,374 calories. This requirement is determined taking into account the average adult height in Baja California, of 1.68 m for men and 1.56 m for women (Ensanut 2012). It also assumes that one of the adults in the reference family has vigorous physical activity (for example, an agricultural or fishing worker) and that their spouse/partner and children have a moderate level of physical activity.

To develop our model diet, we first considered the rural and urban food baskets used in the official poverty estimate for Mexico (Coneval 2019b). Then, we adjusted consumption levels and basket components to achieve adequate nutritional levels. This was done while maintaining the cost of the diet relatively low. For example, we increased the amount of beans, eggs and chicken in the diet and decreased the amount of pork and beef, products that are more expensive source of protein. We also ensured that the edible percentage of fish and beef reflects the fact that in both cases workers typically purchase fish fillets and boneless steak.

Regarding fruits, however, we kept the same composition as in the official food basket (which includes banana, orange and apple). In the focus groups with agricultural, fishing and textile workers, they mentioned that the fruit intake is high in their families. Because apple is a relatively expensive fruit, we first considered replacing it with pineapple, which is also a widely consumed fruit in the area. However, the edible percentage of pineapple is much lower than the edible percentage of apple, so the resulting cost per edible gram was higher for pineapple. Thus, it turned out that the fruits included in our model diet were the same as in the official poverty line food basket.

Our model diet, which meets WHO nutrition standards, has:

- 2,374 calories.
- 13.1% of calories come from proteins which is between the 10-15% recommendation of WHO. Proteins come from a variety of sources, and in particular beans and animal sources.
- 27.5% of calories come from fats. This is within the WHO recommended range of between 15% and 30%.
- 59.4% of calories come from carbohydrates. This is within the WHO recommended range of between 55% and 75% of calories should come from carbohydrates.
- The diet includes 2 cups of milk per day for children.

- 294 grams of vegetables and fruits per day (350 grams per day including legumes), to provide enough micronutrients and minerals.
- Limited number of grams of sugar (30) and cooking oil (30).

Foods in a model diet are consistent with local preferences. For example, chili peppers and tortillas were included in the diet. Likewise, bottled water is included in the model diet because its consumption is very common in the study area, as well as in Mexico in general. In this case, one liter of bottled water is included per person per day.

5.2 Determining local food prices

To estimate the cost of the model diet, we collected prices of fresh and processed foods in the municipalities of Ensenada and San Quintín during the month of January 2021. Prices of local foods corresponded to the types, qualities, and quantities/sizes of foods that workers in the study area usually buy. The set of establishments visited was determined based on the results of focus group discussions with farm workers about the types of foods they eat regularly and the local grocery and retail stores, supermarkets, and open markets where workers typically shop (Image 2). Information was collected on the price, weight, presentation and brand of 4,805 products (3,061 in Ensenada and 1,744 in San Quintín) for 87 different types of food. Food items were not included in the final model diet when they were not widely available or when less expensive options were available. Therefore, we used the prices of 2,840 food items to estimate the costs of our model diet (1,826 for Ensenada and 1,014 for San Quintín).

To determine the price of each food item (e.g. chicken, tomato, potato, rice, pasta, coffee, sugar, etc.) in each of the municipalities of the study, we proceeded as follows. First, we discarded the highest price and lowest price of each product. Second, we computed the average, standard deviation and quartiles of the distribution of the remaining prices. In a third step, we used box-plot diagrams to identify extreme prices (outliers). We used the convention that a price is an outlier or extreme if it lies outside the bounds of the box-and-arms plot. The lower bound is determined by [quartile 1 - 1.5 × (quartile 3 - quartile 1)], while the upper bound is [quartile 3 + 1.5 × (quartile 3 - quartile 1)]. Finally, the fourth step depended on the presence or absence of extreme values. For products without outlier or extreme prices, we used the average price calculated in the second step. For products with extreme prices, we eliminated the outliers and recalculated the average price over the remaining observations. We also explored if any unusually high prices were due to packaging with small quantities. This was sometimes the case with instant coffee for example; we thus excluded prices for coffee sold in packages with less than 170 grams from our average price calculation.

5.3 Cost of the model diet

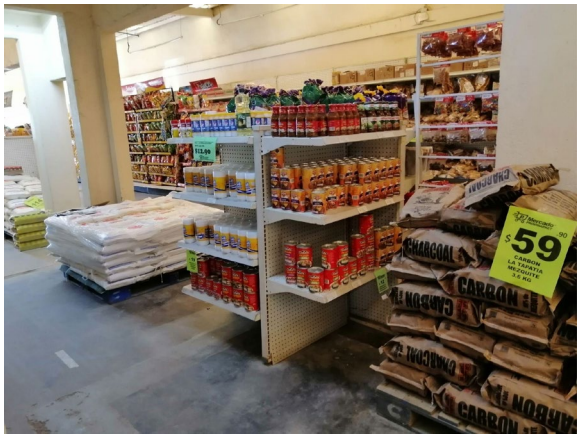
Once the average price for each food item was estimated, this information was entered into the model diet, and the cost of the model diet per person per day was computed. The resulting value is MXN (Mexican pesos) 44.91 for Ensenada and MXN 45.34 for San Quintín (Table 2A and Table 2A). We, then, added some additional expenses after considering that the food budget must be sufficient, not only to cover the cost of nutrients and minimum calories, but also to contribute to the goals of dignity and well-being associated with food:

These additional expenses are:

- Salt, spices, sauces and condiments (1% of the cost of the model diet as this is the percentage found in household expenditure survey data);

Image 2
Photos of food stores in Ensenada and San Quintín

Image 2 (cont.)
Food stores in Ensenada and San Quintín



- Food not consumed because it is lost during cooking or storage, because it is not in good condition, or because it is discarded (4%);
- An allowance for additional variety in the model diet, whether for taste, quality or seasonal availability of food and variation in prices (15%).

With these additional expenses, the final cost of the model diet per person per day is MXN 53.90 for Ensenada and MXN 54.40 for San Quintín (Table 2A and Table 2B). It is worth noting that the cost of our model diet is very similar for Ensenada and San Quintin. To obtain the family's food budget per day, we multiplied the cost per person of the model diet by the number of members of a typical family in the study area (4 persons, see below). To obtain the monthly value, we multiplied the family´s budget per day by 365 days and divided it into 12 months. Our model diet is more expensive than Coneval's model diet for rural areas (MXN 43.78) but cheaper than Coneval's model urban diet (MXN 57.52). In addition, our living wage model diet is closer to the concept of a decent diet, because it entails a more adequate balance of nutrients and allows for a greater variety of meals to be prepared.

Table 2A
Composition and cost of the model diet per person, Ensenada
(MXN, January 2021)

Food item		Edible grams	Purchased grams	Cost per kilo	Price
1.A Cereals and grains	Tortilla (maize)	244	244	19.50	4.77
	Rice, white medium	36	36	26.00	0.94
	Bread, dulce	36	36	129.80	4.73
1.B Prepared cereals	Bread, white	34	34	53.13	1.79
	Macaroni, spaghetti, dry, whole wheat	36	36	35.00	1.26
2. Roots and tubers (starchy)	Potato	54	72	19.87	1.43
	Maize (corn) whole grain yellow or white	49	49	36.36	1.78
3. Pulses, legumes, beans	Beans, pinto	56	56	32.00	1.79
4.A Milk	Milk (cow)	180	180	18.00	3.24
4.B Other Dairy	Queso blanco	12	12	101.00	1.16
5. Eggs	Chicken egg	44	50	41.67	2.08
6. Meats & Fish	Chicken broiler or fryer meat & skin raw (no gibl	61	82	25.00	2.04
	Fish, white	12	12	73.50	0.89
	Bottom round 1/8" fat	12	13	140.00	1.75
	Pork, loin and shoulder trimmed	24	33	67.50	2.22
	Ground beef 90 % lean	12	12	100.00	1.21
7.A Dark green leafy vegetables	Spinach	42	58	31.82	1.86
7.B Other vegetables	Onion	42	47	18.00	0.84
	Tomato	42	46	16.00	0.74
	Carrots	42	47	17.93	0.85
8. Fruits	Apple	42	47	35.90	1.68
	Orange	42	58	20.54	1.18
	Banana	42	66	19.68	1.29
9. Oils & fats	Oil for cooking	30	30	35.00	1.05
10. Sugar	White sugar	30	30	27.00	0.81
11. Nonalcoholic beverages (e.g. coffee or tea)	Coffee	2	2	370.59	0.67
12. Other	Chili peppers	10	12	23.00	0.27
	Drinking water	1000	1000	0.60	0.60
				Subtotal excluding additional costs	**44.91**
				Total, including additional costs	**53.90**

Additional 1: Percentage added for salt, spices, sauces, and condiments.	1%
Additional 2: Percentage for spoilage & waste.	4%
Additional 3: Percentage added for variety.	15%

Table 2B
Composition and cost of the model diet per person, San Quintín
(MXN, January 2021)

Food item		Edible grams	Purchased grams	Cost per kilo	Price
1.A Cereals and grains	Tortilla (maize)	244	244	19.50	4.77
	Rice, white medium	36	36	26.73	0.96
	Bread, dulce	36	36	129.80	4.73
1.B Prepared cereals	Bread, white	34	34	53.13	1.79
	Macaroni, spaghetti, dry, whole wheat	36	36	35.00	1.26
2. Roots and tubers (starchy)	Potato	54	72	18.76	1.35
	Maize (corn) whole grain yellow or white	49	49	32.75	1.60
3. Pulses, legumes, beans	Beans, pinto	56	56	33.00	1.85
4.A Milk	Milk (cow)	180	180	18.00	3.24
4.B Other Dairy	Queso blanco	12	12	110.00	1.27
5. Eggs	Chicken egg	44	50	43.86	2.19
6. Meats & Fish	Chicken broiler or fryer meat & skin raw (no gibl	61	82	24.00	1.96
	Fish, white	12	12	73.50	0.89
	Bottom round 1/8" fat	12	13	139.00	1.74
	Pork, loin and shoulder trimmed	24	33	67.50	2.22
	Ground beef 90 % lean	12	12	100.00	1.21
7.A Dark green leafy vegetables	Spinach	42	58	31.82	1.86
7.B Other vegetables	Onion	42	47	20.00	0.93
	Tomato	42	46	19.52	0.90
	Carrots	42	47	20.99	0.99
8. Fruits	Apple	42	47	37.18	1.74
	Orange	42	58	18.68	1.07
	Banana	42	66	20.49	1.34
9. Oils & fats	Oil for cooking	30	30	34.71	1.04
10. Sugar	White sugar	30	30	28.00	0.84
11. Nonalcoholic beverages (e.g. coffee or tea)	Coffee	2	2	400.00	0.72
12. Other	Chili peppers	10	12	22.65	0.27
	Drinking water	1000	1000	0.60	0.60
				Subtotal excluding additional costs	**45.34**
				Total, including additional costs	**54.40**

Additional 1: Percentage added for salt, spices, sauces, and condiments.	1%
Additional 2: Percentage for spoilage & waste.	4%
Additional 3: Percentage added for variety.	15%

6. HOUSING COSTS

The cost of local healthy housing was estimated with: (i) primary data on the rental prices of houses in the study areas that meet our healthy housing standard, and (ii) utility costs based on data from household surveys.

6.1 Local healthy housing standard

To determine our local housing standard, we used international standards for healthy housing from the WHO, UN, ILO and UN-Habitat, as reported in Anker and Anker (2017), as well as official national standards and norms. Table 3, column 2, presents the minimum international standards, while column 3 lists the national standards. Coneval defined these national standards to identify the population that suffers from deprivation in relation to housing and, therefore, lives in conditions associated with poverty. Columns 4 and 5 of Table 3 present some figures on the percentage of homes that meet the Coneval standard in the municipalities studied (according to the 2020 Census). Given that the Coneval standard reflects minimum requirements for a healthy home and that the degree of local compliance with these standards is high and higher than the international minimum standards, we decided to adopt the national standard to determine the local standard.

According to the 2020 Census figures, both in Ensenada (predominantly urban) and San Quintín (predominantly rural and small towns) 96% or more of the homes meet the national standard for walls, roof and floor, and 95% or more of the houses conforms to the standard for electricity and safe toilet. Differences between both municipalities in terms of the degree of compliance with the healthy housing standards are more visible in the case of living spaces in the home, particularly with regard to the kitchen, and in the case of access to piped water and water drainage.

In Ensenada, 97% of homes have the kitchen in a separate room inside the home with good ventilation, in San Quintín 85% of homes have this characteristic (Table 3). In relation to the size of the dwelling, the 2020 Census does not provide data on the square meters of floor space that the dwellings have. In this study we adopt the minimum standard established at the national level by the National Housing Commission (Conavi), which is 50 square meters. However, from the 2020 Census we know the average number of occupants per dwelling (3.2 and 3.6 in Ensenada and San Quintín) and the average number of occupants per room (0.9 and 1.2, respectively). From these figures, we calculated the number of rooms per dwelling, which is 3.5 in Ensenada and 3 in San Quintín. If we assume that one of those rooms is the kitchen, which is true in most cases, as we saw before, then we know that on average there are at least 2 rooms that can be used to sleep in San Quintín and 2.5 rooms in Ensenada. This may be enough if the average number of occupants in the homes is less than 4. It should not be forgotten that these are averages, so there may be many homes with fewer spaces, especially in San Quintín. In fact, in interviews and focus groups conducted in San Quintín, some workers mentioned that they live with their partner and their children in a single room. One or two workers even mentioned that they also cook in that room. However, as we said, our standard to determine if the home is acceptable for 4 people will be the aforementioned 50 square meters of living space and that the kitchen is in a separate room inside the house.

The differences between Ensenada and San Quintín are even greater in terms of having piped water and drainage in the house. While in the first municipality 84% of the homes have access to piped water inside or outside the home but on the same property, in San Quintín only 66% meet this requirement. Since this

is a minimum requirement for the household not to be considered poor in terms of housing, we maintain the same standard for San Quintín as that adopted for Ensenada.

The Census does not report the environmental situation around the homes. For example, it does not report if there are sewage drains on the surface, pollution, or if the houses are built in places exposed to floods or landslides. To get an estimate of the situation in this regard, in Table 3, last row of columns 4 and 5, we report the percentage of homes with drainage connected to the public network or to a septic tank in each municipality. This reaches 95% of the houses in Ensenada and only 56% in San Quintín. As in the case of piped water, for drainage we maintain the same standard for San Quintín and Ensenada.

Table 3
International, national and local standards for healthy housing

Housing characteristics	International minimum requirements	Housing standard for study area based on national standard	Compliance in Ensenada (a mostly urban area)	Compliance in San Quintín (a mostly rural area)
Materials				
Walls	Durable material providing protection from elements.	Durable material providing protection from elements: the non-acceptable standards are waste material, cardboard, metal or asbesto sheet, mud.	97%	96%
Roof	Durable material without leaks.	Durable material without leaks: the non-acceptable standards are waste material or cardboard sheet.	98%	99%
Floor	Durable material.	Durable material: the non-acceptable standard is dirt floor.	97%	96%
Amenities				
Toilet	At least pit latrine with slab.	Flush toilet or pit latrine with slab.	99%	99%
Water	Safe water not far from home (maximum 30 minutes total collection time per day).	Piped water inside the home or outside the home but on the grounds.	84%	66%
Electricity	Yes generally, but not required if not common in study area.	House with electricity.	98%	95%
Ventilation & Lighting				
Ventilation quality	Good ventilation. Especially important when cooking indoors.	Good ventilation. Kitchen with good evacuation if cook indoors.	N.A.	N.A.
Lighting	Adequate	Electricty	N.A.	N.A.
Number of windows	Sufficient for adequate lighting and ventilation.	Sufficient for adequate lighting and ventilation. Generally at least one window per room.	N.A.	N.A.
Living Space				
Number of square meters of living space	≥30 sq. m. (increases with economic development).	50 m^2, according to National Housing Commission.	N.A.	N.A.
Kitchen location	If kitchen is inside house, adequate ventilation for cooking needed.	Inside house in separate room with adequate ventillation.	97%	85%
Condition				
	In good state of repair.	In good state of repair.	N.A.	N.A.
Environment				
	Not a slum.	Not a slum.	N.A.	N.A.
	No site hazards such as: surface water drainage, industrial pollution, danger of landslides, flood zone.	No site hazards such as: surface water drainage, industrial pollution, danger of landslides, flood zone.	95%	56%

Source: 2020 National Population and Housing Census, and Coneval's and Conavi's guidelines for healthy housing.

6.2 Rental cost for local healthy housing

We obtained rental costs during visits to homes in the study area that were available for rent. This allowed us to verify if these homes met our standard of housing or not and if they were in acceptable condition. It also allowed us to identify unusual extreme values, both high and low, of some of the decent homes available for rent, which were associated with location, access to transport, security and cleanliness in the

surroundings, etc. Image 3 includes photos of a selection of acceptable and unacceptable houses in the study area to give readers a better understanding of housing conditions in the study area.

Image 3
Homes available for rent in Ensenada and San Quintín
[Selection of acceptable (left) and non-acceptable (right) homes]






In the field survey, information was collected on 103 homes, 73 in Ensenada and 30 in San Quintín, which were available for rent in January 2021. Information was obtained on the size of the dwelling (number of square meters of living space); number and types of rooms; materials of the walls, floors, and roofs; access to services; general conditions of the house and in the surroundings areas; and the cost of the rent per month.

Analysis of this information made it possible to identify 63 homes that met our healthy housing standard, 50 in Ensenada and 13 in San Quintín. Tables 4A and 4B show the complete list of homes with and without acceptable standards, together with their rental price, size and number of rooms. In general, acceptable dwellings meet all the criteria presented in Table 3. Dwellings that do not meet them in almost all cases are because the living space is insufficient, the kitchen is not in a separate room, or the bathroom is unsanitary. These situations are the ones reported in Tables 4A and 4B.

As in other urban areas of Mexico, in Ensenada for example we find various problems in the surroundings of all homes, regardless of whether the houses meet the criteria for healthy housing or not. We found problems with public safety, with the state of the pavement or street lighting, with garbage or sewage in the streets. As it is not possible to establish the degree to which the presence of these problems really affects the environment in each case, we could not associate these aspects with the rental price of the house. Only in one case of very low-cost housing in Ensenada was it possible to establish a link with the conditions around the dwelling (Table 4A).

Based on the rental prices of acceptable houses, we estimated an average rent cost of MXN 3,078 in Ensenada and MXN 2,158 in San Quintín. However, we decided to use the median rents of acceptable homes, instead, for the calculation of housing costs; these are slightly lower at MXN 3,000 and MXN 2,000, respectively. We use the median rent costs for two reasons. First, because the average values can be biased by extreme values of the rents. In Ensenada, in particular, we find rents of more than MXN 4,000. These costs are sometimes associated with the quality of construction materials, which is somewhat above the basic standard. Second, because the acceptable homes we visited have an average living space of 93.7 m^2 and 85.8 m^2 respectively (and on average 3.4 and 3.2 rooms) in each municipality – which is considerably larger than our basic healthy housing living space standard of at least 50 m^2. The fact that acceptable houses with 50-70 m^2 can be rented at a median price of MXN 2,900 in Ensenada and MXN 2,000 in San Quintín also support our choice of rental prices.

A characteristic of the rental housing market in these two municipalities is that the median rental cost is the same for homes with an acceptable and unacceptable standard. Studying the reasons behind this result is not the objective of this document, and there is a vast literature on rents and housing markets, but it seems to indicate the presence of a relatively low supply of homes for rent in the segment of housing for low-income families, both in Ensenada and San Quintín.

Table 4A

Rental prices for houses visited, in MXN of January 2021: Ensenada

Home	Sq. Meters	Number of Rooms	Rent (MXN Jan 2021)	Acceptable standard?	Observations
1	159	3	4,500	Yes	
2	69	4	4,200	Yes	
3	68	4	4,000	Yes	
4	93	5	4,000	Yes	
5	67	4	4,000	Yes	
6	67	3	3,800	Yes	
7	87	5	3,800	Yes	
8	48	3	3,800	No	Insufficient living space
9	63	4	3,700	Yes	
10	62	3	3,600	Yes	
11	113	4	3,500	Yes	
12	43	3	3,500	No	Insufficient living space
13	46	4	3,500	No	Insufficient living space
14	70	4	3,500	Yes	
15	47	3	3,500	No	Insufficient living space
16	74	4	3,500	Yes	
17	100	4	3,500	Yes	
18	83	3	3,500	Yes	
19	172	3	3,500	Yes	
20	120	3	3,500	Yes	
21	182	4	3,500	Yes	
22	87	3	3,500	Yes	
23	110	3	3,500	Yes	
24	50	3	3,300	No	Insufficient living space
25	52	4	3,300	Yes	
26	84	3	3,300	Yes	
27	49	4	3,200	No	Insufficient living space
28	71	4	3,200	Yes	
29	184	3	3,200	Yes	
30	38	3	3,200	No	Insufficient living space; the kitchen is not in a separate room
31	49	3	3,000	No	Insufficient living space
32	49	3	3,000	No	Insufficient living space
33	73	4	3,000	Yes	
34	44	3	3,000	No	Insufficient living space
35	49	3	3,000	No	Insufficient living space
36	88	4	3,000	Yes	
37	110	3	3,000	Yes	
38	63	4	3,000	Yes	
39	91	3	3,000	Yes	
40	86	3	3,000	No	The kitchen is not in a separate room
41	84	2	3,000	No	The kitchen is not in a separate room
42	39	3	3,000	No	Insufficient living space
43	46	3	2,900	No	Insufficient living space
44	39	3	2,900	No	Insufficient living space
45	106	4	2,800	Yes	
46	52	3	2,800	Yes	
47	56	3	2,800	Yes	
48	53	3	2,800	Yes	
49	60	3	2,800	Yes	
50	92	3	2,800	Yes	
51	155	3	2,800	Yes	
52	42	3	2,700	No	Insufficient living space
53	45	3	2,700	No	Insufficient living space
54	191	4	2,700	Yes	
55	39	3	2,600	No	Insufficient living space
56	52	3	2,600	Yes	
57	90	3	2,600	Yes	
58	32	3	2,500	No	Insufficient living space
59	52	3	2,500	Yes	
60	63	3	2,500	Yes	
61	52	3	2,500	Yes	
62	123	3	2,500	Yes	
63	96	3	2,500	Yes	
64	94	3	2,500	Yes	
65	156	3	2,500	Yes	
66	85	3	2,300	Yes	
67	69	2	2,200	Yes	
68	158	4	2,200	Yes	
69	44	4	2,000	No	Insufficient living space
70	34	3	1,800	No	Insufficient living space
71	79	2	1,800	Yes	
72	100	3	1,800	Yes	
73	84	3	1,200	No	Toilet is unsanitary, garbage and mud around the house.

Table 4B
Rental prices, in MXN of January 2021: San Quintín

Home	Sq. Meters	Number of Rooms	Rent (MXN Jan 2021)	Acceptable standard?	Observations
1	114	5	3,500	Yes	
2	150	4	3,200	Yes	
3	72	5	3,000	Yes	
4	146	4	3,000	No	The kitchen is not in a separate room
5	162	4	3,000	No	The kitchen is not in a separate room
6	39	4	3,000	No	Insufficient living space
7	50	4	2,900	No	Insufficient living space
8	37	4	2,800	No	Insufficient living space
9	74	4	2,800	Yes	
10	103	4	2,800	No	The kitchen is not in a separate room
11	52	5	2,700	Yes	
12	55	4	2,500	Yes	
13	48	4	2,500	No	Insufficient living space
14	45	4	2,500	No	Insufficient living space
15	53	4	2,000	Yes	
16	50	4	2,000	No	Insufficient living space; the bathroom is outside the house
17	33	4	2,000	No	Insufficient living space
18	32	3	2,000	No	Insufficient living space
19	57	4	1,800	Yes	
20	41	3	1,800	No	Insuffcient living space
21	60	3	1,500	Yes	
22	49	4	1,500	No	Insuffcient living space; shower does not work
23	111	4	1,500	Yes	
24	150	4	1,500	No	The kitchen is not in a separate room
25	121	3	1,400	No	The kitchen is not in a separate room
26	104	5	1,250	Yes	
27	108	4	1,200	Yes	
28	105	4	1,100	Yes	
29	49	3	800	No	No electricity; insufficient living space; toilet shared with another home
30	104	3	550	No	The kitchen is not in a separate room; no toilet, latrine shared with another home

6.3 Utility costs and routine maintenance and repairs

For the estimation of the costs of utilities, basic housing services, and routine maintenance and repairs, we used the data from the 2018 National Income and Expenditure Survey (ENIGH) for expenditures on maintenance and housing repair services, water, garbage collection, electricity, gas and other fuels, etc. We felt that these survey data would be more representative of these costs than data from the relatively small number of local houses visited in the local housing data collection part of our study.

We estimated these expenses for rural and urban households of the State of Baja California, and for household income deciles 4, 5 and 6 as the reference group, in both cases. This group is clearly above the poverty while not being high income. In the case of the urban (rural) population, monthly household expenses for electricity, gas and other fuels are MXN 932 (MXN 738); water services and garbage collection expenses are MXN 13 (MXN 11); and costs of maintenance and repair of housing are MXN 46 (MXN 53). As mentioned in section 3, Ensenada's population is mainly urban, while San Quintín's is mainly rural. Therefore, we used our estimate of total utility costs in urban areas as a proxy for their value in Ensenada (MXN 991) and our estimate of total utility costs in rural areas to impute their value in San Quintín (MXN 802). We then updated these values by the inflation rate of energy and government tariffs in the official CPI data during the period between August 2018 and January 2021 (9.88%).

7. COSTS OF NON-FOOD NON-HOUSING (NFNH) GOODS AND SERVICES

For practical reasons, the cost of all other goods and services (in addition to food and housing) to satisfy essential needs is estimated based on household income and expenditure survey data. NFNH costs include expenses such as alcohol and tobacco, clothing and footwear, home equipment and household furnishings, medical care, education, transportation, telecommunications, recreation and culture, restaurants and hotels, and other miscellaneous costs. We then revise these costs (see the next subsection) to ensure that sufficient funds for medical care and education are included in NFNH, because adequate health care and children's education through secondary school are considered as human rights in the Anker methodology.

Before using these survey data, we made several adjustments. First, we excluded tobacco expenses (which we do not consider necessary for reasons of decency). Second, we assumed that half of the cost of the meals purchased outside the home is properly due to the food included in these meals, and the other half is due to services, profits, and overheads. For this reason, we assigned one-half of these costs to be food expenditures and the other half to be NFNH expenditures.

It is important to mention that we did not adjust the reported transport spending from the survey, because in the focus groups workers emphasized that possession of a private vehicle is necessary for a decent standard of living in the area. Public transport is non-existent or scarce in the municipality of San Quintín, so workers and their families need a car to go to the supermarket or make a visit to the doctor. If they do not have one, they borrow it. Sometimes to perform these activities, they must travel to other localities. In the case of Ensenada, the workers interviewed individually and in focus groups discussions mentioned that the public transport service is insufficient and insecure.

We estimated the NFNH costs with data from the National Income and Expenditure Survey of 2018, which is available for rural and urban populations of the state of Baja California. For reasons akin to those mentioned in sections 3 and 6a, here we estimated the NFNH costs in Ensenada and San Quintín from the urban and rural estimates of NFNH costs in the state of Baja California. This allowed us to estimate the NFNH/Food ratio [expenses not related to food and housing / food expenses] for both municipalities, which we then use in the calculation of the living costs and living wage. The ratio is 1.65 for rural areas (Table 5A) and 1.67 for urban areas of Baja California (Table 5B).

The relatively low value estimated for the NFNH/Food ratio in urban areas compared to rural areas is an unexpected finding. However, in Baja California families in rural areas allocate a higher percentage of their spending to private transportation, telecommunications, education and health care services than families in urban areas. This is consistent with the testimonies of the interviewed workers and focus groups carried out in San Quintín (the area that is mainly rural, as already mentioned). They commented that there is a shortage of education and health services in the area, and that the distance and isolation of certain populations leads to a more intensive use of telecommunications and private transportation services. This helps explain the finding that households spend a higher percentage of their budget on these services in rural areas than in urban areas.

Finally, we estimate the preliminary non-food and non-housing expenses (NFNH) of the workers and their families by multiplying the NFNH/Food ratio indicated above by the cost of the model diet for the reference size family. This equals MXN 10,943 (1.67 x the cost of the model diet) for the reference family in Ensenada municipality, and MXN 10,903 (1.65 x the cost of the family model diet) for the reference family in San Quintín.

Table 5A

Monthly household expenses in Baja California: Rural

Major expenditure group	Secondary data			Adjustments	
	Sub-major expenditure group		% Exp. in secondary data	Adjustments explanation	% after adjustment
FOOD					
	Food & non-alcoholic beverages		26.8%	2.4% added for the food in meals away from home (Restaurants)	29.2%
HOUSING			22.4%		22.4%
NON-FOOD AND NON-HOUSING (NFNH)					
Alcohol and tobacco		Alcohol	0.3%	No adjustment	0.3%
		Tobacco	Excluded	Excluded as unnecessary	Excluded
Clothing & footwear			3.8%	No adjustment	3.8%
Household contents and appliances			1.1%	No adjustment	1.1%
Healthcare			2.0%	No adjustment	2.0%
Education			6.5%	No adjustment	6.5%
Transport					
Purchase of personal vehicles			1.1%	No adjustment	1.1%
Maintenance and operation of personal vehicles			12.9%	No adjustment	12.9%
Passenger transport sevices			3.0%	No adjustment	3.0%
Communication			2.3%	No adjustment	2.3%
Recreation & culture			0.7%	No adjustment	0.7%
Restaurants			4.8%	Transfer 50 % of this to food as around 50 % of cost of meals away from home is for the food in them	2.4%
Miscellaneous goods & services			12.0%	No adjustment	12.0%
TOTAL NFNH			**50.5%**		**48.1%**
NFNH/Food ratio			**1.88**		**1.65**

Source: ENIGH 2018 (INEGI)

Table 5B

Monthly household expenses in Baja California: Urban

Major expenditure group	Secondary data			Adjustments	
	Sub-major expenditure group		% Exp. in secondary data	Adjustments explanation	% after adjustment
FOOD					
	Food & non-alcoholic beverages		24.0%	3.2% added for the food in meals away from home (Restaurants)	27.2%
HOUSING			27.3%		27.3%
NON-FOOD AND NON-HOUSING (NFNH)					
Alcohol and tobacco		Alcohol	0.3%	No adjustment	0.3%
		Tobacco	Excluded	Excluded as unnecessary	Excluded
Clothing & footwear			3.7%	No adjustment	3.7%
Household contents and appliances			1.3%	No adjustment	1.3%
Healthcare			1.0%	No adjustment	1.0%
Education			5.7%	No adjustment	5.7%
Transport					
Purchase of personal vehicles			1.0%	No adjustment	1.0%
Maintenance and operation of personal vehicles			11.6%	No adjustment	11.6%
Passenger transport sevices			4.0%	No adjustment	4.0%
Communication			2.3%	No adjustment	2.3%
Recreation & culture			1.1%	No adjustment	1.1%
Restaurants			6.3%	Transfer 50 % of this to food as around 50 % of cost of meals away from home is for the food in them	3.2%
Miscellaneous goods & services			10.0%	No adjustment	10.0%
TOTAL NFNH			**48.3%**		**45.2%**
NFNH/Food ratio			**2.01**		**1.67**

Source: ENIGH 2018 (INEGI)

8. POST CHECKS TO ENSURE SUFFICIENT FUNDS AVAILABLE FOR HEALTH CARE AND EDUCATION

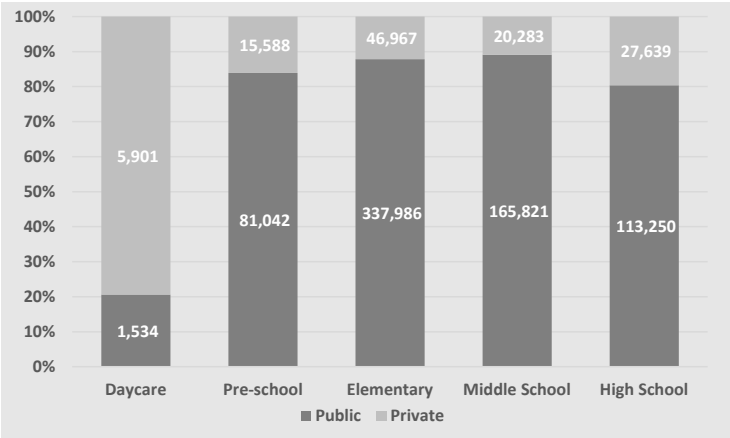
Education through secondary school of children and adequate health care of for all are considered human rights in the Anker and Anker Methodology (2017), which is why we investigated in this section whether the amount needed to cover these services included in our preliminary estimate of non-food non-housing (NFNH) costs of goods and services is sufficient.

8.1 Education

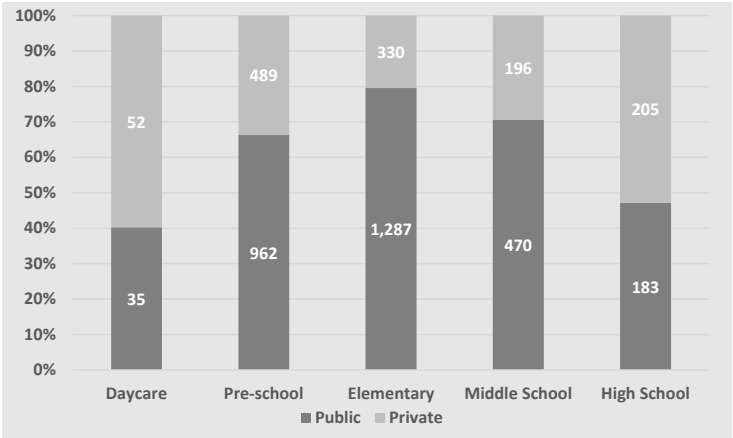
There are about 800,000 students registered in basic mandated education (pre-school through middle school) and high school in Baja California.[7] Boys and girls participate evenly according to their share in the population (51% and 49%). The preschool period is for children between 3 and 5 years of age. The educational system includes both publicly and privately funded schools. From pre-school to high school, 80% or more of the students attend public schools. Daycare is not mandated in the country, a fact that can explain why only 20% of children in daycare attend a public educational institution (Figure 3A). The share of private schools at all educational levels, except daycare, is much higher than the share of private-school students (Figure 3B), which means each public school has on average more students than each private school.

Figure 3
Number of students and schools in Baja California, by level and source of funding (2020-2021)

A- Students



B- Schools



Almost 97,000 students are registered in schools located in the municipality of Ensenada (12.1%), and 31,000 are in schools located in San Quintín (3.9%). Schools are on average smaller in San Quintín and Ensenada than in the rest of the municipalities of Baja California, except at high-school level (Figure 4A).

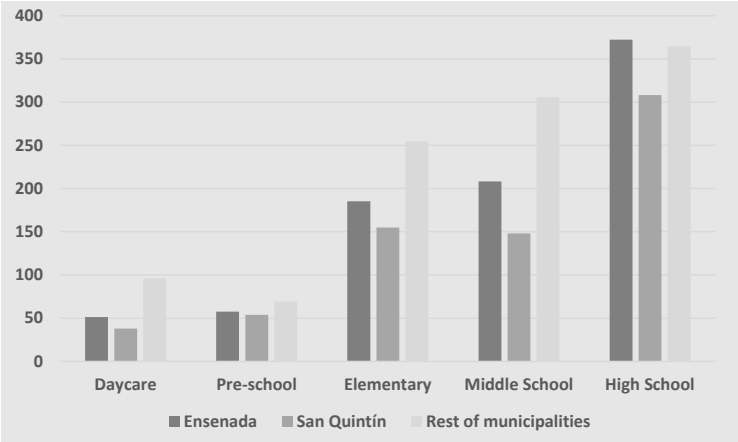
[7] All the statistics reported in this section for the state and municipalities of Baja California refer to the school year 2020-2021, and were obtained from the Secretary of Education of Baja California's website: http://www.educacionbc.edu.mx/publicaciones/estadisticas/2021/

This could be related to the fact, already mentioned in section 3, that Ensenada and, in particular, San Quintín, have a much lower population density.

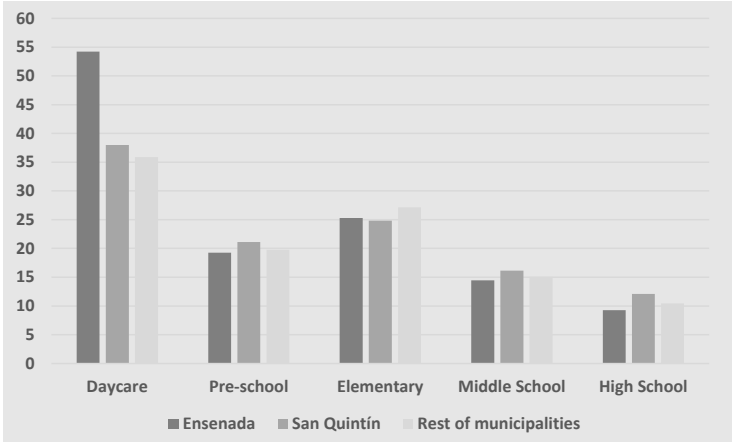
The average number of students per teacher, however, does not seem to be different in the study municipalities relative to the rest of the municipalities in the Baja California (Figure 4B). There are about 20 students per teacher in pre-school, 26 students per teacher in elementary school, 15 in middle school and 11 in high school. San Quintín shows a little disadvantage here in pre-school, middle school and high school.

Figure 4
Indicators of education quality in Baja California, by level and municipalities (2020-2021)

A-Students per school



B-Students per teacher



In relation to the cost of education for our reference family, the amount for educational expenses that is already included in the preliminary NFNH costs for the urban areas and rural areas of the state of Baja California is MXN 1,379 and MXN 1,472 per month respectively. This was estimated using information that 5.7% and 6.5% of the total spending in 2018 of urban and rural households in income deciles 4-6 is for education - which represents 12.6% and 13.5% respectively of urban and rural adjusted NFNH expenditure (i.e. 5.7/45.1 and 6.5/48.1, see Table 5A and Table 5B). Multiplying these percentages by the preliminary NFNH estimates yields the amounts MXN 1,379 and MXN 1,472. Per the discussion in section 3 and 6, we assume that these two amounts are good proxies for the funds available for education in the preliminary NFNH budgets of reference families in Ensenada and San Quintín, respectively.

Our conclusion is that these amounts, already included in the preliminary NFNH costs, are sufficient to afford the education expenses of children attending public schools in the municipalities studied. During our interviews and focus groups in Ensenada and San Quintín, workers reported the household expenditures related to their children's education.

All of them reported that public schools do not charge any fee to students attending grades between pre-school and middle school (that is, the mandated 12-year basic education program established by the government). Instead, on average the high school fees reported by workers are MXN 2,050 per year.

Most parents consulted agreed that their main educational expenses during the period between pre-school and middle school are on school uniforms and school supplies. A simple average of the amounts

reported yields MXN 1,275 needed for school uniforms per year and per child in pre-school and elementary school, and MXN 1,000 in middle school (these amounts do not include expenditures on shoes). The amounts for school supplies are MXN 1,100 and MXN 1,190, respectively (Table 6). High school students do not need a uniform to attend school, and the cost of school supplies was estimated to be MXN 1,000 per year.

In some parts of Mexico public schools provide meals to students for a small fee, and some families that send their children to public school pay for privately provided school bus services. This, however, was not the case of most of the workers consulted for this study in Ensenada and San Quintín. Children attending pre-school through middle school take a lunch bag to school, and the cost of the food children take to school is included in the family food budget. However, high school students usually get some pocket money from their parents to buy snacks, sandwiches and bottled water or juice. The workers consulted considered that MXN 15 per day is enough for these expenditures, which add up to MXN 2,700 per year (assuming high schools run for twenty days every month, nine months per year). Regarding transportation to and from school, the workers consulted mentioned that either they take their children to school by car or they walk them to school, with older children in middle school and high school also using public transportation. Therefore, also for the case of transportation to school, these costs are already included in the family budget for transport services.

Considering all these information, we estimate the *minimum* educational expenses per child per month to be MXN 418 among the workers interviewed (Table 6). This amount is smaller than the educational expenses included in the preliminary NFNH cost estimates previously discussed, which reflect the situation of households in deciles 4 to 6. It is important to notice that the MXN 418 figure does not include expenditures that households in Mexico might consider necessary for their children's education, but that the workers interviewed for this study cannot afford. Examples of these expenditures are sports, art or foreign language (usually English) or classes after school, which most public schools in Mexico do not provide in the quantity or quality needed. The school might also require the payment of fees for lunch, school bus, yearbook's photo or graduation gown. [See a related discussion about this important topic in Aban Tamayo et al (2020), chapters 4 and 7]. Note, however, that a sufficient amount is included in the preliminary NFNH estimate for education even considering these possible additional education expenses.

Table 6: Average monthly educational costs in MXN of January 2021 (for reference family with two children attending public school)

Type of expense	Pre-school + Elementary school	Middle school	High School	Total
School fees	0	0	2,050	
Uniforms	1,275	1,000	*N.A.*	
School supplies	1,100	1,190	1,000	
Meals	*N.A.*	*N.A.*	2,700	
Transport	*N.A.*	*N.A.*	*N.A.*	
Total (1)	2,375	2,190	5,750	
Number of years in each level (2)	9	3	3	
Total cost x number of years in each level (3) = (1) x (2)	21,375	6,570	17,250	45,195
Average cost per child per year (4) = (3)/18	1,188	365	958	2,511
Average cost for reference family per month (5) = (4) x number of children in reference family/12	**198**	**61**	**160**	**418**

Due to the pandemic of the COVID-19, since schools are closed and children take classes remotely and asynchronously or online, daycare and telecommunication costs have increased for essential workers such as those that we interviewed for this study. Most workers with children in pre-school or elementary school mentioned that they had to hire the services of someone, usually a relative or a friend, to take care of the children during working hours. The reported monthly cost of this kind of daycare ranged from MXN 1,200 in San Quintín to MXN 2,000 in Ensenada. Most workers also reported that they had to buy cell phones or laptops, rent or up-grade their internet services at home, and pay mobile phone connection fees, so that their children could follow the classes that public schools provided online, and be able to communicate with their teachers and fellow students. The connection fees of a mobile phone and internet services might have added about MXN 300 per child to the educational budget of the household. However, since we estimate the living wage for a situation of normality regarding attendance at school, these new and probably temporary additional costs are not included in the analysis.

8.2 Healthcare

In this section, we report that, in contrast to the education expenditures post check discussed above, the post check of health care costs reveals the need to increase the budget of the reference family for medical care above the amount already included in the preliminary estimate of NFNH costs. We first explain how the social protection and health insurance system is organized in Mexico, and then we present our estimate of out-of-pocket expenses for health care of the reference family in the study area. Finally, we show how much we should adjust the budget for health care included in the preliminary NFNH costs.

In Mexico, social security is a countrywide system consisting of two institutions (IMSS and ISSSTE) that provide health care, disability and retirement insurance for workers formally employed in the private and public sectors, and health insurance for their dependent family members. Additionally, there are workers and their families who have access to an insurance package similar to social security's, but through autonomous and private systems, such as those provided by the company Petróleos Mexicanos (PEMEX) and the Mexican armed forces to their employees. The workers in the informal sector (55% of the national labor force as of June 2021, 36% in Baja California) and their families can access medical insurance in two different ways. First, through a private company's pre-paid scheme or through voluntary affiliation to IMSS, for which they have to pay a fee as well. Second, by joining the Mexican government's Institute (INSABI), which serves people without formal coverage at no cost but provides lower quality medical attention relative to that which IMSS or ISSSTE provide. A part of the population (about 26.8% nationwide as of June 2021, 22.2% in Baja California) does not have access to health care through any of these insurance schemes, and only a very small portion of this group has private insurance for major medical expenses.

An undesirable result of this fragmentation of health care coverage is that, while one part of the population has double or triple coverage (they have access to health insurance from two or three institutions), a large part of the population does not have any type of protection.[8] Workers affiliated with social security, or with health care coverage from PEMEX or the armed forces, have access to free medical care. Overall, out-of-pocket spending on health care is relatively low in this group. In contrast, workers with health insurance from prepaid systems, INSABI, or without any coverage have a relatively higher out-of-pocket expense in health care. In the latter case, out-of-pocket expenses can reach catastrophic levels in the case of chronic diseases. It is important to mention that the share of the population subject to the possibility of catastrophic health expenditures greatly decreased during the last 20 years. According to Aban Tamayo et al (2020), however, even Mexicans affiliated with social security consider that social security health services are not very good or timely in case of an emergency, of some medical specialties, and of dental care and ophthalmology. Therefore, Mexicans consider that it is necessary to have an additional budget for those occasional or otherwise regular expenses.

The preliminary NFNH costs estimated include 1.0% for health expenditures for urban areas and 2.0% for rural areas of Baja California, which are 2.2% and 4.1% of adjusted NFNH expenditures (i.e. 1/45.2 and 2/48.2), respectively. These are quite low percentages for the world. This implies that the preliminary estimate of NFNH costs includes MXN 241 for health care expenditures for urban areas, and MXN 447 for rural areas.

These amounts are considerably lower than our estimate of the health care spending needs of the reference family in the municipalities of Ensenada and San Quintín, MXN 702 per month for insured households, and MXN 1,199 per month for uninsured households (Table 7). To determine the out-of-pocket health care expenditures needed to achieve a decent standard of living, during fieldwork we visited two hospitals, a dental clinic, an ophthalmology clinic and a clinical analysis laboratory in Ensenada, and

[8] According to an analysis by INEGI (Mexico's national statistics office) carried out with data from the 2020 Population and Housing Census, 92.6 million people are affiliated with some type of insurance or have some health coverage, while about 33 million people have no affiliation whatsoever. 51.0% of the total population of Mexico is affiliated with the IMSS, 8.8% with the ISSSTE, and 35.5% with INSABI. Additionally, 1.3% is in the PEMEX or the armed forces system and 2.8% is in an institution or private company. Finally, 2.2% of the country's population has health insurance from another public or private institution. These percentages add up to more than 100% due to double or triple affiliations. In the same analysis, INEGI reports that 26.8% of the population is not affiliated with any institutions or health systems. Source: https://www.inegi.org.mx/temas/derechohabiencia/#Informacion_general

a clinic in San Quintín. We collected the costs of consultations, treatment, laboratory tests and medical examinations. We then used these costs along with a model of the number of visits per year to public and private healthcare providers to determine the out-of-pocket cost per person per year and the family's out-of-pocket cost per month.

We took into account four elements for the definition of the model. First, the suggestion in Anker and Anker (2017) to use at least 3.5 medical visits per year per person. Second, the report by Aban Tamayo et al (2020) indicating the opinion of the Mexican population on the quality and timeliness of medical care provided by social security medical services. Third, the IMSS recommendation to make at least one visit a year to the dentist. Fourth, the assumption that the members of the reference family are in good health. This means that in the event of a chronic illness or disability they will use the medical services of social security or INSABI (both in principle free of charge).

The model of number of visits to health service providers per person used in the calculation includes: 2.5 visits per year to either a general doctor or a specialist; one laboratory test per year; one visit per year to the dentist; and one visit every two years to the ophthalmologist for two persons in the family. We consider that each visit to the private general practitioner or specialist requires an expense in medicines, but that family members purchase medicines only during every other visit to the dentist. We added a purchase of medicines directly from the pharmacy every two years. Finally, every other member of the family changes glasses and frames with each visit to the ophthalmologist, every two years.

The prices, the model of the number of visits, and our estimate of out-of-pocket health care expenditures are shown in Table 7. Prices are quite reasonable by international standards. The result is an out-of-pocket expense for the reference family of four members of MXN 702 per month in the municipalities of Ensenada and San Quintín, if the family is affiliated with social security. The amount rises to MXN 1,199 if the family does not have access to social security.

The difference between the estimated out-of-pocket expenditure for the family with and without social security is due to the fact that in the first of these, each member makes two visits to the general practitioner or specialist without payment, and one visit with payment every two years (0.5 per year). In contrast in the second, each uninsured family member makes 2.5 visits per year in the private sector. In the latter case, the lab test and medications are all out-of-pocket expenses (Table 7).

Table 7: Estimated out-of-pocket medical expenses per year and per month in Ensenada and San Quintín
(For reference family with two children with and without social security)

Type of provider	Cost per visit (MXN of January 2021) (1)	Cost per visit (US$ of January 2021)	No. of visits per year per person [with social security] (2)	No. of visits per year per person [without social security] (3)	Cost per year per person [with social security] (4) = (1) x (2)	Cost per year per person [without social security] (5) = (1) x (3)
Public provider / General or family doctor						
Consultation fee	0	0	2	0	0	0
Medicine when provided						
Medicine purchased privately						
Laboratory test (every four years)						
Private provider / General or specialty doctor						
Consultation	350	18	0.5	2.5	443	1,935
Lab test	185	9	0.5	1		
Medicine/Exam/Healing	350	18	0.5	2.5		
Private provider / Ophthalmology						
Consultation	600	30	0.25	0.25	500	500
Glasses	600	30	0.25	0.25		
Frame	800	40	0.25	0.25		
Private provider / Dentistry						
Consultation	400	20	1	1	988	988
Intervention	500	25	1	1		
Medicine	175	9	0.5	0.5		
Private provider / Pharmacy						
Medicine	350	18	0.5	0.5	175	175
TOTAL cost per person per year					**2,105**	**3,598**
TOTAL cost per family per month					**702**	**1,199**

Note. For the cost of consultations with the general practitioner or specialist physician, we use the amount most commonly mentioned by hospital and clinic staff which we visited during the field information survey carried out in January 2021. For the price of the consultation with an ophthalmologist or the dentist, we use the one that they charge in the specialized clinics that we visited during the fieldwork. The cost of the lab test is the simple average of the cost of urine, blood, influenza, and HIV tests. In the case of the cost of medicines, cures or exams that accompany a visit to the general practitioner or specialist, we use the simple average of the costs of a nurse's care (for healing, injection, etc.), gynecological exams, antibiotics, and care for a bone fracture. The cost of eyeglasses and the frame is the minimum value of the range reported by the staff of the specialized clinic we visited. Finally, the cost of the dentist's intervention is the average price of a dental cleaning, tooth extraction and cavity fix.

Our assessment of the cost of adequate health care therefore suggests that funds included for health care in the preliminary NFNH estimate are not sufficient. There is a large difference between the former and latter estimates in part because the percent of household expenditure spent on health care in Baja California is quite low compared to other countries. The post check adjustment needed is MXN 255 for San Quintín and MXN 461 for Ensenada, assuming that workers are formal and affiliated with social security coverage.

For workers without social security, this adjustment would be MXN 752 and MXN 958 for rural and urban areas, respectively. It is worth noting that adding this would not have much effect on our estimate of the gross living wage, because while it would increase living expenses and so the net living wage, there would not be any payroll deductions for social security needing to be added to the net living wage estimate. However, this adds a considerable amount to the cost of living and hence the net, after expenses, income needed for farm families that are not wage earners.

9. PROVISION FOR UNEXPECTED EXPENSES TO GUARANTEE SUSTAINABILITY

A marginal amount is also added to the family budget estimated above for unexpected events in order to ensure the sustainability of family income and help prevent families from falling into a poverty trap. The household budget should be large enough to allow households to save for unforeseen expenses. Income fluctuations or unexpected catastrophic health expenditures can jeopardize the economic stability of the household. Instability and unsustainability are not attributes of a decent family life, especially since households' access to savings and credit through the financial system is very limited in Mexico. In general, they only have access to credit informally through family networks. We considered this, and added 5% to the household budget for this (i.e. 5% of the amount that results from adding the cost of food, housing, and nonfood and non-household expenses).

SECTION III: THE LIVING WAGE FOR WORKERS

10. FAMILY SIZE TO BE SUPPORTED BY LIVING WAGE

To determine the size of the reference family, that is, a typical family size for the study area, first we calculated the total fertility rate in the state of Baja California adjusted by the mortality rate of children under 5 years (with data from the Intercensal Survey of 2015). The figure is 2.05 for Baja California (2.01 in urban areas and 2.47 in rural areas). The figures at the national level are higher: 2.25, 2.11, and 2.73, respectively.

In a second stage, we estimated the average size of households from the distribution of households by the number of members in the state of Baja California, and for urban and rural populations in the state, using data from the Intercensal Survey of 2015 and the National Income and Home Expenditure Survey (ENIGH) of 2018. The results are 3.80 people per household at the state level, with 3.79 and 3.95 people per household in urban and rural areas, respectively.

Third, we calculated the average household size for households with at least 2 members (i.e., excluding one person homes that definitely do not include children) and with a maximum of 8 members (i.e., excluding very large households that are probably homes with more than one nuclear family). The result of this calculation is 3.74 for Baja California, with 3.73 and 3.88 for urban and rural areas.

Considering the above calculations, we consider the most appropriate reference family size as four, with two adults and two children. This is consistent with the child mortality adjusted total fertility rate of around 2 and the adjusted average household size of just under four indicated in previous paragraph.

11. NUMBER OF FULL-TIME EQUIVALENT WORKERS IN REFERENCE FAMILY PROVIDING SUPPORT

The number of full-time equivalent workers in the reference family was estimated using data from the National Employment and Occupation Survey (ENOE, Fourth Quarter of 2020) for Baja California for rural and urban areas, and for men and women aged 25 to 59. We used the data on the labor participation rates (LFPR), unemployment rates, and part-time employment rates (less than 35 hours per week) in both locations and for both genders. We assumed that one member of the reference family is a full-time worker, while the time dedicated to work by the other adult depends on the three rates just mentioned. The final value for the partner/spouse being the average for men and women to be gender neutral.

We found that the number of full-time equivalent workers in the reference family is 1.69 in the state of Baja California. In urban areas, this number is 1.71 (Table 8A) and in rural areas is 1.69 (Table 8B). Notice that the LFPR in urban areas is higher than in rural areas, but also so is the unemployment rate and the part-time employment rate. The relatively higher value of the LFPR more than compensates for the effect of the other two values, and the result is a higher number of full-time equivalent workers in the reference households of urban areas. Per the discussion in parts 3 and 6 of section II, we assume that the urban and rural estimates are good proxies for the number of full-time workers in the reference households of Ensenada and San Quintín, respectively.

Table 8A
Number of full-time equivalent workers in urban households

Variable	Males	Females
LFPR	91.5	70.1
Unemployment rate	2.7	1.4
Part-time employment rate	13.6	28.4
Number of full-time workers in family equals: **1 + [LFPR x (1.0-unemployment rate/100) x (1.0-part-time employment rate/100/2)]**	1.71	

Note: LFPRs, unemployment rates, and part-time employment rates are for prime working ages 25-59.

Table 8B
Number of full-time equivalent workers in rural households

Variable	Males	Females
LFPR	88.0	62.1
Unemployment rate	1.6	0.6
Part-time employment rate	14.1	14.9
Number of full-time workers in family equals: **1 + [LFPR x (1.0-unemployment rate/100) x (1.0-part-time employment rate/100/2)]**	1.69	

Note: LFPRs, unemployment rates, and part-time employment rates are for prime working ages 25-59.

12. NET AND GROSS LIVING WAGE, PAYROLL DEDUCTIONS, AND INCOME TAXES

We estimated the net living wage using the household budget components discussed in Section II, and the number of household members and full-time equivalent workers in the reference household in section III. We show the results in Table 9.

The monthly budget for a basic but decent life, according to the definition used in this study, for a family of four (two adults and two children) amounts to MXN 23,152 (USD 1,163) in Ensenada and MXN 21,692 (USD 1,090) in San Quintín. Given that the number of full-time equivalent workers per family in these municipalities is 1.71 and 1.69, respectively, what each full-time worker should receive is a net monthly take-home payment of MXN 13,539 (USD 680) in Ensenada and MXN 12,835 (USD 645) in San Quintín.

Although these estimates are reasonably similar (the estimated living wage for Ensenada is 5.5% higher than the estimated for San Quintín), we recommend using the one that corresponds to each jurisdiction. One reason for this is that the costs structure of the living wage is different in each municipality. In particular, housing costs (rent plus utility costs) are much higher in Ensenada. In addition, in the future the costs of these components may vary differently. For example, while food inflation rates present a high co-movement in the different regions of Mexico, rental prices in the municipalities closer to the Mexico-US border vary from those of other municipalities according to the evolution of the exchange rate between the peso and the dollar. A third reason, related to the previous ones, is that the distances between localities of both municipalities are long, the orography does not facilitate movement between

them, and there is poor public transport services between locations. All this makes it very unlikely that workers living in San Quintín commute to work in Ensenada, for example. Finally, the absolute difference between the two living wages, MXN 704 (USD 35) per month, might seem small to some, it is equivalent to 1.6 days of paid work at the living wage rate in San Quintín. However, for those companies that have workers in both municipalities and that consider it impractical to have, or cannot pay, two different living wages, we recommend using the higher estimate to ensure that the wage is sufficient to accommodate all workers in the study area.

Formal workers in Mexico have to pay a tax on income and a contribution to social security. For this reason, it is necessary to add these taxes to our net living wage estimate (that is, to ensure that workers have enough net salary for decency). In Ensenada, workers who received a net salary equivalent to the estimated living wage (MXN 13,539) have 2.7% of their gross salary deducted for contribution to social security and 12.3% for income tax. This means that workers who earn a living wage in the Ensenada study area would have to pay MXN 1,959 in income tax and MXN 430 in social security. When we add them to our net living wage (that is, the take home pay), a gross living wage of MXN 15,929 (USD 800) is obtained for Ensenada (Table 9).

Table 9
Net and gross living wage, payroll deductions and income tax
(MXN and US$, January 2021)

PART I. FAMILY EXPENSES				
	Ensenada		San Quintín	
	MXN	US$	MXN	US$
Food cost per month for reference family (1)	**6,557**	**329**	**6,620**	**333**
Food cost per person per day	53.9	2.7	54.4	2.7
Housing costs per month (2)	**4,089**	**205**	**2,881**	**145**
Rent per month for acceptable healthy housing	3,000	151	2,000	101
Utility costs and minor repairs and maintenance per month	1,089	55	881	44
Non-food non-housing (NFNH) costs per month taking into consideration possible post check adjustments (3)	**11,404**	**573**	**11,158**	**561**
Preliminary estimate of NFNH costs per month	10,943	550	10,903	548
Healthcare post check adjustment	461	23	255	13
Education post check adjustment	-	-	-	-
Additional amount (5%) for sustainability and emergencies (4A)	**1,102**	**55**	**1,033**	**52**
Additional possible amount (usually 5%) for extended family support (4B)	-	-	-	-
TOTAL LIVING COSTS PER MONTH FOR BASIC BUT DECENT LIVING STANDARD FOR REFERENCE FAMILY SIZE (5) [5=1+2+3+4A+4B]	**23,152**	**1,163**	**21,692**	**1,090**
PART II. LIVING WAGE PER MONTH				
NET LIVING WAGE PER MONTH (6) [6=5/#full time workers]	**13,539**	**680**	**12,835**	**645**
Statutory deductions from pay (7) [b]	**2,389**	**120**	**2,174**	**109**
Social security tax (7A)	430	22	403	20
Income tax (7B)	1,959	98	1,771	89
GROSS LIVING WAGE PER MONTH (8) [8=6+7]	**15,929**	**800**	**15,009**	**754**

Table 10
Key values and assumptions

Variable \ Municipality	Ensenada	San Quintín
Exchange rate of local currency to US$ (January 2021)	19.9	19.9
Number of full-time workers per household	1.71	1.69
Reference family size	4	4
Number of children in reference family	2	2
Ratio of non-food non-housing costs to food costs	1.67	1.65

In San Quintín, workers who received a net salary equivalent to the decent salary estimated (MXN 12,835) have 2.7% of their gross salary deducted for contribution to social security and 11.8% for income tax. This means that workers who earn a living wage in the study area of San Quintín would have to pay MXN 1,771 in income tax and MXN 403 in social security. When we add them to our net living wage (that is, the take home pay), a gross living wage is obtained of MXN 15,009 (USD 754) (Table 9).

The living wage presented in the preceding paragraphs applies to formal workers affiliated with social security institutions. The equivalent calculation for workers without social security requires, as mentioned in section 8a, a greater upward adjustment in the budget for health care, of MXN 752 and MXN 958 for rural and urban areas, respectively. As anticipated in that section, adding this does not have much of an effect on our estimate of the gross living wage, although it does add a considerable amount to the cost of living and thus the income needed for non-salaried farm families. In this last calculation, while the cost of living increases and therefore the net living wage, there are no payroll deductions for social security that need to be added to the estimate of the net living wage. If we keep the deduction for income tax, our calculation yields a gross living wage for informal workers of MXN 15,786 in Ensenada and MXN 14,903 in San Quintín. That is, only MXN 142 and MXN 107 less than the gross living wage of formal workers.

SECTION IV: WAGE LADDER AND THE LIVING WAGE IN CONTEXT

13. WAGE LADDER

Since January 1st, 2021, the minimum wage in the state of Baja California is MXN 213.39 per day (DOF 2021). If we assume (365/12) days per month, this is equivalent to a gross monthly payment of MXN 6,491 (equivalent to US$ 326). The estimated living wage in this study for Ensenada is 2.4 times the current minimum wage (2.3 times in the case of San Quintín) - see Figure 5. Although the increase in the minimum wage in 2021 was important (15%), it is still much too low. Note that the minimum wage for Baja California is so low that it would not enable a typical size family in Ensenada to be lifted out of poverty as defined by the government.

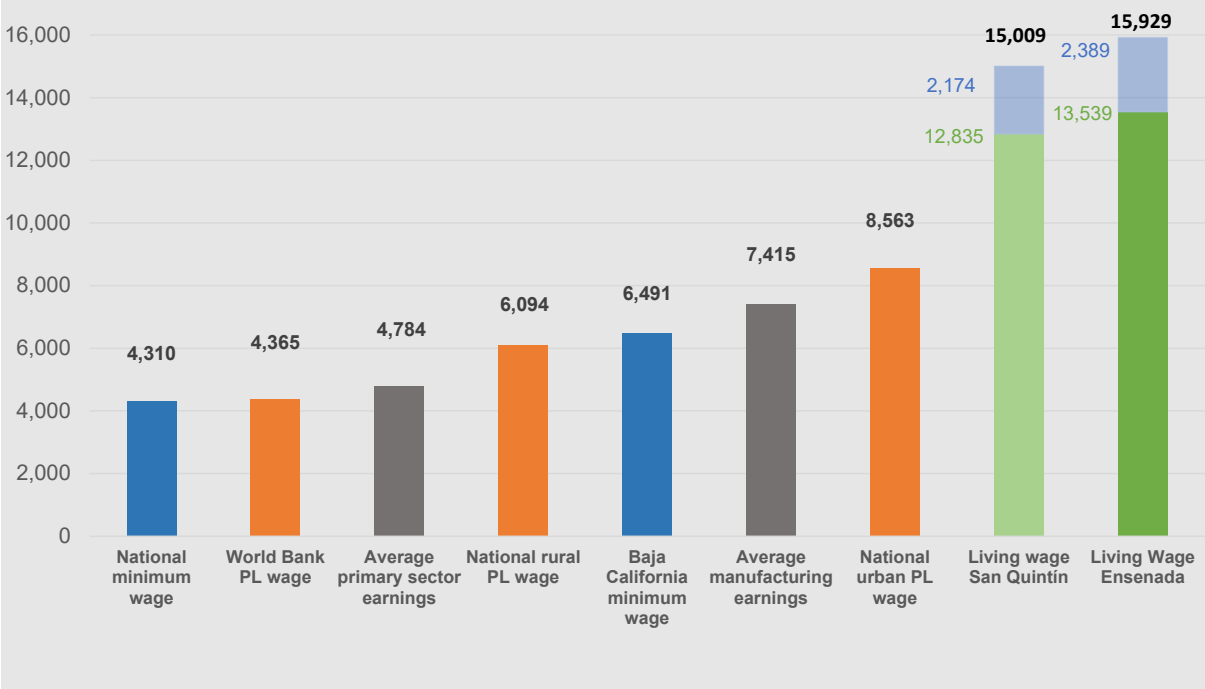
The minimum wage in Mexico exhibits a historical lag, having lost ¾ of its purchasing power in the three decades prior to 2015. Since that year, an effort has been made to raise it, but, as demonstrated in this report, it still does not comply with the requirements of the Federal Labor Law and the Mexican Constitution, which establishes the minimum wage (Article 123.VI, Title Six. Labor and Social Security):

> "The general minimum wage must be sufficient to satisfy the normal material, social, and cultural needs of a family, and to provide the compulsory education of children. The professional minimum wage shall be fixed by taking into account the conditions of the different industrial and commercial activities.
>
> A national commission composed by representatives of the workers, employers, and the Government shall fix minimum wages. Special advisory committees may assist this national commission, if it considers them necessary for a better performance of its duties."

The national (urban and rural) poverty line wages determined by CONEVAL, and the World Bank international poverty line wage for upper middle-income countries like Mexico, are also well below the living wage of Baja California. The estimate based on the international poverty line of US$ 5.50 per day of the World Bank for upper-middle income countries is MXN 4,365 (PPP 2020 of 11.09), while the one resulting from the rural poverty line in Mexico is MXN 6,094. The urban equivalent of the latter is MXN 8,563, higher but still well below the living wage (Figure 5). This result of our living wage being higher than these poverty line wages is consistent with the definition of decent salary, which should allow for a standard of living above poverty.

The average monthly income of workers in the primary sector (agricultural, forestry and fishing), as well as those in manufacturing, such as textiles, are also below the estimated living wage at MXN 4,784 and MXN 7,415, respectively (Figure 5, according to ILOSTAT calculations, based on the processing of microdata of Mexico employment survey for first quarter of 2021). These being lower than the living wage is not surprising, given, on the one hand, the low minimum wage and the magnitude of income poverty in Mexico and, on the other, the still relatively high proportion of low-income workers working as casual informal sector workers who live in subsistence conditions. What is somewhat surprising is the size of the large gap to a living wage.

Figure 5
Wage ladder, Ensenada and San Quintín- Baja California
(MXN of January 2021)



SECTION V. CONCLUSIONS

This paper reports the application of the Anker Methodology (Anker and Anker 2017) to estimate the living wage in the municipalities of Ensenada and San Quintín in the southern part of the state of Baja California, Mexico. Ensenada comprises a non-metropolitan urban area with low industrialization for an urban area as well as semi-rural and rural areas, although the population of this municipality is mainly urban (80%). San Quintín, on the other hand, is eminently rural (and small towns), as 80% of the population lives in locations with 15 thousand inhabitants or less. The Anker methodology was already used before in more than forty living wage studies worldwide, and therefore it yields internationally comparable estimates.

As part of this study, we did extensive field research on local food habits and purchase of food, food prices, housing rental prices, health care costs, education costs, and transportation costs for a reference family of four people (2 adults and 2 children). We also used secondary sources of information; mainly, on state level, for household expenditures, employment, and household size from household surveys and the population census.

The main result is that a family of four requires, as of January 2021, a monthly net income of MXN 23,152 (US$ 1,163) to have a basic but decent life in the municipality of Ensenada. In the municipality of San Quintín, the amount necessary is MXN 21,692 (US$ 1,090). The take-home pay net living wages for these two municipalities are MXN 13,539 (US$ 680) and MXN 12,835 (US$ 645) respectively. While the estimated amounts are not very different between municipalities, they are reported separately because rent is much greater in Ensenada compared to San Quintín.

Taking into account mandatory social security contributions and income taxes for a full-time worker at the net living wage, ***we estimate gross living wages of MXN 15,929 (US$ 800) per month in Ensenada, and MXN 15,009 (US$ 754) per month in San Quintín.***

Although these estimates seem similar (the estimated living wage for Ensenada is only 5.5% higher than the one estimated for San Quintín), we recommend using the one that corresponds to each geographic area. The contributions to overall cost of living of the components of the living wage (food, housing, NFNH, etc.) are different in each municipality, and in the future they also may vary for different reasons and in divergent ways. Also, the long distances between localities, the orography, and poor public transport services in the area make it unlikely that workers will commute to work between municipalities. However, for those companies that have premises and employ workers in both municipalities and that consider it impractical to have, or to pay, two different living wages, we recommend using the higher estimate to ensure that the wage is sufficient to accommodate all workers in the study area.

The living wage, net of income tax and social security payroll deductions, estimated for Ensenada is 58% greater than the urban poverty wage in Mexico; 83% greater than the average earnings of manufacturing workers in Mexico; and 109% greater than the minimum wage of Baja California. In the case of San Quintín, the estimated net living wage is 111% higher than the rural poverty wage in Mexico; 98% higher than the minimum wage of Baja California, and 2.7 times greater than the average earnings of workers in agriculture, forestry and fishing in Mexico. While only slightly more than 10% of the population of these municipalities has an income below the poverty wage, there is still a long way to go for the average income to approach a living wage.

These results highlight the need to continue promoting dialogue between companies, workers and the government to improve wage conditions in Baja California. There is also scope to reduce the cost of living of many families by increasing social security coverage. However, we estimate that for informal sector workers - those without access to social security and therefore without health insurance - the gross living wage per month increases only by MXN 142 (US$ 7.10) in Ensenada and by MXN 107 (US$ 5.40) in San Quintín. This is the result, on the one hand, of informal workers and their families having higher out-of-pocket health care expenditures while, on the other hand, not paying social security contributions, although we assume they still have to pay income tax.

The results of this study are especially timely as they are published at the same time when the new commercial agreement between Canada, the United States and Mexico (the USCMA) becomes enforceable (see New York Times, 2021). This agreement, unlike its previous version (NAFTA), contains stronger commitments in relation to the rights and obligations of workers and companies in the workplace, including the payment of a decent wage.

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