

# CHAPTER 1

## INTRODUCTION TO THE COLOMBIAN LONGITUDINAL SURVEY BY THE UNIVERSIDAD DE LOS ANDES (ELCA BY ITS ACRONYM IN SPANISH): A SIX-YEAR PANEL STUDY – 2010-2013-2016<sup>1</sup>

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→ Three years ago, in 2014, Alba Robayo, Rodrigo, and their two daughters Sara (9 years-old) and Cristián (5 years-old) in front of their home in Buenavista (Boyacá). Their livelihood comes from agriculture.

→ The Faculty of Economics at the Universidad de los Andes began designing the longitudinal survey in 2007. Between 2007 and 2010, together with a group of national and international experts,<sup>2</sup> it was decided that the survey will follow the course of twelve years: the head of the household, their spouse, and children under the age of ten in around ten thousand rural and urban households. Thus, the Colombian Longitudinal Survey by the Universidad de los Andes - ELCA, was born. Its purpose was to contribute to gaining a better understanding of certain dynamics, including the following: children's development, members of the household's socioeconomic conditions, actions taken to deal with shocks and their impacts in the mid and long-term, land tenure and production in rural areas, changes in the labor market, the construction of social capital, and social and political behavior.

In the period between the ELCA baseline in 2010 and the second round of monitoring in 2016, the country went through important changes, such as the phenomenon of La Niña -that affected more than 80% of the country's municipalities-, the design and implementation of public policy that deals with comprehensive care in early childhood (known as 'From zero to forever' or 'De cero a siempre' in

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1. The ELCA modules were revised in 2015 by an academic committee led by: Renata Pardo, Raquel Bernal, Juan Camilo Cárdenas, Leopoldo Fergusson, Ana María Ibañez, Adriana Camacho, Fabio Sánchez, Andres Moya, and Rafael Santos. Karim Fajury and Nicolás Fuertes were ELCA research assistants who helped with the process. Also, we would like to thank the support provided by the National Planning Department (DNP for its acronym in Spanish) for reviewing and pilot testing this follow-up.
  2. For more information, see: <https://encuestalongitudinal.uniandes.edu.co/en/elca/academic-committee>

Spanish), the approval of the victims and land restitution law (Law 1448 of 2011), and the negotiations between the Colombian Government and the FARC-EP guerrillas, the diverse cease-fire agreed between the parties, and the signing of the Peace Agreement, among others: all shown in Figure 1.1.

### 1.1. THE ELCA 2010 AND 2013

ELCA's sample<sup>3</sup> is comprised of 10,800 households: 6,000 urban and 4,800 rural. The urban households are representative on a national level for socio-economic strata 1 – 4 and for five (5) geographic regions: Bogotá, the Central region, the Eastern region, the Atlantic region, and the Pacific region (the Andean Pacific municipalities are not included). The rural households are representative for small farm producers for (4) micro-regions: Atlántica Media, Cundiboyacense, Eje Cafetero, and Centro-Oriente.

The baseline was established in 2010: 10,164 households were surveyed (5,446 urban and 4,718 rural). To accomplish this task the university contracted approximately 80 people including surveyors, supervisors, and psychologists who were in charge of the children's anthropometric and cognitive tests. The book *Colombia in Motion 2010* presents a descriptive analysis of the households in topics such as: poverty and wealth conditions, negative shocks and the coping strategies households adopt, access to and use of health services, the labor market, the status of children, and ownership of land in rural areas.<sup>4</sup>

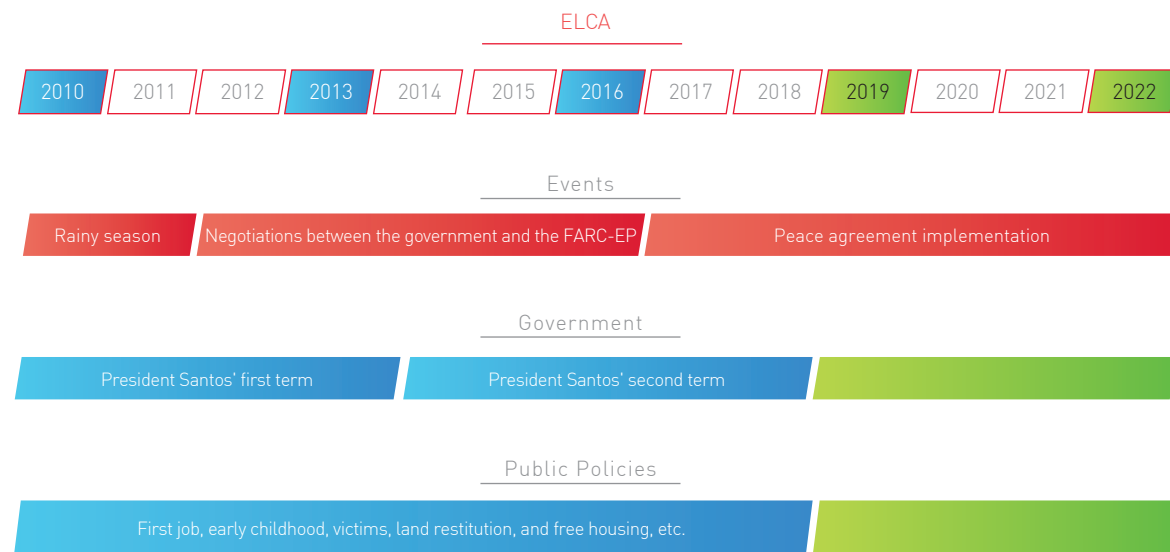
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3. The sample is probabilistic, stratified, multistage, and cluster, with a selection of municipalities based on demographic and socioeconomic characteristics.

4. To access the book, please click on the following link: <https://encuestalongitudinal.uniandes.edu.co/en/publications/colombia-in-motion/2011>

**FIGURE 1.1.**

THE MAIN CHANGES IN THE COUNTRY IN THE SIX YEARS SINCE THE ELCA BEGAN



Source: Authors' own calculations

In the period between the ELCA baseline in 2010 and the second round of monitoring in 2016, the country went through important changes, such as the phenomenon of La Niña -that affected more than 80% of the country's municipalities-, the design and implementation of public policy that deals with comprehensive care in early childhood (known as 'From zero to forever' or 'De cero a siempre' in Spanish), the approval of the victims and land restitution law (Law 1448 of 2011), and the negotiations between the Colombian Government and the FARC-EP guerrillas.

The first round of monitoring was undertaken in 2013, which covered 9,261 actual household surveys (4,681 urban and 4,580 rural), and, on this occasion, the firm Sistemas Especializados de Información –SEI S.A was contracted to gather the survey data. This allowed to undertake an analysis of the changes that had taken place between 2010 and 2013 regarding the people being monitored.<sup>5</sup> The book *Colombia in Motion 2010-2013* contains the following information for this period: the household's dynamics, their vulnerability and actions taken to deal with shocks, poverty effect, access to social programs, the evolution of children and young people for different developmental elements, an analysis of Colombian public policy, levels of participation and prosocial behavior, and changes in terms of access to land and use of time.

The usefulness of this information has also allowed different studies to be undertaken, which have explored subjects such as: the role that access to and formality regarding land tenure have on a household's wellbeing, effects the armed conflict has had on rural producers and the decisions they make in these contexts, the importance of investing in roads to improve standards of living in rural areas, the gap in children's oral development on both a socioeconomic level and by zone, as well as the strategies that could be more effective to improve equality, and the role that access to savings and credit have on mitigating household shocks, among others.<sup>6</sup>



→ The Álvarez Tapia family live on a plot of land in houses they built themselves in Chinú (Córdoba) with their 13 children between 0 and 16.

## 1.2. ELCA 2016

The second round of monitoring was undertaken in 2016, and there were some adjustments to the design of the survey: the purpose of which was to capture the life-cycle stage of the households (the development of children and young people) as well as relevant information on the changes in the country between 2013 and 2016. This was specifically related to the peace process with the FARC-EP guerrillas. Changes made to the questionnaire were piloted in the second half of 2015 in three municipalities and to 99 households (39 urban

and 60 rural). The results allowed for adjustments to be made for the final design of the modules and the tests applied according to the follow up children (as a Longitudinal Survey children have been getting older) in the second ELCA follow-up round. Table 1.1 shows the changes that have been made in the tests for the children being followed.<sup>7</sup>

The 2016 follow-up round took place between May and October of this year so that the municipalities and households were visited during the same months as the baseline, which is particularly important in rural micro-regions due to the periodicity

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5. The ELCA 2010 and 2013 databases can be downloaded for free at <https://encuestalongitudinal.uniandes.edu.co/es/datos-elca/>. There are two units that have restricted access: children and lands. How to request access is included in the access policy.
6. The publications, newsletters, and research carried out by the ELCA can be found at: <https://encuestalongitudinal.uniandes.edu.co/es/publicaciones/articulos-publicados>.
7. The children who were monitored were less than ten years old in 2010 and they were the children, stepchildren, or grand-son/ daughter of the head of the household and their spouse.



**TABLE 1.1.**  
TESTS AND MEASUREMENTS OF THE CHILDREN BEING FOLLOWED-UP

Tests	2010	2013	2016
Anthropometric (size and weight)	0-4 years	0-5 years	6-11 years
Verbal ability PPVT	3-9 years	3-9 years	6-16 years
Socio-emotional: ASQ:SE		0-6 years	
Socio-emotional: SDQ			6-16 years

Source: Authors' own calculations



→ The Álvarez Tapia family children in 2014 in Chinú (Córdoba). The family's income mainly comes from a pool hall called La Esperanza, which is run by Inés Álvarez - the grandmother head of the household.

of the crops. On this occasion, the firm Sistemas Especializados de Información –SEI S.A was contracted again to gather the survey data.

There were 66 operatives working in the field who were organized into twelve work groups. Each group was led by a supervisor under whom worked four (4) surveyors and one (1) evaluator. The evaluator was in charge of giving the followed-up children the different tests (anthropometric, SDQ, and PPVT tests).

### 1.2.1. HOUSEHOLD COVERAGE

The total sample for follow-up in 2016 consisted of 9,853 households; this included the 10,164 baseline households -minus 334 households made up of senior citizens over 64 or households that had no children-, and an additional 23 rural households. The distribution of the sample was 5,275 urban households and 4,578 rural households. As this is a longitudinal survey, the people being followed-up were surveyed in their current place of residence in order to know, if they continue to live in or if they have left their household, if they have joined another household, and/ or if they have migrated. However, for reasons relating to cost and economies of scale, households and individuals were not included in the survey if they were living in municipalities 'far away' from those which were visited between 2010 and 2013. 'Far away' refers to those municipalities that are more than ninety minutes

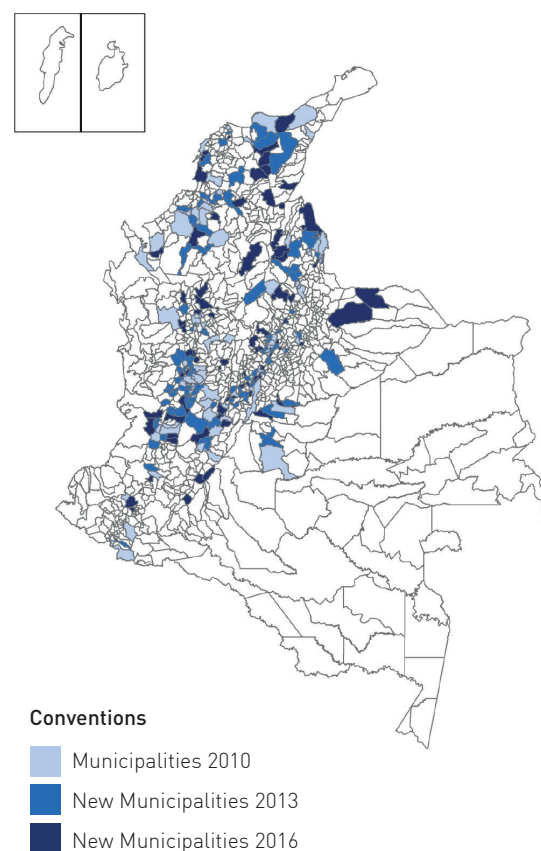


away using public transport from those visited in previous rounds.

However, despite this follow-up constraint due to migration, the number of municipalities to be visited increased from 183 in 2013 to 235 in 2016: an increase of 28.4%. The baseline sample was for 80 municipalities, which implied that in six years, there were three times as many municipalities to visit. Figure 1.2 shows the geographic distribution of the sample in each one of the rounds: the lightest color represents the baseline municipalities and the darkest color represents the municipalities that were visited as a result of migrations in each subsequent round. The dynamics of the mobility of the sample for a longitudinal study means that there are more territorial entities being visited that have ten or less follow-up households; in 2010, there were only two, in 2013 this number increased to 106, and in 2016 to 155 (please see Table 1.2).

One important issue is that, to maintain the representativeness of the ELCA with regards to the baseline, it is necessary to reduce churn –or the loss of households and individuals– in the sample. In 2016, there was a positive balance with 89.5% of households being covered. This is the result of, among other factors: the different monitoring strategies (call center, text messages); the organized and methodical operation in the field (some households were visited up to six times); and the incentives that were given to the individuals and households monitored.<sup>8</sup>

**FIGURE 1.2.**  
GEOGRAPHIC DISTRIBUTION OF THE SAMPLE



Source: ELCA 2010, 2013 and 2016.

**TABLE 1.2.**  
MUNICIPALITIES IN THE SAMPLE BY RANGE OF NUMBER OF HOUSEHOLDS

Range of number of households	Municipalities		
	2010	2013	2016
Less than 10	2	106	155
Between 10 and 50	23	26	32
Between 50 and 100	30	28	24
More than 100	25	23	24
<b>TOTAL</b>	<b>80</b>	<b>183</b>	<b>235</b>

Source: ELCA 2010, 2013, and 2016. Authors' own calculations

This result shows that although the sample grew substantially in geographic terms, as well as in other aspects, churn was only 10.5% in six years. As Table 1.3 shows, we estimated that between the 2010-2013 rounds of monitoring the churn rate was 6% and between 2013-2016 it was 4.8%. When observing behavior by zone, we can see that the largest coverage is from those households that, in the baseline, are located in a rural micro-region (96.6%) compared to those that are located in an urban zone (83.3%). There was a total of 4,394 nationally representative urban households in stratus 1 to 4 within the following regions: Atlantic, Pacific<sup>9</sup>, Central, Eastern, and Bogota; and a total of 4,424 representative rural households comprised of small producers in four micro-regions (Atlántica Media, Eje Cafetero, Cundiboyacense, and

8. The Fundación Éxito has been one of the ELCA's permanent partners; once a month Éxito's vouchers are raffled among the surveyed households, which intends to incentivize the households keeping their information up to date.  
9. As mentioned in Colombia in Motion 2010 and Colombia in Motion 2010-2013, ELCA is representative for the Pacific region but does not include the Andean Pacific municipalities due to cost-related issues.

**TABLE 1.3.**  
SURVEY COVERAGE OF HOUSEHOLDS BY ZONE

Baseline zone	2010	2013		2016		Attrition rate	
	Baseline (1)	Surveyed households (2)	Coverage % (3)	Surveyed households (4)	Coverage % (5)	2010-2013 % (6)	2013-2016 % (7)
Urban	5.275	4.681	88,7	4.394	83,3	11,3	6,1
Rural	4.578	4.580	100,0	4.424	96,6	0,0	3,4
<b>TOTAL</b>	<b>9.853</b>	<b>9.261</b>	<b>94,0</b>	<b>8.818</b>	<b>89,5</b>	<b>6,0</b>	<b>4,8</b>

Source: ELCA 2010, 2013, and 2016. Authors own calculations

Note: Column 1 presents the households that were followed-up in the sample according to the zone they were in 2010. Column 2 shows the households surveyed in 2013, including those that had divided, so the number is greater than in column 1 because the division of households was greater than the loss of households in the period. Columns 3 and 5 are the percentage of coverage for each year with respect to the baseline. Column 4 shows the households surveyed in 2016, including the divided households (679 households). Columns 6 and 7 show the attrition rate or loss of homes between each round.



→ In 2017, José Petro sees the photo taken by ELCA's team in 2014 in which he appears with his daughters Consuelo and Violeta in the previous visit to Cereté (Córdoba).

Centro-Oriente). In total, from all the zones, 536 households have migrated from a rural micro-region to an urban area, and 72 households from an urban to a rural area.

When undertaking an analysis on an urban and rural micro-region level using the baseline, as shown in Table 1.4, we found that for urban areas, the highest coverage is in the Atlantic region (99%) and the lowest is in Bogota (68.6%). This could be due to the high spatial mobility of households in the capital, either because people migrate to other municipalities or because they frequently move within the city, which makes it more difficult to find them in the next follow-up round. For the rural micro-regions, we found that in the Atlántica Media region, coverage reaches 108.6% due to the high number of divided households, and the lowest is the Eje Cafetero with 86.5%, which is a zone that is characterized by many people migrating. It is important to note that in 2016 we managed to re-establish households that could not be located in 2013. There was a total of 351 re-established households: 65.8% were in urban zones, particularly in the Eastern region.

### 1.2.2. PEOPLE BEING FOLLOWED-UP

Evaluation of ELCA's coverage, taking into account the individuals chosen for follow-up as part of the panel data, shows that, for 2016, coverage was 78.2%, and it was greater in the rural micro-regions (83.9%) than in the urban regions (72.8%).



**TABLE 1.4.**  
HOUSEHOLD COVERAGE BY REGION 2010-2016

	2010	2013	2016	Coverage 2010-2016 %	Re-established 2013-2016
<b>URBAN HOUSEHOLDS</b>	5.275	4.681	4.394	83,3	<b>231</b>
- Atlantic Region	1.107	1.067	1.096	99,0	49
- Eastern Region	1.074	947	910	84,7	60
- Central Region	1.098	937	852	77,6	44
- Pacific Region	1.081	1.016	908	84,0	31
- Bogotá	915	714	628	68,6	47
<b>RURAL HOUSEHOLDS</b>	4.578	4.580	4.424	96,6	<b>120</b>
- Atlántica Media Region	1.134	1.178	1.232	108,6	27
- Cundi-boyacense Region	1.176	1.158	1.117	95,0	34
- Eje Cafetero Region	1.170	1.123	1.012	86,5	42
- Centro-Oriente Region	1.098	1.121	1.063	96,8	17
<b>TOTAL</b>	<b>9.853</b>	<b>9.261</b>	<b>8.818</b>	<b>89,5</b>	<b>351</b>

Source: ELCA 2010, 2013, and 2016. Authors own calculations

Also, as shown in graph 1.1, coverage was slightly higher for children than for heads of the household or spouses in 2010 (79.7% and 77.5%, respectively). Table 1.5 presents the data, by round, for the total number of people surveyed: in 2016, 35,713 people were surveyed, 17,525 in urban areas and 18,188 in rural areas (baseline zone). From the total of survey individuals, 19,769 were monitored by the ELCA: 13,146 heads of the household and spouses and 6,623 children. Changes in households over time -such as the arrival of new members due to birth, migration, or the creation of new families- led to

4,687 new people being surveyed as context members.<sup>10</sup> Although the objective is to have panel data for individuals who have been chosen for follow-up, due to household conformation over time, over the six years of monitoring, the ELCA found 3,201 context members who have been in each of the three measurements.

Table 1.6 presents the people being followed-up in the survey for whom there is information in each of the three rounds (2010-2013-2016). The balanced panel data has data from the different ELCA



→ 2014. From left to right, Consuelo Petro with her father José Petro and her sister Violeta Petro. They have looked after their father in a farm in Cereté (Córdoba) since their mother died.

modules, for 18,933 people: 8,807 in the baseline were surveyed in an urban zone and 10,126 in a rural micro-region. When dividing by follow-up criteria, in 2010 there was a total of 6,343 children who were less than 10 years old and 12,592 heads of the household or their spouses.

In 2016, 5,499 people for follow-up could not be found.<sup>11</sup> Graph 1.2 shows that the main reasons for not surveying or loss of households were: 38% rejection, 36% households could not be found by the different monitoring strategies, and 16% could not be found in a municipality within the geographic range of the operation.

One way to check if the loss of a sample can lead to a bias in the results is to compare the answers in some of the indicators between those people who

10. *Context members* are those members of the household who, when the survey was first being carried out, were not chosen to be monitored. This corresponds to individuals who were not in the households when the surveys were carried out in 2010 and 2013.

11. Between 2013 and 2016, 836 people were re-established in the survey who could not be found in the 2013 round.

**TABLE 1.5.**  
PEOPLE INTERVIEWED IN HOUSEHOLDS BEING FOLLOWED-UP BY BASELINE ZONE

	Total	Urban	Rural Micro-regions
<b>1. Total people surveyed in 2010</b>	<b>43.198</b>	<b>22.179</b>	<b>21.019</b>
1.1. Total follow-up people	25.268	12.852	12.416
1.1.1. Heads and spouse	16.953	8.793	8.160
1.1.2. Children	8.315	4.059	4.256
1.2. Context people	17.930	9.327	8.603
<b>2. Total people surveyed in 2013</b>	<b>39.913</b>	<b>19.644</b>	<b>20.269</b>
2.1. Total follow-up people	21.841	10.458	11.383
2.1.1. Heads and spouse	14.604	7.119	7.485
2.1.2. Children	7.237	3.339	3.898
2.2. Context people	18.072	9.186	8.886
2.2.1. New context people	6.134	3.551	2.583
<b>3. Total people surveyed in 2016</b>	<b>35.713</b>	<b>17.525</b>	<b>18.188</b>
3.1. Total follow-up people	19.769	9.351	10.418
3.1.1. Heads and spouse	13.146	6.293	6.853
3.1.2. Children	6.623	3.058	3.565
3.2. Context people	15.944	8.174	7.770
3.2.1. New context people	4.687	2.769	1.918
3.2.2. People who have been in the context since 2010	3.201	1.785	1.416

Source: ELCA 2010, 2013, and 2016. Authors own calculations



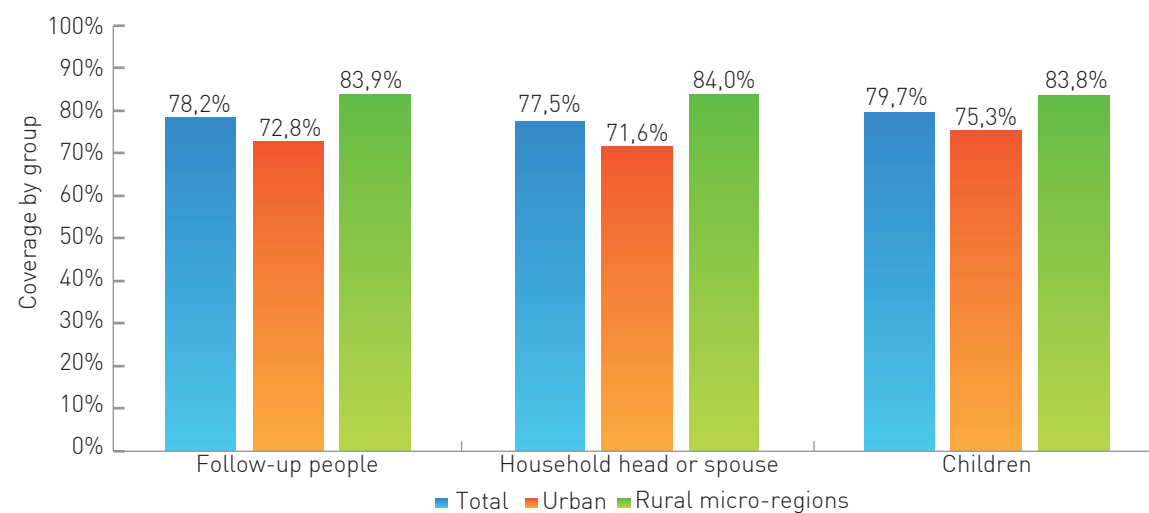
**TABLE 1.6.**  
PEOPLE INCLUDED IN THE PANEL DATA IN EACH ROUND

Follow-up criteria	People in the panel 2010-2013-2016		
	Total	Urban	Rural
Head of the household	7.237	3.523	3.714
Spouse or partner	5.353	2.411	2.942
Children	6.343	2.873	3.470
<b>TOTAL</b>	<b>18.933</b>	<b>8.807</b>	<b>10.126</b>

Source: ELCA 2010, 2013, and 2016. Authors own calculations

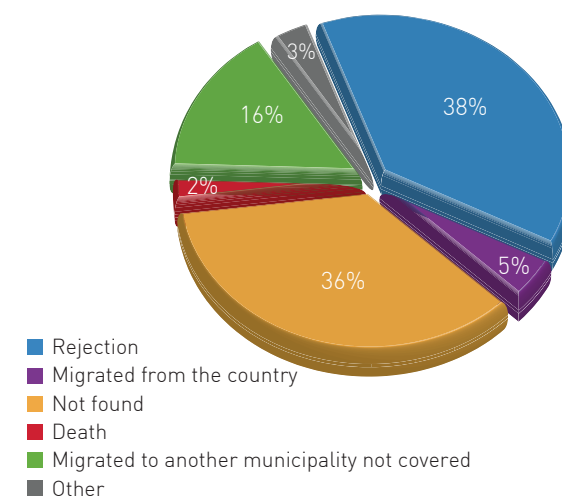
Note: Relationship and zone corresponds to 2010

**GRAPH 1.1.**  
COVERAGE BY ZONE AND SAMPLE OF PEOPLE FOR FOLLOW-UP



Source: ELCA 2010-2013-2016

**GRAPH 1.2.**  
MAIN REASONS FOR HOUSEHOLD  
LOSS IN 2016



Source: ELCA 2010-2013-2016

were surveyed in 2016 and those who were not. To do so, the baseline information should be used and then it should be checked if there are characteristics that are statistically different between the respondents and non-respondents (Duncan & Kalton, 1987). Three indicators were taken into consideration for this analysis: (i) average years of education, (ii) age and, (iii) per capita annual expenditure. Table 1.7 shows the results and if they are statistically significant. In general, the people who were included but who were not surveyed in 2016 had studied for longer and had a higher annual expenditure. In other words, the sample could be biased towards the less educated and those with a lower standard of living – measured by expenditure. When we analyzed by zone, we found that in the urban zones this is only true for the average years of education. For the rural micro-regions, the people are slightly younger and more educated with higher expenditure levels. It is important to note that in this zone the levels of education are very low in both cases.

The strategies used to correct the possible bias for non-response include: rethinking the survey in the areas in which it has become less precise, making adjustments to the longitudinal weighting factors so that they take into account these changes, the use of balance panel data (people who took part in each of the three rounds) for analysis, among others. This implies that for the next follow-up round it should be taken into consideration the possibility of a refreshment of the sample and an adjustment to the longitudinal weighting factors.



→ 2014. María Alicia Torres, her husband Octavio Ballesteros, and their adopted son Felipe García live in Susa (Cundinamarca). Every day the donkey brings the milk that has been taken from her cows.



**TABLE 1.7.**

COMPARISON OF THE CHARACTERISTICS OF THE PEOPLE SURVEYED IN 2016 COMPARED WITH THOSE IT WAS NOT POSSIBLE TO SURVEY

Total	People being followed-up		
	Surveyed 2016	Not surveyed 2016 (lost)	Significance
People being followed-up	19.769	5.499	
Average years of education	5,37	6,76	***
Average age	30,52	30,6	
Per capita annual expenditure	3.553.094	4.685.043	***
Urban	People being followed-up		
	Surveyed 2016	Not surveyed 2016 (lost)	Significance
People being followed-up	9.351	3.501	
Average years of education	7,28	8,14	***
Average age	30,94	31,38	
Per capita annual expenditure	5.567.525	6.069.719	
Rural Micro-regions	People being followed-up		
	Surveyed 2016	Not surveyed 2016 (lost)	Significance
People being followed-up	10.418	1.998	
Average years of education	3,63	3,97	***
Average age	30,15	29,06	*
Per capita annual expenditure	1.758.257	1.952.390	*

Source: ELCA 2010, 2013, and 2016. Authors own calculations

Note: The comparison of characteristics is according to information from the baseline and takes into consideration the weighting-factors. The significance levels are signaled as \*to10%, \*\*to 5%, and \*\*\* to 1%.

### 1.2.3. SURVEYING THE ELCA COMMUNITIES

In order to control for the characteristics of the communities to which the households in ELCA's samples belong, the survey has a module called 'community', which will be given to at least two leaders in the particular area. They could be community, religious, educational, or social leaders. The questionnaire asks about topics such as infrastructure, public services, institutional supply, shocks, and problems that the community face. Additionally, for the rural micro-regions, questions were included relating to land conflicts and agricultural markets.

This survey was given in the neighborhood or rural settlement with at least five ELCA households. In 2010, there were a total of 792 'community' surveys, 568 in urban areas (71.7%) and 224 in rural areas (28.3%). For the first follow-up in 2013, there is information available for a total of 975 communities: 547 from urban areas (56.1%) and 428 from rural areas (43.9%) of which 755 can be use as panel data with 2010. In the second follow-up, 970 communities were surveyed: 693 can be used as panel data during the three years, 483 in urban zones (69.7%) and 210 in rural zones (30.3%).



→ 2017. Three years later, María Alicia Torres and her son Felipe García continue to live in Susa (Cundinamarca). The family's income comes from agriculture and livestock. Her brother-in-law Germán Ballesteros is on the right (wearing a hat) with a farm laborer.

The ELCA is the only longitudinal survey in the country that has had two follow-up rounds and coverage during the 2010-2016 period.



### 1.3. FIRST ANALYSIS OF ELCA'S SIX-YEAR FOLLOW-UP

The ELCA is the only longitudinal survey in the country that has had two follow-up rounds and coverage during the 2010-2016 period.<sup>12</sup> This information allows for panel data to be constructed for both households and individuals, which, unlike cross-sectional data has the advantage that the differences observed in households and individuals are not the result of the differences in the composition of the population. They, instead, allow for more precise indicators to be generated for the changes in the country during the last six years.

ELCA's information allows researchers to understand and clarified household transitions; their determinants; the effect of decisions made -for example attending or not-attending a school-; migration; the use of land; and the ways of responding to shocks, as well as their consequences on quality of life. This book presents a first approximation of the analyses that are possible as a result of the richness of information that the ELCA has to offer after two follow-up rounds.

Each chapter shows how the longitudinal information allows, like never before in Colombia, for transitions in households over a period of six (6) years to be understood. The chapters focus on specific topics that do not exhaust the many questions that



→ 2014. In Copacabana (Antioquia), Liliana María Herrera takes her granddaughter to skating classes every day. By 2017, the girl had stopped attending these classes.

12. The country does have a longitudinal study that focuses on topics relating to social protection. The Longitudinal Study for Social Protection (ELPS by its acronym in Spanish) was undertaken by the DANE and, to date, its baseline year was 2010 and only some regions were followed-up in 2015.





→ 2017. In Copacabana (Antioquia), José Fernando Mejía and his wife Liliana María Herrera spend a lot of time with their grandchildren Nicole and Emanuel; they always spend the afternoons together while their parents are at work.

can be answered with the ELCA, future research to be undertaken, and the importance of this as a baseline for the post-conflict process currently taking place in the country.

In Chapter 2, Carmen Elisa Flórez, María Alejandra Galeano, Nicolás Fuertes, and Lina María Castaño address the issue of adolescent motherhood using a life course approach. The purpose of this chapter

is to analyze, based on ELCA longitudinal information, the effect socio-cultural factors that change throughout life on an individual, interpersonal, and context level have on the probability of becoming a

mother for females between 12 and 19 years old. They study used a population of women who were between the ages of 15-24 in 2016, and it incorporated follow-up women included in the study as well as those who were context members of the households during the three rounds<sup>13</sup>. The results shown in this chapter are a first approximation, thanks to the longitudinal richness of the ELCA, of the analysis of topics as complex as the determinants and factors associated with early motherhood in Colombia.

In Chapter 3, Ana María Ibañez and Julian Arteaga use the unique opportunity that the ELCA offers to study the reasons for the country's high levels of migration, the characteristics, and the possible consequences. The chapter analyses the migration strategies in households, the characteristics of those who migrate, potential factors that could explain the decision to migrate; and the prior and subsequent conditions to the decision to migrate were evaluated. The chapter also examines the potential returns from migration and how these are related to the migration strategies and the change in the occupational sector. This is only one example of the potential the survey has to analyze migration in Colombia and the studies comparing the conditions in which migrants and non-migrants live.

In Chapter 4, Rafael Santos analyses the module on shocks, which are problems or events that effect households involved in the ELCA's economy. This chapter evaluates factors such as how vulnerable households are, what the most frequent shocks are depending on where the households are located (rural or urban areas), and the relationship between level of wealth and vulnerability. These analyses demonstrate how a survey such as the ELCA is an important input to be able to understand household's insurance mechanisms, vulnerability according to household characteristics, and access to measures that make a household more resilient to different shocks.

In Chapter 5, Adriana Camacho and Yabra Muvdi undertake a descriptive analysis of the evolution of poverty between 2010 and 2016, taking into consideration the possibility that the panel data show the transitions in the households' living conditions. As part of this analysis, they estimate the incidence of monetary poverty and also take a broader approach that uses the multidimensional poverty index (MPI) for Colombia and the wealth index.<sup>14</sup> The purpose of this chapter is to answer questions that are not only about the net changes in the indicators, as cross-sectional surveys do, but also questions it is possible to answer with longitudinal information such as the ELCA. For example, *Have more people fallen into poverty than those who have escaped it? Is*

*access to public services better? and, Has participation in government social programs changed or not?* This analysis shows the possibilities, after two follow-up rounds, of evaluating the effect of the social programs and the different household events on changes in living conditions.

In Chapter 6, Catherine Rodríguez and Nicolás Fuertes, have addressed one of the most central and innovative topics that the ELCA has dealt with since it began: children and young people. They have constructed a data panel to undertake a study on the condition of their health, education, child labor, social capital, consumer habits, risks, expectations, dreams, and life plans. The analysis in the chapter shows how the longitudinal information allows some of the most significant changes that children and young people in the sample have experienced to be understood from 2010 and then six years after in 2016. This is an example of how important the ELCA is as an input for the development of public policies for children and young people in the country.

In Chapter 7 Rachid Laajaj and Freddy Felipe Parra-Escobar undertook a descriptive analysis of the structure of rural property in the four ELCA micro-regions and the possible relationship with the productive decisions that households make (access to credit and productive investments). This chapter

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13. Information was collected for all members of the household, regardless of whether they were included in the follow-up; however, the units to be reviewed in more detail were only undertaken with the subjects who were part of the longitudinal follow-up. This implies that the women in all the units were included as well as those who were not, or known as "context".

14. The wealth index was estimated from 2010 in the ELCA and it corresponds to a multivariate indicator for household's ownership of durable assets.

also reviews the possible transmission of inequality in access to land on the cognitive development of future generations. ELCA's rural module is a unique opportunity to carry out an in-depth analysis of household's changes in rural micro-regions that are associated with rural development policies in the process of being implemented under the framework of the peace agreement with the FARC-EP.

In Chapter 8, Paula Juliana Sarmiento and Juan Camilo Cárdenas explore dynamics associated

with prosocial behavior<sup>15</sup> for the ELCA households and individuals. The chapter looks at the dimensions related to participation, help, and trust, and it explores some phenomena that can be concluded about the factors that can explain the reason for these behaviors in Colombian households. It also analyzes the possible effect of either belonging to or not belonging to State programs and individual's participation.<sup>16</sup>

In Chapter 9, Leopoldo Fergusson, Andrés Moya, and Francisco Eslava examine two dimensions of

the political behavior in Colombian households': the way and the degree to which they relate to politics, undertaking a longitudinal analysis of the patterns and characteristics between 2013 and 2016.<sup>17</sup> In 2016, they also included questions on Colombian households' perspectives and attitudes regarding the peace process between the government and the FARC-EP. One of the topics included is the perspective that the effect that the peace process has on the standards of living and the actions that individuals are willing to undertake to achieve reconciliation, particularly with ex-combatants from this armed group.

15. Prosocial behavior is an individuals' capacity to get involved in activities that, as they are outside the market and its relationship with the state, provide others in the community with wellbeing or constructs what is known as "social capital".

16. This chapter was written with help from the Bolívar Davivienda Foundation.

17. In 2013, for the first time in the ELCA, a module was included on behavior and politics in which questions were added about electoral behavior and interest, identification with parties and candidates, and degree of interest in politics, etc. In 2016, this was once again included to undertake longitudinal follow-up.



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→ Yomaira Tapias Álvarez lives with her mother Inés María Álvarez in Chinú (Córdoba). When ELCA visited her in 2017, her daughter Isabela Álvarez Tapias was only one year and two months old and was still being breastfed.









→ Paola Pino Palacios is seventeen years-old and she became pregnant when she was only fifteen. She appears in the photo with her son, two year-old Alan Yared, and they live in Barrancabermeja with her grandparents.