→ The yellow potato is one of the products grown by Rodrigo Octavio Ballesteros. He, his wife Alba Lucía Robayo and their two children, Sara and Cristian, live off of their crops of berries, granadilla, zucchini and rainbow trout in Buena Vista (Boyacá).

→ Gladys Campo and Luis Eduardo Palacios arrived in Santander in 1968. They came from Valle and Cauca and they moved to the conflict-ridden area of Carare Opón.

Chapter 4
Colombian households' poverty conditions and access to social programs

Adriana Camacho
Román D. Zárate

→ After the death of her father, life for Daniela Cruz and her brother, Sebastián, became very difficult. Together with their mother and grandfather, they live on what they earn through their livestock and agricultural work in Simijaca (Cundinamarca).

→ ## 4.1. Introduction

Despite its sustained reduction over the last decade, poverty rates continue to be high in Colombia. Poverty measurement and evaluation is an issue of utmost importance to be reviewed based on different sources of information and indicators. Previously, short cross-sectional surveys have been used to measure poverty and understand the changes in the quality of life of Colombians. In this document, a longitudinal study, known as ELCA, is used not only to measure the studied population's poverty indexes but also to understand households' transitions into and out of poverty over time between the first and the second waves of the survey (2010 and 2013). In the future, as more waves of the longitudinal survey are carried out, it will be possible to make panel measurements of intergenerational social mobility, which, up to now, has been impossible given the lack of relevant information (Angulo, Azevedo, Gaviria and Paez, 2012).

This chapter seeks to contrast the dimension and the transition of poverty observed over the three years. To do this, the following indicators have been created: per capita expenditure, poverty line (PL), multi-dimensional poverty index (MPI), wealth index, and predicted Sisbén score based on the characteristics of the household and the original algorithm of the first version.[1] Consistently with the data presented in official sources, the evaluation of the different poverty measurements show that there was a considerable reduction of poverty over this period. The analysis of the poverty indicators will be complemented by an analysis of the changes in asset ownership and access to goods and services by the Colombian population over the three years.

We also endeavor to find out whether there is a connection or a pattern that associates the changes in poverty with access to social government programs, the socio-demographic characteristics of the household head, or having been exposed to different types of shock and their impact during the period of study. ELCA includes a wide-ranging questionnaire that identifies whether the households have access to the following programs: Familias en Acción, Hogares Comunitarios of the ICBF (Colombian Institute of Family Welfare), SENA and the Red Unidos, and their perception of them. Furthermore, access to health services is quantified as the subsidized and contributory system by geographical area. Unfortunately, we do not have information regarding the households' perceptions of health programs.

→ Jennifer García was able to become independent from her parents. She works as a T-shirt printer for an important textile brand in Bogotá. She lives in Cuidad Granada.

4.2. Poverty Indicators

As a first quality of life indicator, we calculated the average household expenses by region, based on a detailed list of expenditure per item reported by the households.[2] The list of products for which expenses are reported in the rural area is the same in the two waves of the survey, but this is not the case in the urban area. The comparison of expenses in the urban area is subject to changes in the questionnaire due to the fact that in 2010, the detailed list of articles included fewer items than for 2013, meaning that the total aggregate expenditure could be underestimated. To calculate per capita expenditure, the consumption of durable goods was ex-cluded given that these cannot be considered re-occurring purchases. The calculations were made considering a total of 4,301 urban households and 4,131 rural households that were included in the two waves of the survey.[3] This restriction was imposed in order to reduce possible selection problems due to attrition in the second wave. Additionally, expenses were calculated using 2013 prices in order to compare increases in expenses in real terms. With these clarifications in mind, Table 4.1 presents the magnitudes and the average real growth of per capita expenditure for 2010 and 2013 for the households in the different regions within the urban area.

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1. The algorithm of the first version has been made public.
2. The expenses are based on the following categories of items: food, household members' personal expenses, cleaning products, clothing and annual household expenses excluding the purchase of durable goods (furniture, vehicles and real estate).
3. For the households that were divided between 2010 and 2013, one of the resulting households surveyed in 2013 was randomly chosen to compare its situation in 2010.

Table 4.1.
Average per capita expenses in the urban area (2013 prices).

Region	2010	2013	Percentage change (%)
Atlantic	261.043	387.699	48,52
Eastern	339.617	398.928	17,46
Central	324.183	362.435	11,80
Pacific	342.424	359.006	4,84
Bogotá	720.310	697.033	-3,23
Total	403.523	454.805	12,71

Source: Authors' calculations based on ELCA 2010 and 2013

The information is based on reported data for households in the two waves of the study.

Table 4.2.
Average per capita expenses in the rural micro-regions (2013 prices).

Region	2010*	2013	Percentage Change (%)
Mid-Atlantic	152.383	175.107	14,91
Cundiboyacá	172.194	209.992	21,95
Coffee region	182.438	202.237	10,85
Center-East	138.039	184.880	33,93
Total	156.805	189.046	20,56

Source: Authors' calculations based on ELCA 2010 and 2013

The information is based on reported data for households in both waves of the study. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.

Specifically, the households in the urban area presented an increase in average per capita expenses of 12.7%. Within this area, the Atlantic region presented the greatest increase in expenses (48.5%), followed by the Eastern and Central regions. In real terms, expenses in the city of Bogotá fell over these three years. In order to understand the high increase in per capita spending, we reviewed some of the characteristics of the households in the highest 20% of the distribution that increased their spending. We noted that, in the second wave of the survey, these households had: i) a greater number of household heads with paying jobs, ii) a lower number of members, and iii) a higher average age in the household, which implies less economic dependency.

Table 4.2 presents the scales and the average real growth per capita in 2010 and 2013 for the households in the four micro-regions within the rural area. The real growth of per capita expenditure in the rural area was 20.6%, and was marked by the Center-East region with a growth of 33.9%, followed by the Cundiboyacá region, with 22%. The mid-Atlantic and 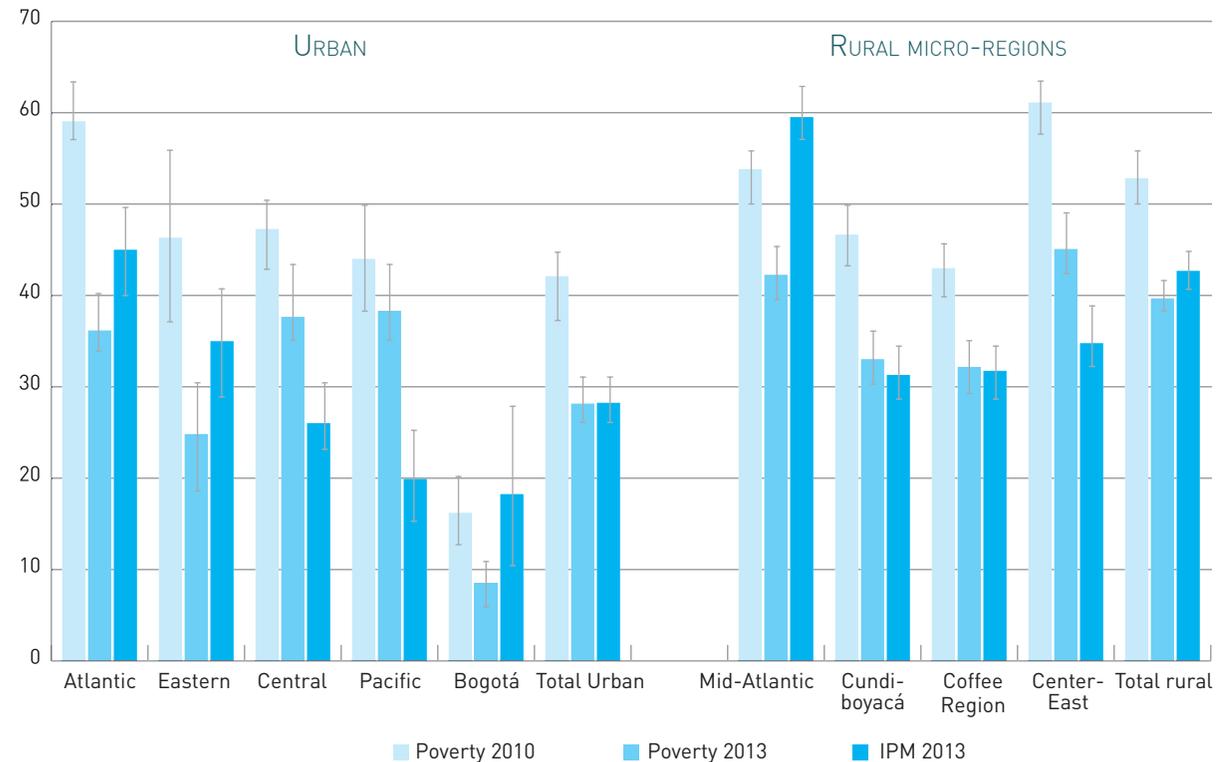Coffee regions presented growth below the average of 14.9% and 10.9%, respectively. In general, the average expenditure of the households included in the first wave of the survey, but not in the second, was greater than that of the households observed in both waves. This is indicative of a self-selection problem in the surveyed households within the rural areas. For the case of the urban area, the average expenditure for the households that appear in 2010 but not in 2013 —with respect to the households that appear in both waves— is higher, except for those found in the Pacific region and Bogotá.

With the information about the average expenses of the Colombian households, we were able to design a first poverty indicator known as the poverty line (PL). This measurement calculates the percentage of households that are below a minimum level of expenditure. The value of the poverty line is equivalent to the per capita monthly expenditure for food and other basic goods and services. The national poverty line for 2010 and 2013 was established at a monthly COP$207,000 and COP$227,367 per person in urban areas and COP$123,500 and COP$136,192 in rural areas.

Figure 4.1 shows the percentage of households that fell below the poverty line in 2010 and 2013 by region in the urban and rural areas. On average, we can see that 42.1% of the population in the urban area found themselves below the poverty line, a condition that falls to 28.2% for 2013 (implying a poverty reduction of 33%). With respect to the rural area, 52.8% of the population found themselves below the poverty line and this fraction fell to 39.7% for 2013 (implying a 24.8% reduction of households below the poverty line). Even when the decreases in poverty and the scales found are much greater than the data reported by DANE, it is important to note two main differences: first, DANE[4] uses the income (and not the expenses) reported in the Households Survey (ECH). Second, the representativeness of the two surveys is distinct. ELCA covers strata one to four for the urban area and four micro-regions in the rural area.

Based on the data provided by the ELCA longitudinal study, this is a unique exercise in that, unlike the short cross-sectional studies, it allows us to observe transitions in poverty. In the urban area, 23.4% of the households were below the PL in 2013

and 2010, 18.7% rose above the poverty line, 8.5% entered poverty and 49.4% were not in poverty in either year. In the rural area, 30.1% were below the PL in 2013 and 2010, 22.6% rose above the poverty line, 9.53% entered into poverty and 37.6% had

never been below the PL. As already mentioned, this indicates that there was a net reduction in poverty, but it is important to bear in mind that some households that were not below the poverty line in 2010, were so in 2013.

FIGURE 4.1.
HOUSEHOLDS IN MONETARY AND MULTI-DIMENSIONAL POVERTY BY AREA AND REGION (PERCENTAGE OF HOUSEHOLDS).

Source: Authors' calculations based on ELCA 2010 and 2013

The information is based on reported data for households in both waves of the study. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.

→ José Miguel Petro buys lottery tickets every day in Cereté (Córdoba). He religiously watches TV at 2:30 p.m. to see the results.

Based on the data provided by the ELCA longitudinal study, this is a unique exercise in that, unlike the short cross-sectional studies, it allows us to observe transitions in poverty. In the urban area, 23.4% of the households were below the PL in 2013 and 2010, 18.7% rose above the poverty line, 8.5% entered poverty and 49.4% were not in poverty in either year.

At the regional level, in the urban area the transitions were positive, meaning that more people rose above the poverty line than fell below it. However, the Pacific and Central regions presented higher levels of people falling below the poverty line in proportion to those rising above it. Within the four rural micro-regions, the Coffee Region stood out as the area with the greatest proportion of families falling below the poverty line in 2013 with respect to 2010, in comparison with those who rose above the poverty line, even when the net result is also positive.

The measurement of the PL is limited as it is one-dimensional and short term, and only accounts for expenditure over a short period of time, making it an incomplete measurement of structural poverty. In order to complement the poverty line calculation, Oxford University's Oxford Poverty & Human Development Initiative (OPHI) developed the multi-dimensional poverty index (MPI), which focuses on opportunities and access to conditions and services, allowing the population to reach greater well-being. An advantage of the indicator is that it allows comparisons in different contexts. The MPI considers

fifteen dimensions by which a family is determined to be in multi-dimensional poverty if it is lacking in at least five of these fifteen dimensions. Due to the limited information collected in the 2010 survey, this indicator can only be calculated for 2013. Figure 4.1 shows the PL for 2010 and 2013 by region in both rural and urban areas, and presents the MPI for 2013. This indicator presents a similar behavior to that of the PL by region in the rural area with the exception of the mid-Atlantic region, which is much higher. The MPI average is of 33% and 39% in the urban and rural areas, respectively.

Even though the MPI is an improvement over the poverty line indicator in the sense that it measures the condition of structural poverty, it could only be constructed for 2013. This led us to calculate and analyze the wealth index —as proposed by Filmer and Pritchett (2001)— and the first version of the Sisbén poverty index.

Both the wealth index and Sisbén are based on an algorithm created by the principal components method. In a single indicator, this methodology can add a set of variables, most of them categorical, which together can determine the condition of poverty. The wealth index includes variables of access to public services, characteristics of the dwelling, and durable goods. The Sisbén index includes the types of variables present in the wealth index and it adds the socio-demographic, educational and labor market conditions of the members of the household.

Figures 4.2 and 4.3 present the wealth and Sisbén indexes respectively. On the left is the index for the urban area and on the right, that for the rural area in the two waves of the study. The average of the wealth index between 2010 and 2013 for the urban area passed from -0.5 to -0.31, which clearly indicates a reduction in poverty. At the same time, the distribution is flatter showing evidence of improvements in terms of equality. The rural area also shows improvements in terms of equality, and the average of the wealth index went from -0.31 to -0.13. This calculation eliminated 141 households from the panel, which in 2010 were at the high end of the distribution as they were considered atypical values.
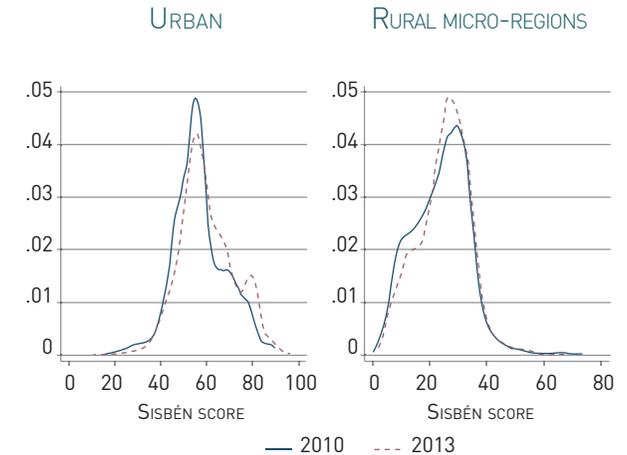
FIGURE 4.2.
WEALTH INDEX DISTRIBUTION BY AREA AND YEAR.
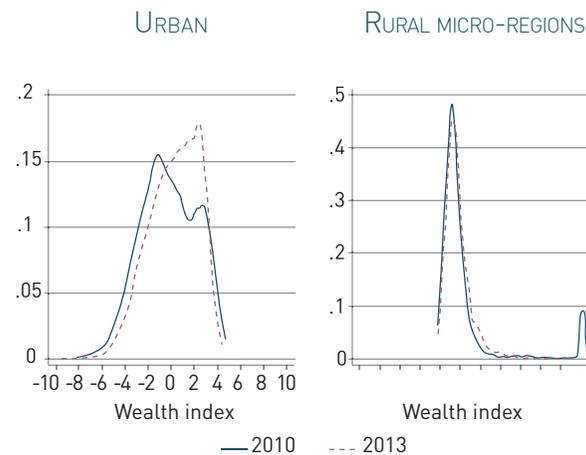
Source: Authors' calculations based on ELCA 2010 and 2013

The information is based on reported data for households in both waves of the study. The wealth level corresponds to a continuous index based on durable goods and households' access to services. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.

FIGURE 4.3.
DISTRIBUTION OF SISBÉN SCORES BY AREA AND YEAR.

Source: Authors' calculations based on ELCA 2010 and 2013

The figure presents the distribution of Sisbén scores by wave and area. The information is based on reported data for households in both waves of the study. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.

Sisbén distribution, which takes values of 0 to 100, increased by approximately one point in both rural and urban areas between 2010 and 2013. This indicates an improvement in the population's socio-economic conditions. Even though for both previously mentioned wealth and poverty indexes there are signs of improvement in terms of poverty, these are not as significant as the changes presented by the monetary poverty index.

Table 4.3 shows a transition matrix for terciles of wealth for the rural and urban areas. It is important to mention that the terciles were constructed for the two points in time in such a way that the matrix captures the relative improvements of the households in relation to the improvements of all the households in the sample. An interesting pattern that arises in the data is that there is greater movement in the rural area than in the urban. On the one hand, for each of the three terciles, we can see that the percentage of households that remained in the same tercile between 2010 and 2013 is greater in the urban area than in the rural. For example, for the urban area, the percentage that remained in the first tercile was 70.3%, 51.3% in the second tercile, and 68.3% in the third tercile. For the rural area, these three values correspond to 63.2%, 44.3% and 58%, respectively. Also, for the urban area, a greater percentage of the households in the second tercile (26.8%) rose to tercile three in relation to the percentage which went down to tercile one (20.68%) between 2010 and 2013. In the rural area, something similar occurred when a greater percentage of households in tercile two rose up to tercile three (32.24%) in relation to those that went down to tercile one (23.41%).

At the same time, by comparing the changes for tercile one and tercile three, better mobility patterns can be observed for the rural area than the urban area. For example, in tercile one of the urban areas only 29.7% ascended, whereas in tercile three, 31.68% descended. These movement patterns are exacerbated when the households that moved by two levels are compared. For example, for tercile one, only 10.1% (3.02% / 29.7%) of the total that improved during the two years ascended two terciles, while 25% (7.94% / 31.68%) of the total households in tercile three that deteriorated, moved down two terciles. For the rural area, these differences are smaller. For tercile one 36.79% ascended of which 26.28% (9.67% / 36.79%) improved by two terciles. Whereas for the third tercile, 41.99% descended a tercile, of which 32.17% (13.51% /41.99%) fell to tercile one.

TABLE 4.3.
WEALTH LEVELS TRANSITION MATRIX BY AREA (PERCENTAGE OF HOUSEHOLDS).

Urban Residence Area			
Tercile 2013			
	1	2	3	Total
Tercile 2010	%	%	%	%
1	70,3	26,6	3,0	100,0
2	21,8	51,4	26,9	100,0
3	7,9	23,7	68,3	100,0
Total	33,3	33,9	32,7	100,0

Rural Micro-Region Residence Area			
Tercile 2013			
	1	2	3	Total
Tercile 2010	%	%	%	%
1	63,2	27,1	9,7	100,0
2	23,4	44,4	32,2	100,0
3	13,5	28,5	58,0	100,0
Total	33,4	33,3	33,3	100,0

Source: Authors' calculations based on ELCA 2010 and 2013

The information is based on reported data for households in both waves of the study. The wealth level corresponds to a continuous index based on households' durable goods and access to services. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.

From the detailed description of the different poverty measurements made in this chapter, it is evident that the indicators have improved, even though monetary poverty indicators tend to predict much greater reductions in poverty than the multi-dimensional indexes. Following is a review of statistics relating to public services, infrastructure and durable goods to which the Colombian households have access. This review will help identify how far the reduction in poverty can be reflected in such factors.

Public service coverage was sufficiently high in 2010, making it difficult to perceive a substantial improvement or increase. The only increase that was in fact observed was one of 8.5 percentage points (12%) in the access to a gas service. In the rural area, even when the coverage of garbage collection and sewage services was low (5% and 9%, respectively), there were no great improvements in this indicator. Access to drinking water through the water company was of 60% and presented an increase of five percentage points (approximately 10%) between 2010 and 2013.

The upper and lower panels of Table 4.4 present information regarding the ownership of durable assets for both urban and rural areas, respectively. It is important to note that in the urban area there was an increase in the ownership of computers, washing machines and motorcycles of 9.7, 7.2 and 6.2 percentage points respectively (25%, 12% and 34% in asset ownership, respectively). For the urban area, the ownership of a refrigerator and washing machine increased by almost five percentage points. Given the increased number of households with a refrigerator, this implies a growth of 8%, while the increase in washing machine ownership is of 30%. Motorcycle ownership increased by 9.1 percentage points (43%).

TABLE 4.4.
PROPERTY AND USE OF DURABLE ASSETS (PERCENTAGE OF HOUSEHOLDS).

Variable	2010	2013	Percentage points change
Urban			
Refrigerators	83,30	86,27	0,03
Washing machines	55,91	63,10	0,07
Showers	21,52	17,32	-0,04
TV	95,85	96,15	0,00
Computer	38,65	48,38	0,10
Motorcycle	18,41	24,65	0,06
Rural micro-regions			
Refrigerators	57,78	62,28	0,05
Washing machines	17,18	22,16	0,05
Showers	7,26	3,90	-0,03
TV	83,16	82,46	-0,01
Computer	6,94	7,74	0,01
Motocicleta	21,22	30,39	0,09

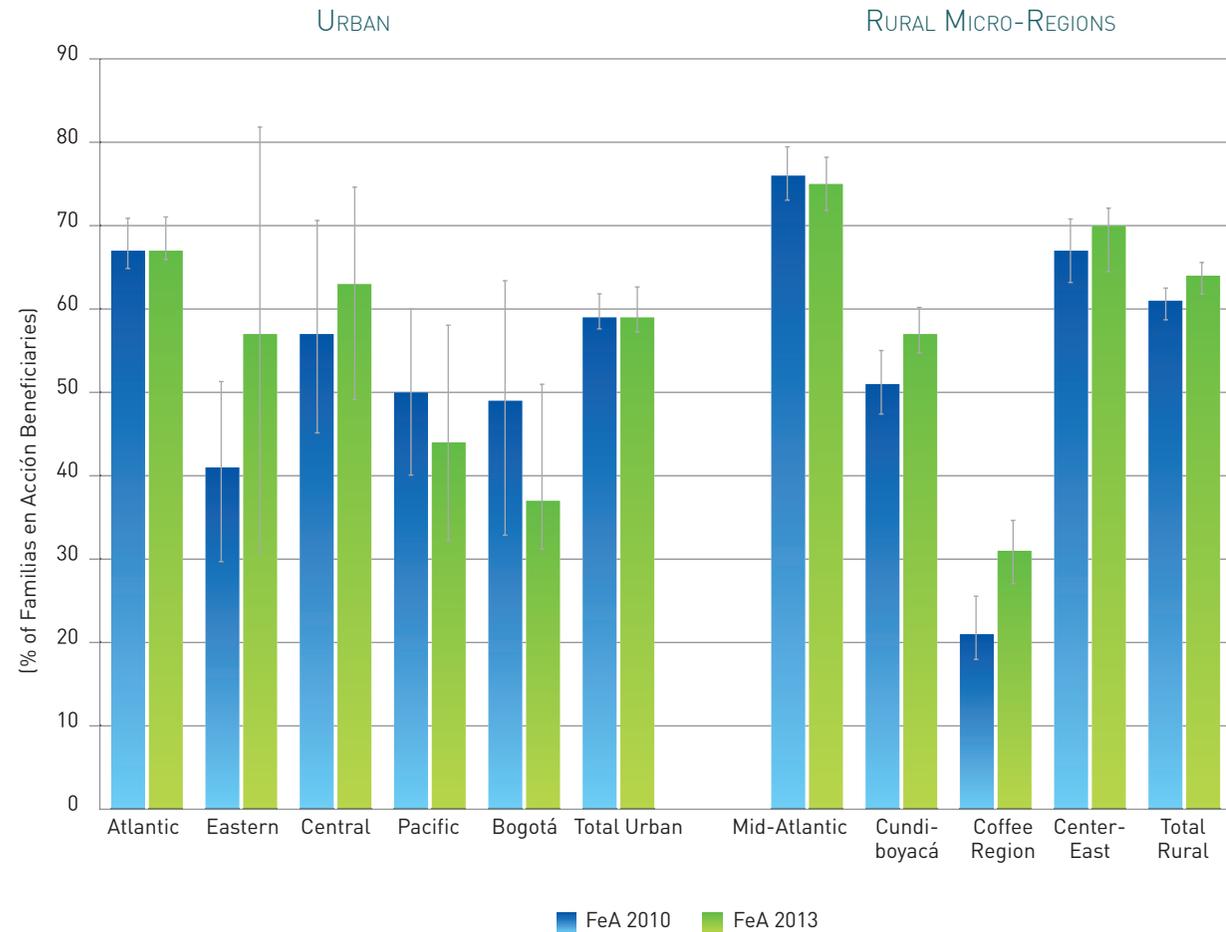*Source:* Authors' calculations based on ELCA 2010 and 2013

The information is based on reported data for households in both waves of the study. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.

4.3. ACCESS TO SOCIAL PROGRAMS

Given that the ultimate purpose of social pro-
grams is to improve the households' quality of
life in the short term and to reduce poverty in
the long term, our goal in this section was to
shed light on households' access to social pro-
grams and relate that to the poverty reduction
evidenced in the survey. Figure 4.4 presents the
percentage of families registered in the Familias
en Acción program by region, understanding a
group of eligible families as those that belonged
to stratum one[5] and with household members
under eighteen years of age. The coverage of
Familias en Acción in rural and urban areas was
of approximately 60%, although within the rural
area, coverage in the Coffee Region was less
than half what it was in the mid-Atlantic region.
The levels of participation in the rural and urban
areas of the Atlantic region were much higher
than other regions. There is no evidence of a
large expansion of the Familias en Acción pro-
gram between 2010 and 2013, as was expected
given the almost nation-wide coverage it had at
the time of the first wave of the ELCA.

FIGURE 4.4.
FAMILIAS EN ACCIÓN BENEFICIARIES BY AREA, REGION, AND YEAR (PERCENTAGE OF HOUSEHOLDS).

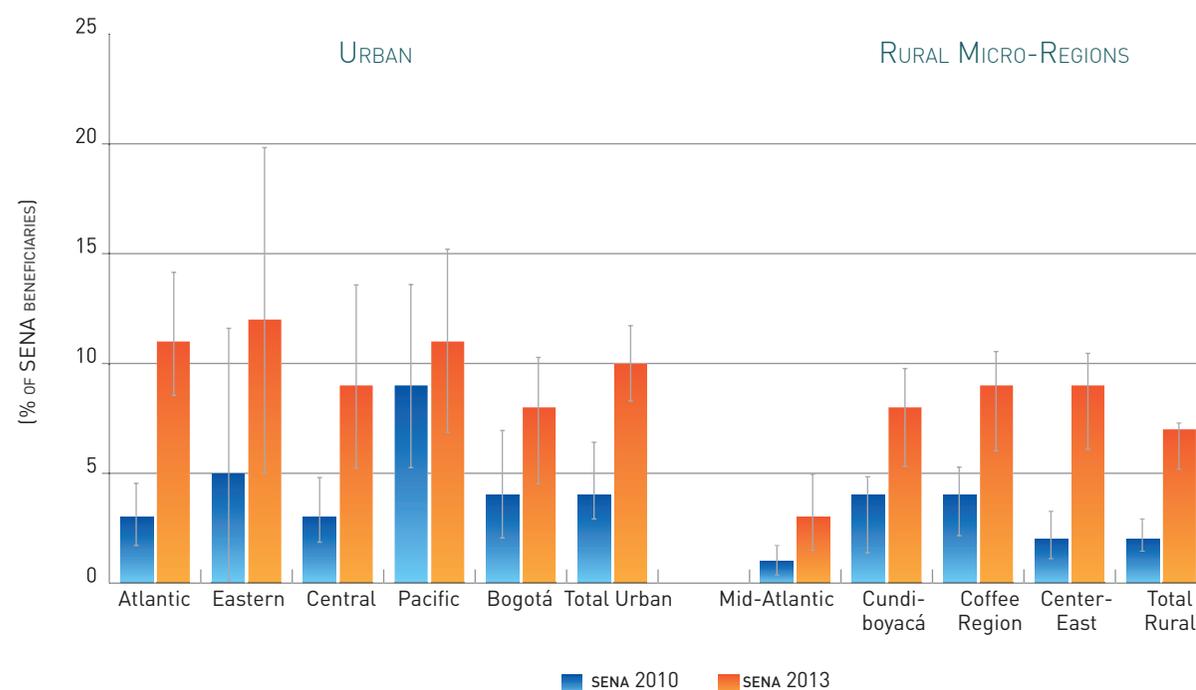*Source:* Authors' calculations based on ELCA 2010 and 2013

The figure shows the percentage of households among those eligible that were beneficiaries of the Familias en Acción program; that is, those that belong to stratum one in the urban area and have members under eighteen years of age in the urban and rural areas. The information is based on reported data for households in both waves of the study. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.

5. The eligibility criteria for different social programs are provided by the Sisbén level. Given that ELCA does not have precise information of the households' Sisbén levels, the socioeconomic stratum is used as a proxy for the Sisbén level.

To calculate the coverage of SENA programs, our target population comprised those households with members whose education levels were higher than ninth grade. As shown in Figure 4.5, first, there was greater coverage in the urban area, which is consistent with the average levels of education in these two areas and, second, there was a significant increase in the availability of SENA training courses between 2010 and 2013. Even though coverage in the rural area was of less than a digit, the increase of coverage for 2013 is noteworthy.

Figure 4.6 presents the households' access to ICBF services, whose coverage is calculated with respect to the number of strata one or two families with children under six. Within the urban area, 7% of the households had access to services provided by ICBF in 2010 and this went up to 21% in 2013. The expansion of the services provided was significant, especially in the Atlantic and Central Regions and Bogotá. ICBF program coverage was 12% in the rural area in 2010, and it increased to 38% in 2013. Based on a simple exercise, comparing the main activity of women household heads or spouses in 2010 and 2013, we were able to shed light on the fact that the expansion of ICBF services allows women more time available to participate in the labor market.

FIGURE 4.5.
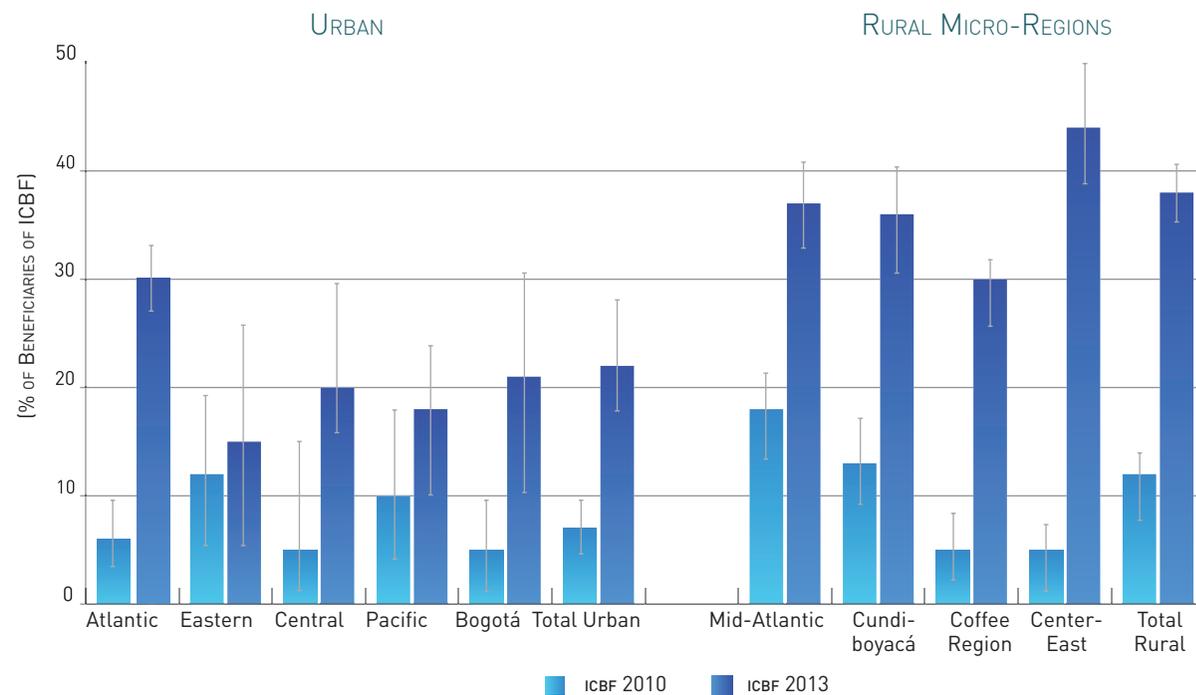### SENA BENEFICIARIES BY AREA, REGION, AND YEAR (PERCENTAGE OF HOUSEHOLDS).

Source: Authors' calculations based on ELCA 2010 and 2013

The figure shows the percentage of households that are SENA beneficiaries. The target population are all households that have members with a ninth grade education or higher. The information is based on reported data for households in both waves of the study. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.

FIGURE 4.6.

ICBF BENEFICIARIES BY AREA, REGION, AND YEAR (PERCENTAGE OF HOUSEHOLDS).

URBAN   RURAL MICRO-REGIONS

(% OF BENEFICIARIES OF ICBF)

Atlantic Eastern Central Pacific Bogotá Total Urban   Mid-Atlantic Cundi-boyacá Coffee Region Center-East Total Rural

■ ICBF 2010   ■ ICBF 2013

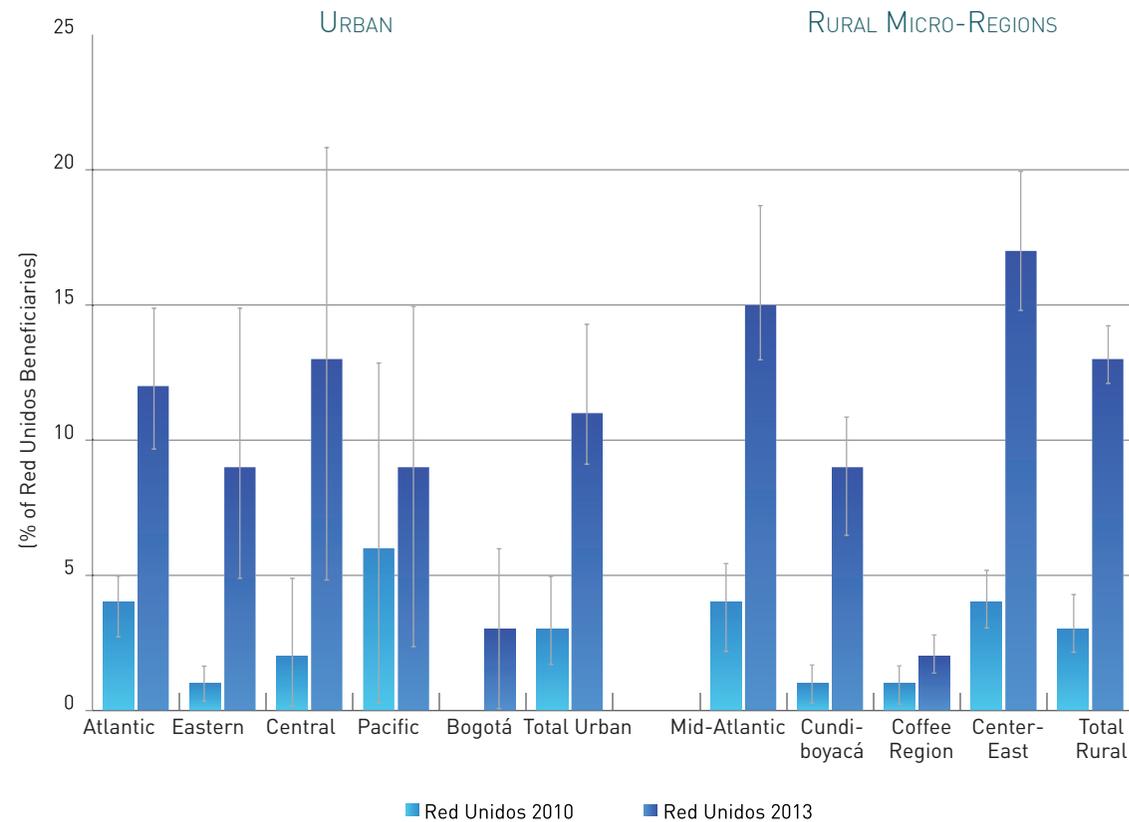*Source:* Authors' calculations based on ELCA 2010 and 2013

The figure shows the percentage of households that are ICBF beneficiaries. The coverage of this program is calculated taking into account the number of households with children under six in the urban and rural areas and that belong to strata one or two in the urban area. The information is based on reported data for households in both waves of the study. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.

→ María Blanca Rincón of the Villa Hermosa neighborhood (Medellín) dreams of receiving a subsidy from the State to help her with her difficult financial situation. She has never in her life received a thing.

One last program that is considered and presented in Figure 4.7 is the Red Unidos program, which is much newer than those previously mentioned. It is therefore no surprise that for the 2010 – 2013 period, there is evidence of a great expansion in the program's coverage, calculated considering all the households in stratum one. Red Unidos focuses on the extremely poor population and the ELCA data shows that it concentrates on assisting the rural population.

Figure 4.7.
Red Unidos beneficiaries by area, region, and year (percentage of households).
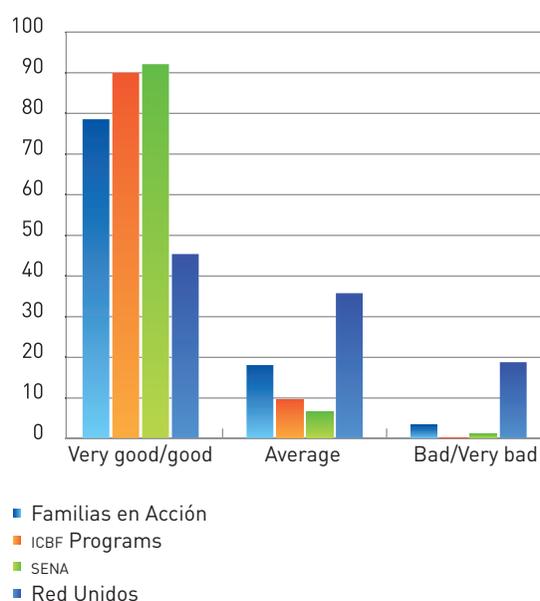

Source: Authors' calculations based on ELCA 2010 and 2013

The figure shows the percentage of urban strata one households that are beneficiaries of Red Unidos. The information is based on reported data for households in both waves of the study. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.

Health service coverage in both waves and areas was quite high and stable (between 93% and 95%). Coverage of the contributory system and the subsidized system was different between the areas, at a ratio of 70/30 in the urban area and 12/88 in the rural area. The prevalence of the subsidized system in the rural area is worrying if it is directly related to informal labor.

Access rates to social programs can be found in other sources of information, including the administrative data of each program. A unique factor pertaining to ELCA is that it is able to query the beneficiaries regarding their perception of the aforementioned social programs with the exception of the subsidized system. Figure 4.8 presents the beneficiaries' perception of these programs, divided into three categories: I) very good or good II) average III) bad or very bad. It is interesting to observe that programs that offer subsidies upon demand such as Familias en Acción, SENA, and ICBF are perceived positively by more than 80% of the users. Whereas Red Unidos, which offers accompaniment in the households and information on other programs, has a favorability of a little less than 50%. These results are very similar in both the urban and rural areas.

Figure 4.8.
Perception of social programs in 2013 by area.

- Familias en Acción
- ICBF Programs
- SENA
- Red Unidos

Source: Authors' calculations based on ELCA 2010 and 2013

The figure shows the perceptions held of the different social programs. The information is based on reported data for households in both waves of the study.

Table 4.5.
Poverty characteristics and dynamics in the urban area (percentage of households).

Variable	Below the poverty line	Rising above the poverty line	Falling below the poverty line	Out of poverty
Familias en Acción (%)	47,83	23,90	26,34	7,67
SENA (%)	8,59	10,65	11,29	7,82
ICBF (%)	14,84	7,66	11,02	3,88
Red Unidos (%)	10,50	6,49	6,72	1,05
Household head wage ($)	567.077	843.834	630.455	1.274.015
Household head works (%)	74,76	80,96	77,30	78,00
Household head age (years)	46,62	45,44	45,06	47,84
Education level of household head (years)	6,28	8,21	8,20	10,30
Sisbén score increased (%)	55,64	64,81	49,19	56,67
Wealth tercile rose (%)	20,66	29,48	21,24	21,81
Health shock medium to high impact (%)	24,39	21,69	18,55	19,17
Violence shock medium to high impact (%)	2,00	1,43	0,54	1,15
Natural disaster shock medium to high impact (%)	10,33	4,68	4,57	3,04

Source: Authors' calculations based on ELCA 2010 and 2013

The information is based on reported data for households in both waves of the study. Households in poverty are those that remain poor in both waves of the survey. Rising above the poverty line refers to those that were poor in 2010 and rose out of poverty by 2013. Falling below the poverty line refers to those that were not poor in 2010 but found themselves poor in 2013. Out of poverty are those families that were not poor in 2010 or in 2013.

4.4. Characteristics that determine permanence in, entry into or exit out of poverty

In this last section, we examine the association of some of the households' characteristics with the dynamics of permanence, falling into or rising out of poverty (below the poverty line calculated at the beginning of this chapter). In particular, a charac-terization of different variables is undertaken for each of the dynamics. As we can see in Table 4.5 and 4.6, for the urban and rural area, respectively, some of the characteristics that are examined are: participation in social programs, participation in the labor market, education level and age of the house-hold head, indicator of improvement in the wealth or poverty indexes (a rise in the Sisbén score and a tercile in wealth), and shocks experienced by the households.

Table 4.6.
Characteristics and dynamics of poverty in the rural micro-regions (percentage of households).

Variable	Below the poverty line	Rising above the poverty line	Falling below the poverty line	Out of poverty
Familias en Acción (%)	63,45	44,85	46,06	28,71
SENA (%)	4,78	5,57	5,34	7,98
ICBF (%)	18,02	10,29	13,99	10,11
Red Unidos (%)	16,93	12,18	9,67	6,09
Household head works (%)	74,75	79,60	75,06	80,83
Household head age (years)	49,14	49,52	49,24	50,00
Education level of household head (years)	3,66	4,26	4,31	5,15
Sisbén score increased (%)	55,16	58,61	48,09	51,07
Wealth tercile rose (%)	23,22	27,94	19,85	22,42
Health shock medium to high impact (%)	20,62	20,90	24,68	23,30
Violence shock medium to high impact (%)	0,84	1,16	0,51	0,69
Natural disaster shock medium to high impact (%)	13,83	10,19	10,94	12,44

Source: Authors' calculations based on ELCA 2010 and 2013

The information is based on reported data for households in both waves of the study. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.
 Households in poverty are those that remain poor in both waves of the survey. Rising above the poverty line refers to those that were poor in 2010 and rose out of poverty by 2013. Falling below the poverty line refers to those that were not poor in 2010 but found themselves poor in 2013. Out of poverty are those families that were not poor in 2010 or in 2013.

The tables report the average of each of these characteristics for the following four groups in the two waves of surveys: those that have always been poor, those that were poor in 2010 and rose above the poverty line by 2013, those that were not poor in 2010 but who fell below the poverty line in 2013, and lastly those households which have never been poor.

With a first look at the data in the figures in this chapter, we are able to identify characteristics, which seem to go hand-in-hand with poverty or the other way around. A direct relationship can be seen in the case of three of the four social programs, which were previously evaluated with respect to poverty. Specifically, in Figures 4.9 and 4.10, we can see that for the urban and rural areas, respectively, the households that suffered a greater level of poverty were more closely accompanied by programs such as Familias en Acción, ICBF and Red Unidos. In the rural area, this same pattern is repeated with the exception of households that had never been below the poverty line in which the participation in ICBF programs was lower (this could be due to these households' access to other types of early childhood services). It is interesting to note that this was not the case for the SENA program. As shown in Figure 4.11, SENA seems to be the only program that promotes and accompanies the households in rising above the poverty line in rural areas. In the urban area, this same pattern seems to repeat with the exception of households that had never been below the poverty line, where participation in SENA programs was lower (this could be due to these households' access to other types of higher education institutions).

Figure 4.9.

PARTICIPATION IN SOCIAL PROGRAMS BY POVERTY DYNAMICS FOR THE URBAN AREA (PERCENTAGE OF HOUSEHOLDS).
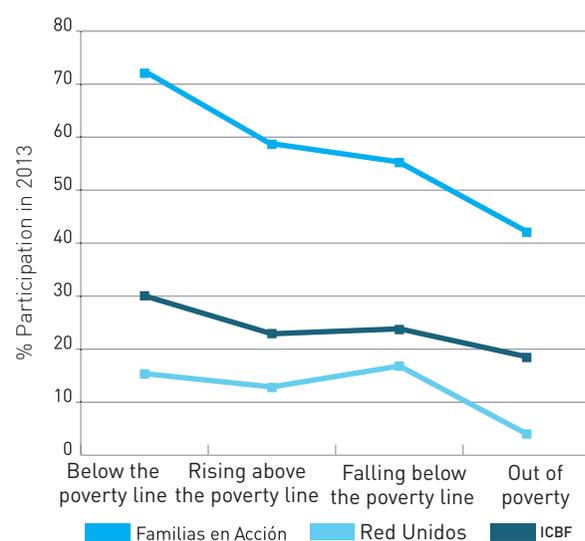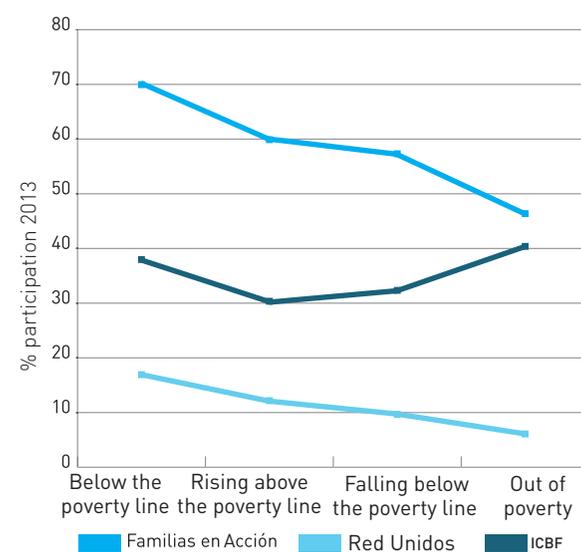

Source: Authors' calculations based on ELCA 2010 and 2013

The information is based on reported data for households in both waves of the study.

Figure 4.10.

PARTICIPATION IN SOCIAL PROGRAMS BY POVERTY DYNAMICS FOR THE RURAL MICRO-REGIONS (PERCENTAGE OF HOUSEHOLDS).
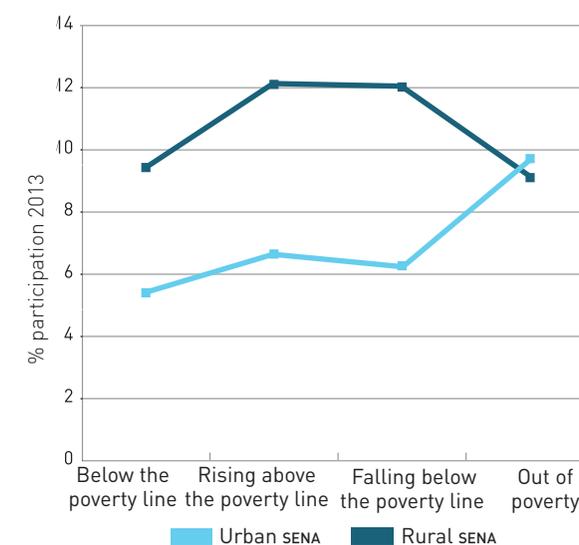

Source: Authors' calculations based on ELCA 2010 and 2013

The information is based on reported data for households in both waves of the study. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.

Figure 4.11.

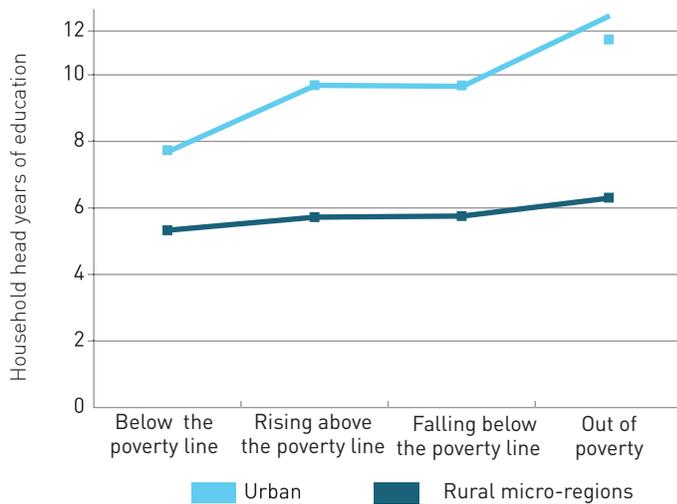PARTICIPATION IN SENA BY POVERTY DYNAMICS BY AREA (PERCENTAGE OF HOUSEHOLDS).

Source: Authors' calculations based on ELCA 2010 and 2013

The information is based on reported data for households in both waves of the study. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.

To analyze the characteristics of the household head, we considered whether she/he worked, their level of education and their age. Of the data reported in Tables 4.5 and 4.6, it is notable that the average work participation of the household head was higher in households which were not below the poverty line with respect to those that were, but it is also evident that participation in the labor market was four percentage points higher for households which were coming out of poverty with respect to those that were just falling below. This can be due to the fact that the condition of poverty being measured included only monetary conditions. Furthermore, there is no evidence that the age of the household head is a determining factor in the transitions into and out of poverty. Insofar as education, it is interesting to see that in both the rural and the urban areas, it is positively and very clearly linked with the households rising above the poverty line (see Figure 4.12).

FIGURE 4.12.
EDUCATION LEVEL OF HOUSEHOLD HEAD BY
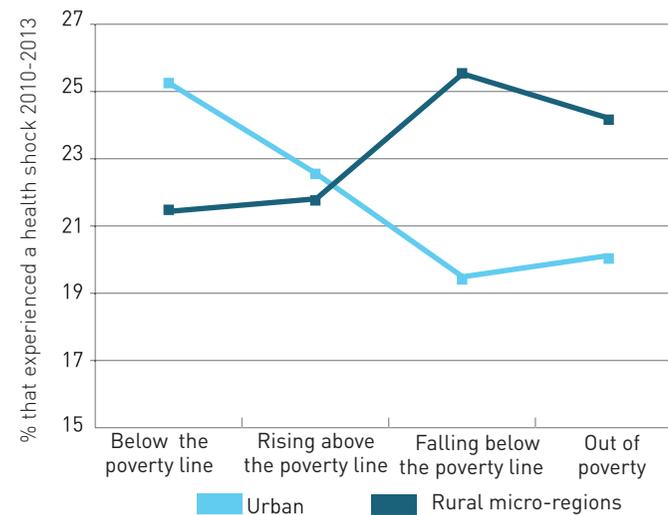POVERTY DYNAMICS
(YEARS OF EDUCATION).

Source: Authors' calculations based on ELCA 2010 and 2013

The information is based on reported data for households in both waves of the study. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.

FIGURE 4.13.
HOUSEHOLDS THAT EXPERIENCED SOME KIND OF
HEALTH SHOCK BY POVERTY DYNAMICS
(PERCENTAGE OF HOUSEHOLDS).

Source: Authors' calculations based on ELCA 2010 and 2013

Households which experienced at least one medium-high impact health shock. The information is based on reported data for households in both waves of the study. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.

Finally, we analyzed the improvements that the households may have experienced in terms of wealth indicators and the Sisbén score. To determine poverty, these indicators take into account additional factors to those that are strictly monetary and short-term. Tables 4.5 and 4.6 clearly show that the households rising above the monetary poverty line were those that were increasing their wealth level on the wealth index and on the Sisbén score the most. Similarly, those households that were falling below the poverty line in monetary terms presented the lowest increase in their Sisbén score and on the wealth index.

There seems to be no clear relationship between experiencing shocks between 2010 and 2013, and rising above or falling below the poverty line. This can be due to the temporality of the shock with respect to the poverty measurement being used at the time of the survey, or it could indicate fast recovery from shocks. A very interesting pattern that can be observed in Figure 4.13 is that the health shocks experienced by the households in the urban and rural areas had very different impacts in terms of poverty. In the urban area, these shocks seem to have affected the poor to a lesser extent, whereas, in rural areas, the opposite happened, possibly due to the households' type of health insurance. Another issue to highlight is that, in the urban area, both the violence and natural disaster shocks had a far greater impact on the poor —almost double— than on those who were not poor.

→ Every night, the living room and three bedrooms in the Palacios Campo household become collective dormitories. Almost 35 people sleep there.

→ Simijaca (Cundinamarca). Tomás Calderón Ávila, 84 years old, lives with his spouse, Abigail Solano, 71, who has Parkinson. Their daughters take care of them.

Conclusions

In sum, the results presented in this chapter imply two general conclusions. On the one hand, when considering the indicators of monetary poverty and the households' per capita expenditure, we can observe a notable poverty reduction in the dynamics of the Colombian households between 2010 and 2013. This was especially true for the urban area of the Atlantic region and for the rural area of the Center-East micro-region. However, when analyzing poverty indicators such as the Sisbén score or the wealth index by its principal components (which capture more structural characteristics of household wealth such as the asset ownership or housing materials), we can see that the households reduced their poverty but that these reductions were not as significant as the changes observed in terms of the monetary indicators.

On the other hand, by 2013, there was a higher participation of Colombian households in different social programs such as: Familias en Acción, SENA, ICBF services, and the Red Unidos. By analyzing the dynamics of permanence, and the transition into and out of poverty, we can see that the majority of these programs focus on the households that remain in poverty. These programs are well-accepted among Colombian households, especially those which provide subsidized help on demand.

References

Angulo, R., Azevedo, J., Gaviria, A. and Páez, G. (2012). "Movilidad social en Colombia". *Documento* CEDE 43, pp. 1-30.

DANE (Departamento Administrativo Nacional de Estadística). (17 de mayo de 2012). Pobreza monetaria y multidimensional en Colombia. *Boletín de prensa*.

DANE (Departamento Administrativo Nacional de Estadística). (31 de julio de 2013). Pobreza monetaria año móvil julio 2012-junio 2013. *Boletín de prensa*.

Filmer, D. and Pritchett, L. (2001). "Estimating Wealth Effects without Expenditure Data or Tears: An Application to Educational Enrollments in States of India." *Demography*, Springer, 38:1, pp 115-132.