Opportunities for reducing poverty and inequality in Costa Rica

WORLD BANK POVERTY AND INEQUALITY ASSESSMENT
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Executive summary
The purpose of this poverty assessment is to shine a new light on poverty, inequality, and its drivers in Costa Rica. The report provides a descriptive overview of poverty trends in the country and examines why the poorest do not reap the benefits of economic growth. It provides high-level policy directions, i.e., areas that merit a high level of attention according to the results of the analysis and broad implications of the findings for policy makers. The report should be interpreted as a contribution to the debate within Costa Rica on how to improve the country’s model of growth for the benefit of all. It is important to mention at the outset that the analysis presented in this report was completed at the time the conflict in Ukraine started. The conflict is expected to have substantial repercussions in Costa Rica and the rest of the Latin America region. The conflict is expected to hit the poorest hardest, as food and fuel — the prices of which are expected to increase due to the conflict — make up a large part of their consumption. However, these possible implications of the conflict are not reflected in the report.

Costa Rica is a regional – and even global – success story in many ways. As a beacon of social and political stability, the country is an example for Latin America and the Caribbean. Costa Rica has experienced almost uninterrupted economic growth for more than half a century, while safeguarding the environment and its national resources. It is one of the few countries in the world that has expanded its forest cover over recent decades, effectively integrating this expansion with agricultural production and boosting its eco-tourism sector. In accordance with the country’s economic success, regional comparisons based on the World Bank’s international poverty lines indicate that Costa Rica’s poverty rates are among the very lowest in the region. Reflecting these achievements, Costa Rica recently joined the Organization for Economic Cooperation and Development (OECD), an intergovernmental organization made up of many of the most developed countries in the world.

Over the decade before COVID-19, Costa Rica continued to make progress in reducing multidimensional poverty. Costa Rica measures multidimensional poverty based on an index with 19 indicators that can be grouped in five dimensions of wellbeing: education, health, housing and internet access, employment, and social assistance. Over the decade before COVID-19, important progress was achieved especially in improving 2 of the 19 indicators in the index: high-school completion and internet access. School attendance among secondary school-age children is now almost universal and internet access is now commonly available. However, not all of the news is good. Although school attainment is increasing and youth stay in school longer (a trend we confirm in this report) learning outcomes are not improving. A focus on quality of both instruction and learning in school is now key to ensure that the widest possible segment of the population can support and benefit from Costa Rica’s high-value-added growth strategy. Moreover, as shown by Costa Rica’s multi-dimensional poverty index, employment and labor market outcomes deserve attention. Noncompliance with labor rights, for instance, is common and needs to be addressed.

Despite Costa Rica’s successes, reduction in income poverty and inequality has stalled. A renewed focus on Costa Rica’s growth model is needed to ensure that it includes—and structurally enhances the prospects of—those at
the bottom of the income distribution. Although economic growth was positive in the decade prior to COVID-19, average incomes in the bottom 40 percent of the income distribution (left-hand side of the blue line in Figure ES1, panel a) remained unchanged. Accordingly, poverty rates, measured in accordance with Costa Rica’s national definition (which is more ambitious than the international poverty line of US$5.5), were about as high at the start of the pandemic as they had been a decade earlier (blue line in Figure ES1, panel b). Comparisons based on the World Bank’s internationally comparable poverty definitions show that over this period, Costa Rica was one of the few countries in the region that did not experience substantial declines in poverty. Furthermore, the pandemic led to a rapid but transitory increase in income poverty. During the 2021 economic recovery, incomes increased and poverty rates declined, but did not revert to prepandemic levels.

Moreover, Costa Rica’s growth model fails at reducing income inequality, an enduring challenge for the country. Income inequality was already high in 2010 and, with incomes in the top of the income distribution growing while incomes remained stagnant in the bottom of the distribution, the inequality rate continued to worsen (red line in Figure ES1, panel b). Again, Costa Rica was an outlier in this respect, as many other countries in the region experienced declining income inequality. By the start of the COVID-19 pandemic, Costa Rica’s income inequality rate was among the highest in the entire Latin America and the Caribbean region. The pandemic further accentuated income inequality, as declines in income were even more pronounced in the bottom of the income distribution than they were at the top (red line in Figure ES1, panel a). Moreover, it appears income inequality continued to increase during the 2021 economic recovery.

Figure ES1. Real per capita income growth (panel a) and poverty trends (panel b) 2010-21

Source: Authors’ calculations based on the Encuesta Nacional de Hogares (ENAHO, 2010–21) for Costa Rica.
Though poverty rates are higher in rural areas, antipoverty efforts require a clear focus on cities and urban areas as well. Because 72.5 percent of Costa Rica's population lives in urban areas, poverty is predominantly an urban issue in absolute terms. Out of a total of 1.35 million poor people, 930 thousand (almost 70 percent) live in urban areas. Moreover, although higher than in urban areas, poverty rates in rural areas and outside of the country's central region are converging to those in urban areas. Over the decade before COVID-19, poverty in rural areas declined from 31 percent in 2010 to 27 percent in 2019. In contrast, poverty rates showed a modest increase in urban areas, from 21.5 percent in 2010 to 22.7 in 2019. The poverty rate increased especially quickly in urban areas during 2020, though it did decline quickly in 2021. In rural areas, meanwhile, poverty grew by almost 3 percentage points, but did not decline as quickly in 2021 as in urban areas.

The livelihoods of historically disadvantaged groups are not improving and deserve special attention in antipoverty initiatives. Several subgroups of the population, including single mothers, children, Nicaraguan migrants, Afro-descendants, and indigenous populations have structurally higher poverty rates. The fate of these subgroups changed little over the decade before COVID-19 and worsened with the pandemic (Figure ES2). Single mothers in Costa Rica, for instance, clearly experience fundamental challenges. Their labor market income tends to be low and income from public and private transfers does not make up for this. More than half of all single mothers can be classified as poor and if anything, their situation deteriorated over the past decade.

Figure ES2. Poverty rates for different demographics and traditionally disadvantaged groups

Source: Authors' calculations based on the Encuesta Nacional de Hogares (ENAHO, 2021) for Costa Rica.

Note: All poverty rates calculated at the individual level, except for those of households with and without children.
The composition of income sources of poor households is changing, with implications for antipoverty initiatives. The income generation of less-educated adult males suffered a setback over the decade before COVID-19, with this group’s contribution to the income of households lower in the income distribution eroding over the period. In addition, while the income-generating capacity of men in the bottom of the income distribution was declining, the income-generating capacity of women did not improve. The elderly, moreover, are increasing as a share of the population. As a result, the contribution of labor to the income of poor households has declined substantially and reliance on pensions (especially noncontributory) and public transfers has increased compared to a decade ago (see figure ES3). According to data from 2021, the share of labor income is lower for the first two quintiles in rural areas, a factor contributing to higher rural poverty rates.

Figure ES3. Sources of household income by income quintile (2010 and 2021).

Enhancing the labor market outcomes of less-educated workers is key to addressing poverty. The relative position of (especially male) workers with low levels of education had been deteriorating before COVID-19 and this trend was exacerbated by the pandemic. In the decade before COVID-19, most sectors reduced their reliance on workers with lower education levels. Employment growth, moreover, was negative in the three largest sectors employing mostly less-educated workers: wholesale and retail trade, the primary sector, and manufacturing. Not only have employment opportunities for less-educated male workers declined, but the security in the labor market and returns to work for this group leave ample room for improvement: nearly half of all less-educated workers can be classified as poor (Figure ES4, panel a). Provision of quality education and training is key to ensuring that labor supply matches the demands of Costa Rica’s high-value-added growth strategy.
There is ample opportunity for enhanced inclusion of women in the labor market. Women’s labor market outcomes are worse than those of men in most respects (Figure ES4, panel b). Regional comparisons indicate that enhanced inclusion of women in the labor market is attainable. Costa Rica’s female labor force participation rate is among the lowest in the region and markedly below that of other countries in the region with comparable GDP per capita. Enhanced female employment would help to address a structurally higher poverty rate among women, a phenomenon that is especially pertinent during the years when they are raising children and—as mentioned above—for those who are single mothers. Most economically inactive women of prime working age cite caregiving obligations as the key reason for being out of the labor force. Among economically inactive men (a much smaller group to begin with) this is rarely the case. First priorities are therefore to enhance the provision of affordable and quality alternative care options and to achieve a more equal distribution of caregiving tasks.

Costa Rica’s social assistance system helped avoid an increase in poverty rates over the decade before COVID-19. This can be considered a success of the social assistance system. Pensions and public transfers ensured that ageing and declining labor incomes in the bottom of the distribution did not result in declining overall household income (see also Figure ES3 above). Of the major social assistance programs, noncontributory pensions reduce poverty and inequality the most. Nearly half of all noncontributory pension benefits reach the poorest decile of the population (Figure ES5, panel a) and the size of the pensions is significant; for households in the poorest decile, the ratio of pensions to market income is close to 50 percent (Figure ES5, panel b). Other public transfers are well targeted, but generally represent a modest share of household income.
What more can be done to enhance the success of Costa Rica’s social assistance system? In the last decade, Costa Rica took several key steps to enhance its social assistance system. These included improvements in the identification of the poor through the social registry known as SINIRUBE and the piloting of ways to expand the coordination of programs through a strategy called Puente al Desarrollo. While these improvements have been effective, the system, due to a high number of programs, remains fragmented, which creates inefficiencies in the allocation of scarce resources. Furthermore, because the main social programs support families with school-age children and those with elderly members, the coverage of poor adults of working age is low. In addition, in the current context of high imported inflation an increase in the generosity of social assistance programs is needed urgently. Finally, a detailed analysis of the capacity of social protection programs is called for to ensure an effective response to external shocks such as those associated to climate change.

The effects of climate change will become increasingly pertinent for the poor. This report provides some first insights into the implications of climate change for the poor and are intended as a starting point for further analysis. Food prices, for example, are expected to come under upward pressure with climate change—and expenditure on food as a share of total consumption is already especially high in poorer households. The effect of climate change on the tourism industry is another example. Building on Costa Rica’s successful forest conservation efforts, prior to the pandemic it had become a significant source of employment, but may come under pressure with advancing climate change. The implications of increasingly common extreme weather events will also be felt more by the poorest. In urban areas, for instance, the poor are more likely to live in flood-prone areas and thus be at risk from increasingly irregular precipitation and extreme rainfall events. Effective disaster-risk management to protect the poor will thus become a
priority of increasing importance. Social assistance, too, will increasingly have to serve as a tool to offset the negative effects of climate change and extreme weather events.

There are opportunities to address poverty through the inclusion of structurally disadvantaged groups in efforts to achieve green growth and decarbonize Costa Rica’s economy. Efforts to mitigate climate change can be designed so that they enhance labor market opportunities for low-educated workers, integrate women and structurally disadvantaged groups, and benefit the poorest. Small landholders and indigenous communities are key agents in Costa Rica’s efforts to reduce emissions from deforestation and forest degradation (REDD+) and to sell carbon emission credits. Through their involvement in the management of standing forests, these households and communities receive support for enterprise development and sustainable uses of natural assets. Efforts to reduce the carbon footprint of agriculture and transport hinges on the behavioral change of smallholders and public transit users (usually poorer households); such efforts can also be beneficial to the poor if they generate new opportunities for less-educated workers and are designed with special attention given to the needs and capacities of Costa Rica’s poorest.

To sum up, this poverty assessment identifies several policy takeaways. Economic growth has to become more inclusive to help lift families out of poverty and lower perennial inequality. This will require the enhancing of the labor market prospects of less-educated males and the inclusion of women in the labor market. Investment in education quality and human capital accumulation are core to this. Subgroups who deserve special attention in antipoverty initiatives include single mothers, children, Nicaraguan migrants, Afro-descendants, and indigenous populations. There is room for continued improvement in the poverty-reducing effects of social assistance by reducing the fragmentation of programs, increasing the coverage of poor working-age adults, and adjusting for inflation. Including a focus on poverty and marginalized populations in the country’s ambitious climate change mitigation and decarbonization plans will be key to lowering poverty.

Going forward, it is critical to the guiding of policy that several data constraints be addressed. One such data constraint relates to the situation of two groups who have been at a disadvantage historically: Afro-descendants and indigenous populations. The latest analysis for these groups is based on the 2011 census. The national household survey does not enable the generation of new evidence on these groups. An updated perspective on these groups would be highly beneficial for policy efforts. A strong understanding of the geospatial overlap between ‘pockets’ of poverty and exposure to extreme climate events will also be key to targeting policy responses. The expected effects of climate change on the poor differ by locality and climate zone, so that policy solutions will have to be tailored at the geospatial level. Current data, however, provide limited opportunity for granular geospatial poverty analysis. The new census will enable the generation of new evidence on Afro-descendants and indigenous groups. It will also enable the updating of Costa Rica’s poverty map and hence is expected to be of vital importance for in-depth analysis of the implications of climate change for the poor.
Chapter 1 Introduction
Why this report?

Healthy economic growth in the decade before COVID-19 did not benefit Costa Rica’s poor. Costa Rica experienced a prolonged period of relative stability and macroeconomic growth before the pandemic. From 2010 to 2019, GDP per capita (in constant US$) grew by nearly 20 percent. However, as documented in this report, poorer Costa Ricans did not benefit from this growth. Incomes of those in the bottom 40 percent of the income distribution remained stable and, as a result, poverty rates were effectively flat over this period. In contrast, the incomes of richer Costa Ricans grew and income inequality, already high, increased as a result.

This is not a new phenomenon; in Costa Rica, macroeconomic growth and income growth in the bottom of the income distribution had already decoupled in the 1990s. The World Bank’s last poverty assessment for Costa Rica, published in 2007, notes that “the benefits of growth were relatively equally distributed” in the late 1980s and early 1990s.1 As a result, poverty (and extreme poverty) rates declined significantly during that period. However, as described in the 2007 poverty assessment, this pattern changed in the middle of the 1990s. Although aggregate economic growth remained healthy, income growth rates of the poor began to slow. By the early 2000s, real income growth in poorer households had come to a halt and in the period after that poverty rates remained constant.

While economic growth did not drive poverty rates down, COVID-19 did push them up. The pandemic resulted in mobility restrictions and a collapse in tourism, which contributed to a rapid economic contraction and a decline in GDP by 4.1 percent in 2020. Labor market indicators deteriorated quickly: for example, and unemployment nearly doubled from 9 to 17.5 percent. The pandemic led to a rapid increase in income poverty and—to a lesser extent—inequality. COVID-19 sharply reduced the incomes of Costa Ricans in the bottom 40 percent of the income distribution and accordingly drove an increase in poverty rates. The reduction in income was not as pronounced for the top 60 percent and as a result inequality also increased during COVID-19.

The purpose of this poverty and inclusion assessment is to shine a new light on poverty, inequality, and its drivers. The report provides a descriptive overview of poverty trends and examines why the poorest do not reap the benefits of economic growth. It provides high-level policy directions, i.e., policy areas that merit strong policy attention according to the results of the analysis and broad implications of the findings for policy makers. However, the document does not provide direct detailed policy recommendations. Rather, the analytics provided in the report are meant to serve as a tool to underpin policy discourse. They provide a broad view of the groups most heavily affected by poverty and describe trends in labor market outcomes and social assistance that are crucial for understanding poverty developments in Costa Rica.

Why now?

A focus on poverty is timely in the wake of the increase in poverty induced by the pandemic. At the time of writing, Costa Rica was recovering from the pandemic and labor market indicators were quickly improving. The country had already phased out its main emergency social assistance measures. In addition, new poverty figures had just become available that showed a significant reduction in poverty rates as the pandemic was subsiding. However, poverty rates had not yet returned to prepandemic levels and there is a real risk that the impacts of the pandemic will continue to reverberate. Some of those who lost their employment during the pandemic may not return to the labor market. Finally, it may take years for some of those who resorted to (possibly negative) coping strategies during times of reduced income to recuperate.

Moreover, the background on poverty matters in light of Costa Rica’s implementation of ambitious reforms. Costa Rica joined the Organization for Economic Cooperation and Development (OECD) at the beginning of 2021. A review of a wide range of policy domains in the years prior to the country’s accession spurred legal and policy changes in accordance with OECD best practices. These have the potential to continue to abet growth in the medium term. As part of broader fiscal consolidation efforts, Costa Rica recently adopted a fiscal rule that limits expenditure in the public sector. Moreover, the country is implementing an ambitious decarbonization agenda: Costa Rica aims to be one of the first, if not the first, country to completely decarbonize its economy, a move with wide-ranging ramifications for agriculture, transport, and the adoption of new technologies. A deep understanding of poverty dynamics in the country is key to ensuring that reforms take the interests of the poorest into account.

Key findings

Positive and negative developments canceled out in the decade before COVID-19, causing poverty rates to be stable. This can be seen in panel a of figure 1.1, which summarizes the key findings presented in this report. Much of the economic growth in the decade before COVID-19 did not benefit the poor. In fact, the labor market opportunities of those with lower levels of education deteriorated over the course of the decade. The ensuing decline in labor market income in the bottom of the income distribution was compensated for by an increase in receipt of social assistance benefits. As a result, real incomes in the bottom of the income distribution remained stable. Accordingly, no nationwide reductions in income poverty could be observed. If anything, income inequality increased during this period.

The COVID-19 crisis pushed poverty rates up and poverty rates remain elevated. The economic contraction during COVID-19 led to a strong reduction in labor incomes in the bottom 40 percent of the income distribution. Emergency social protection efforts could not fully offset this decline in labor income. Poverty and—to a lesser extent—inequality...
increased as a result. Although incomes partly recovered and poverty declined in 2021, they did not revert to their pre-pandemic levels. This is summarized also in panel b of figure 1.1 below.

Figure 1.1 Summary of developments in the decade before (panel a) and period since the start of the pandemic (panel b).

Within this context, Costa Rica faces multiple policy challenges and priorities. The first, as will be clear from the above, is to ensure that economic growth is inclusive and helps to lift families out of poverty. As this report sets forth, this will require the enhancing of the prospects of less-educated male workers. It will also require the inclusion of women in the labor market, for example by reducing the caregiving burden on their shoulders. To lower poverty, several subgroups deserve special attention. These include single mothers, children, Nicaraguan migrants, Afro-descendants, and indigenous populations. Significant investment may be required to successfully continue to address multidimensional poverty. The comparatively low hanging fruits have been picked and there is a risk that climate change will lead to reversals. Investment in data and analysis is also needed. While it is clear that there is geographical variation in poverty rates, the current understanding is not sufficiently detailed for policy advice. A better geospatial disaggregation of poverty data would with the tailoring of policies and identification of groups at risk (for instance, to climate change-induced disasters). There is room for continued improvement in the poverty-reducing effects of social assistance. According to the analysis presented in this report, current social assistance measures are especially effective at lowering poverty among the elderly, but less so among households with children. Including a focus on poverty and marginalized populations in the country's ambitious climate change mitigation and decarbonization plans will be key to lowering poverty. While these plans certainly do provide entry points to include and enhance the situation of the poor, an integrated effort is required to achieve these ends.
The remainder of this report provides the analytical background for addressing these proposed challenges and priorities. Chapter 2 lays out the contextual background necessary to interpret the poverty and equality analysis presented in this report. Chapter 3 discusses poverty trends, the geographical distribution of poverty, characteristics of the poor, and advances in multidimensional poverty. Chapter 4 examines the income sources of the poor, showing that labor income of the poor has been declining while their income from social assistance has been increasing. Chapter 5 focuses on labor market trends and explains why the labor income of the poor has been declining. Chapter 6 describes Costa Rica’s social assistance system and its contribution to poverty reduction. Chapter 7 takes an exploratory look at climate change in Costa Rica, aiming to understand how climate change will affect the poor and what opportunities there are to reduce poverty through climate change mitigation and adaptation initiatives. Chapter 3 to 7 begin with an overview of high-level policy directions, i.e., policy areas that merit strong policy attention according to the findings and broad implications of the findings for policy makers.

In interpreting the findings of this report, it is important to take into account that the analysis was completed before the war in Ukraine started. The war is expected to have significant repercussions in Latin America and Costa Rica is no exception. As food and fuel prices increase due to the conflict, the poor are expected to be especially affected as these expenditure categories make up an important share of their consumption. For instance, as shown in the final chapter of this report, food represents more than 36 percent of consumption in the bottom quintile — more than twice the share of the top quintile. These repercussions are not reflected in this report and will compound the challenges identified in the analysis.
OPPORTUNITIES FOR REDUCING POVERTY AND INEQUALITY IN COSTA RICA
Chapter 2 Background
This chapter lays out the necessary background to contextualize and interpret the poverty trends described in this report. First, it notes that, prior to COVID-19, Costa Rica experienced an extended spell of economic growth with relatively few interruptions. Most of the growth was driven by increased labor (productivity) and capital deepening. Second, it describes the effects of COVID-19 on Costa Rica’s economy, among them a 4.1 percent decline in GDP and a rise in the fiscal deficit and government debt. Third, the chapter discusses important recent policy developments, notably Costa Rica’s accession to the OECD, adoption of a fiscal rule, and implementation of an ambitious decarbonization agenda. Finally, it provides estimates of the strong improvement in school participation over the decade before COVID-19 which, as will be discussed later in this report, helped reduce multidimensional poverty rates.

2.1. Economic growth before the pandemic

This subsection describes Costa Rica’s growth trajectory in the three decades prior to COVID-19. The analysis is based on a recent and detailed World Bank growth report for Costa Rica. As discussed in the report, Costa Rica experienced nearly three decades of relative economic stability before COVID-19. With the exception of the 2009 global financial crisis, economic growth was healthy. GDP grew at a rate of 4.5 percent annually from 1991 to 2017, well above the OECD average. At the end of the three-decade period, Costa Rica’s GDP per capita had doubled and equaled about 27 percent of GDP per capita in the USA—a comparative increase of 7 percentage points.

All main sectors grew, but the services sector made the strongest contribution to GDP growth. In terms of value-added, the services sector grew by 4.7 percent annually on average in the period from 1991 to 2017. By the end of that period the services sector were generating 72.3 percent of Costa Rica’s GDP and employing nearly 7 out of every 10 workers. Two services subsectors—transport, storage & communications and finance, real estate & business—were especially buoyant, seeing annual growth of 8.2 and 6.2 percent, respectively. Although not to the same degree, other sectors exhibited growth as well: agriculture [3.1 percent average annual growth], industry [3.0], and manufacturing [2.5].

Growth was driven predominantly by labor (adjusted for education) and investment in capital. Labor productivity (value-added per worker) grew by 1.69 percent annually, above OECD and regional averages. Within-sector growth resulting from capital deepening was the driving force and explained about 85 percent of total labor productivity growth. The remaining 15 percent of labor productivity growth was due to structural reallocation of labor, mainly from agriculture and industry to the services sector. Total factor productivity (TFP) growth made only a minor contribution to overall economic growth. However, toward the end of the period of study the contribution of labor to growth started to decline while TFP growth picked up.

Although structural reallocation of labor contributed positively to GDP growth, its impact could have been even more pronounced. On the one hand, the labor share of agriculture, a sector with comparatively low productivity, declined from 18 to 13 percent. At the same time, the share of labor in the comparatively high-productivity subsectors of transport, storage & communications, and finance, real estate & business (as a percentage of total employment in services) increased from 8 to 10 percent and from 10 to 14 percent, respectively. On the other hand, the labor share of industry, the sector with the highest productivity, also saw a decline, from 26 to 18 percent. And “other services,” one of the least productive subsectors, increased substantially.

A pattern of offsetting trends in labor reallocation can be observed in the decade prior to COVID-19. Figure 2.1 shows the structural reallocation of labor in action over the period 2010–19. The figure shows average annual growth in employment (y-axis) and value-added (x-axis) per subsector for this period. The size of the balloons represents the share of employment in each industry in 2010. Red and black balloons represent subsectors with an average labor income below and above, respectively, the average for the whole economy. With the exception of construction, value-added growth was positive in all industries. Positive employment growth can be observed for sectors offering both comparatively high and low pay. The former include real estate, transport, and financial and insurance activities and the latter hotels and restaurants and other services. Large subsectors with labor income below the average for the economy—the primary sector, manufacturing, and wholesale and retail—all shed workers.3

3 Further analysis [not displayed] suggests that there were some shifts in gross value added (GVA) and employment growth over time and across industries. Additional research beyond the scope of this report is needed to better explain how those link to policy changes and macroeconomic fluctuations.
Figure 2.1 Structural trends in labor reallocation in the decade prior to COVID-19 contributed to economic growth

An outward-oriented growth strategy lay at the core of Costa Rica’s growth trajectory over the past 30 years. In the second half of the 1990s, Costa Rica successfully began to attract investments from high-tech companies. Over the past two decades foreign direct investment (FDI) as a share of GDP was high even by global comparisons and played an important role in capital formation. However, despite the contribution of FDI (over the period of study, FDI averaged 5.0 percent of GDP), at 20 percent investment as a share of GDP was below the OECD average and the 25 percent investment rate recommended by the Commission on Growth and Development.

Although openness to trade did not structurally improve, the nature of Costa Rica’s exports changed. With some fluctuations, trade as a percentage of GDP increased in the 1990s and peaked in the late 1990s/early 2000s, after which it began to decline. However, in recent years the complexity of Costa Rica’s exports has been consistently increasing and so is the number of export destinations. Medical instruments and orthopedic appliances, in particular, have become an increasingly important part of Costa Rica’s exports. However, primary products including bananas and pineapples continue to be a large component of the country’s export mix. The World Bank’s growth report highlights opportunities to enhance exports through diversification in three subsectors in particular (metals, stone & glass; foodstuffs; and machinery, electrical & transportation) and for increased export of high-quality services with the advance of ICT and connectedness.
Box 2.1 Free trade zones

Costa Rica operates free trade zones that offer a combination of benefits to companies making new investments. Companies operating in free trade zones must meet several terms: they have to satisfy a minimum export requirement or belong to a strategic sector and they have to comply with minimum required investment thresholds in the years after establishment of a presence in a free trade zone. Companies operating in free trade zones benefit from a combination of tax incentives, including exemptions from import and export duties, capital and asset taxes, excise taxes, taxes on profits, etc. In addition, such firms enjoy several nontax benefits, such as assistance with training, selection, and housing of employees.

By 2019, free trade zones played a significant role in Costa Rica’s economy. A study by the Promotora de Comercio Exterior de Costa Rica (Procomer), the government institution regulating Costa Rica’s free trade zones, indicated that the number of companies operating under the free trade zone regime increased from 331 in 2015 to 394 in 2019. Companies in free trade zones are primarily (59 percent) engaged in the provision of services and to a lesser extent the manufacturing of medical equipment (10 percent), foodstuffs (7 percent), electronics (6 percent), and metal and mechanics (6 percent). By 2019, companies in free trade zones generated (directly or indirectly) employment for over 187,000 workers and 8.4 percent of GDP. The average salary in free trade zones was 1.2 times that of the average salary in Costa Rica’s private sector.


Over the past 30 years, Costa Rica has rapidly developed its tourism sector. Costa Rica’s tourism is driven to a large extent by its natural riches, including national parks, beaches, and tropical forests. Accordingly, Costa Rica positions itself as a prime destination for eco- and adventure tourism. The tourism sector was estimated to support almost 13 percent of national employment and generate an equally large share of GDP before the COVID-19 pandemic. It has become an increasingly important component of Costa Rica’s export mix and represented over 20 percent of total exports before the start of the pandemic. The tourism sector employs more women than men and is characterized by low-skill workers and informal employment.

Two labor market challenges characterize Costa Rica’s economy. The first is low female labor force participation and a pronounced gender gap in employment rates. Prior to the pandemic, the female employment rate was 42.8 percent and the unemployment rate stood at 18 percent. The male employment and unemployment rates, in contrast, were 68.2 and 8.6 percent, respectively. Removing barriers to working faced by women and encouraging their entry into the labor force is therefore considered key to enhancing economic growth and increasing household incomes. Annex 1 presents more general background information on gender in Costa Rica.

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A second key characteristic of Costa Rica’s labor market is the relative importance of the informal sector, at least in comparison to other OECD countries. Productivity in the informal sector is below that of the formal sector: while prior to COVID-19 nearly 4 out of every 10 workers were engaged in the informal sector, that sector generated less than a quarter of GDP. Informal work is especially common in the tourism sector, with nearly 6 out of every 10 workers in tourism being employed informally. The high rate of informal employment and comparatively low productivity of informal workers suggests that further formalization should be considered as part of a strategy to spur growth. This report will return to these labor market issues in Chapter 5.

The recent World Bank growth report identifies transport, digital inclusion, innovation, and financial inclusion as key areas for improvement. The quality of transport is low, due to subpar investment in infrastructure and complex and inefficient decision-making processes that discourage investment and renovation. The growth report notes that the inefficient transport sector has knock-on effects for the broader economy and raises the cost of doing business. Investment in transport is therefore considered a high priority. Although Costa Rica compares well regionally in terms of mobile coverage and internet bandwidth, there is room for improvement. There is a clear need to invest more in research and development and foster innovation. To broaden financial inclusion, the report suggests that more competition in the banking sector could help to provide Costa Rica’s population with better access to banking products. Other areas highlighted by the report in which improvements are feasible include property rights and anticorruption measures.

2.2. The economic recession induced by COVID-19

Economic growth had already slowed in the three years before the pandemic. By the first half of 2019, GDP growth was down to 2.2 percent. As noted in the International Monetary Fund’s recent Article IV Consultation for Costa Rica, this slowdown made Costa Rica’s economy more vulnerable to the impending economic shock. The deceleration was induced by a combination of factors including external challenges and severe weather shocks. Moreover, although it enhanced borrowing opportunities in international capital markets, fiscal consolidation and reform efforts (see also section 2.3) initiated in 2018 had moderated growth expectations. Hence, as the IMF consultation concluded, the country’s condition was already fragile at the start of the pandemic.

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6 Note that the term ‘informal’ is used loosely in this discussion, because the definition of informal for employment does not coincide with that for economic sectors.

On March 6, 2020, the first case of COVID-19 was reported in Costa Rica, which was also the first in Central America. In the following days, some isolated measures, such as the suspension of mass events and closure of educational centers where COVID-19 cases had been detected—around 7 percent of the educational centers in the country—were put in place. On March 16, following the recommendation of the National Commission for Risk Prevention and Emergency Assistance, the president passed a decree proclaiming a state of national emergency (Executive Decree No. 42227-MP-S), which enabled faster implementation of administrative and budgetary measures.

During the second half of March, nonmedical interventions were implemented to prevent the spread of the disease. As in many other countries, these interventions included school closings, restrictions on internal mobility, restrictions on gatherings, and international travel controls. Additionally, different efforts to strengthen the health system and increase its response capacity were implemented. On March 18, the first death from COVID-19 was recorded.

Figure B.2.2.1 Despite the initial success, Costa Rica experienced successive waves of COVID-19 cases and deaths

Source: Authors’ representation based on Ritchie et al. (2020).
Although the number of new cases continued to grow, this increase was initially slow—less than 3 percent a day for the next two months. The government gradually began to ease some restrictions in mid-May 2020, because the curves of both new cases and new deaths were considered stable and the projections were suggesting that the situation was under control. A month later, however, the number of new cases accelerated and some restrictions had to be put back into place.

Aiming to reduce the number of infections with the least possible economic impact, in late June the so-called “hammer and dance strategy” was announced, which determined restrictions based on the epidemiological situation in each area. In October, when the number of new cases had stabilized—albeit at a higher level—and deaths were diminishing, the country adopted a shared management strategy called “Costa Rica trabaja y se cuida.” The aim was to allow more economic and social activities under strict protocols and relying on citizens to behave responsibly. Classes, however, were taught virtually from the beginning of the pandemic; the first in-person classes (combined with virtual classes) did not take place until 2021.

The vaccination campaign started on December 24, 2020. As in many other countries, prioritization across different population groups was defined based on demographic characteristics, health condition, and risk of contagion. As of June 2021, half of the target population had received at least the first jab, while one out of four had already completed their vaccination schedule.

Although the trend in new cases and deaths was downward at the beginning of March, 2021, the numbers of both skyrocketed after the Easter celebrations, hitting a peak in May. Mobility restrictions were again implemented and some economic activities were limited in those cantons more affected by the new wave. Face-to-face classes were again suspended, this time for a month. All these measures seemed to have a positive effect, because both new cases and death were reduced considerably. However, the number of the former remained high.


COVID-19 had a strong negative impact on Costa Rica’s economy, as it did on that of other countries in the region. Mobility restrictions to reduce the spread of COVID-19 and the collapse of tourism contributed to a rapid economic contraction. Private consumption declined by 4.8 percent and exports of goods and services dropped by nearly 10 percent. Real GDP declined by 4.1 percent in 2020 as a result, the largest decline in GDP in over four decades. The current account deficit widened and FDI inflows contracted to 2.6 percent of GDP. All sectors except the primary sector experienced pronounced employment losses. This pattern can be observed in figure 2.2 below. It replicates figure 2.1, but for the period 2019–20. The figure shows a strong decline in value added in construction, transport, and wholesale and retail. The decline in employment was especially strong in other services, which comprises many informal workers, but was also pronounced in construction, transport, wholesale and retail, financial and insurance activities and even in public administration. Both sectors with pay above and below the national average were heavily affected.
The tourism sector was especially affected by the COVID-19 pandemic. As outlined in the IMF’s Article IV Consultation, with a year-on-year decline of 98.7 percent, international tourist arrivals had virtually come to a halt in the third quarter of 2020, when the pandemic peaked. With many hotels and restaurants closed (see also figure 2.2), employment losses shortly after the start of the COVID-19 pandemic were dramatic. Due to ongoing challenges related to COVID-19, the reopening of borders and efforts to restart the sector were not effective. Tourism did not recover in 2021 and employment in the tourism industry remained well below pre-pandemic levels.

Despite the heavy shock of COVID-19, the economy returned to rapid growth in 2021. Real GDP was estimated to grow by 3.8 percent real GDP growth in 2021 and continued growth is forecast for the coming years. The recovery of the economy is driven by a combination of factors, including revived external demand, increasing vaccination rates, and accommodative monetary policy. The fiscal deficit is declining accordingly, but nonetheless the fiscal balance will remain negative and debt as a percentage of GDP will continue to increase.

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2.3. Structural factors pertinent for interpreting poverty trends

2.3.1. OECD accession and fiscal consolidation

Costa Rica formally joined the OECD on May 25, 2021, and the accession to the OECD served as an impetus for reform. A roadmap for Costa Rica’s accession to the OECD was adopted in July of 2015. As part of the implementation of this roadmap, Costa Rica engaged with OECD expert committees on a wide variety of policy domains, ratified OECD legal instruments, and adopted various policies and practices based on OECD guidance. The OECD’s 2020 economic survey for Costa Rica lists key recent reforms, including the adoption of a new law to strengthen the independence of the Central Bank of Costa Rica, changes to the free trade regime to “prevent base erosion and profit shifting,” an update of the National Statistics System Law in line with international best practices, laws making bribery a criminal offence for legal persons, a strengthened corporate governance framework for Costa Rican Petroleum Refinery, a law allowing foreign banks to establish an in-country presence either through a subsidiary or a branch, a strengthened competition framework and enhanced independence of the governmental bodies regulating competition, strengthened securities market regulations, consolidated supervision of Costa Rican financial groups, and a deposit insurance scheme. Furthermore, in the economic survey it is noted that “implementation of this wide-ranging effort to improve legal frameworks and bring them closer to best standards will be key to boost growth and well-being” and estimates that “GDP per capita could rise by 15% in 10 years.” By May 2020, Costa Rica had made strong progress in terms of the roadmap; it was invited to join the OECD and did, becoming the fourth Latin American country to do so.

In December 2018, Costa Rica implemented wide-ranging fiscal reforms. A sales tax was replaced with a value-added tax, personal income tax rates were increased, capital income taxation was harmonized, and measures were implemented to limit the wage bill. A fiscal rule to limit growth in expenditures in the public sector was enacted and an autonomous fiscal council was established to monitor the implementation of the fiscal rule. The fiscal rule imposes the following restrictions on spending growth:\(^{13}\)

- Annual growth of current spending should not exceed the average nominal GDP growth of the last four years if the debt/GDP ratio [at the end of the previous fiscal year] is less than 30 percent or if the current spending/GDP ratio is below 17 percent.
- Annual growth of current spending should not exceed 85 percent of the average growth of nominal GDP in the last four years if the debt/GDP ratio [at the end of the previous fiscal year] is between 30 percent and 45 percent.
- Annual growth of current spending should not exceed 75 percent of the average nominal GDP growth in the last four years if the debt/GDP ratio [at the end of the previous fiscal year] is between 45 percent and 60 percent.
- Annual growth in total spending must not exceed 65 percent of the average nominal GDP growth in the last four years if debt as a proportion of GDP at the end of the previous fiscal year is above 60 percent.

While the government of Costa Rica temporarily loosened fiscal policy during the COVID-19 crisis, fiscal consolidation remains a policy priority. At the onset of the COVID-19 crisis, the government of Costa Rica invoked an escape clause in the fiscal rule to generate the fiscal space needed to respond to the crisis. The escape clause allowed the central government to temporarily increase its deficit, which in turn made possible increased spending on health, labor, social assistance, and other measures aimed at supporting livelihoods [on those measures, see box 2.3 and also the discussion in Chapter 6 on social assistance]. With revenues contracting and expenditures on social programs and health care increasing, the fiscal deficit increased from -6.7 percent of GDP in 2019 to -8.5 percent in 2020. Debt as a percentage of GDP increased from 56.4 to 67.4 percent over the same period, resulting in a downgrading of Costa Rica’s public debt by the main credit rating agencies. The government of Costa Rica is now implementing measures to contain spending and return to a path of fiscal consolidation. As of 2021, the escape clause is no longer active and hence public sector spending will be adjusted in line with the fiscal rule.

The government of Costa Rica implemented a range of measures to protect livelihoods during the COVID-19 crisis. The authorities (a) approved a three-month moratorium on the payment of value-added taxes (VAT), business income taxes, and customs duties; (b) made social security contributions proportional to the time worked and permitted the deferral of their payment until the end of the year; (c) triggered a fiscal rule escape clause to allow higher spending by the Institute of Social Assistance (Instituto Mixto de Ayuda Social, IMAS), Ministry of Labor and Social Security (Ministerio de Trabajo y Seguridad Social, MTSS), and the police and firefighters corps; (d) transferred C 33 billion (roughly US$60 million) from the Ministry of Finance (Ministerio de Hacienda, MOF) to the Costa Rican Social Security Fund (Caja Costarricense de Seguro Social, CCSS) to compensate for the reduced (to 25 percent minimum) contributory base for three months; (e) launched a C 225 billion (roughly US$390 million) program to provide a subsidy of C 125,000 (roughly US$220) per month per family for three months for individuals temporarily or permanently laid off or facing reduced working hours and with a monthly income of less than C 750,000 (roughly US$1,310) prior to the COVID-19 pandemic; and (f) approved a supplemental budget that (1) included funding for the above-mentioned social programs; (2) canceled 4,953 public employment vacancies for 2020; (3) set an implicit tax on fuel sector revenue by freezing the domestic consumer fuel price for premium gasoline as of March 4, 2020; (4) transferred to the budget about C 75,000 million (roughly US$130 million) of excess capital in the National Insurance Institute (Instituto Nacional de Seguros, INS); and (5) suspended salary increases for public employees (except for police and health workers) for 2020 and postponed annual bonus payments (again, except for police and health workers).


2.3.2. Education trends

Schooling outcomes improved considerably in the decade before COVID-19, but during the COVID-19 pandemic, reductions in school attendance were most visible, especially for young children. Advances in school participation were also noted in a review of Costa Rica’s education system carried out by the OECD as part of Costa Rica’s accession to the organization.14 These advances were reflected, for instance, in school attendance rates. Figure 2.3 shows school attendance rates for children and youth ages 3–5 (green), 6–12 (light blue), 13–17 (red), and 18–23 (black). In 2010, school attendance was already effectively universal for children ages 6–12. But from the period 2010 to 2019 improvements in the other age cohorts were considerable. The proportion of children of preschool age (3–5) who attended school nearly doubled, from about 36 to a little over 60 percent. In fact, the OECD review considers expanded access to preschool education to be one of the country’s main education achievements. Nonetheless, further advances are needed to achieve universal access to preschool education as mandated by the constitution. The proportion of children

of secondary school age (13–17) who attended school increased as well, from 85 to 96 percent. Finally, as of 2019 56 percent of all youths ages 18–23 attended school, up from 49 percent in 2010. With COVID-19, a decline in school participation was visible, especially for young children, which continued to be the case in 2021.

Figure 2.3 School attendance rates increased in the decade before COVID-19

![School attendance rates by age group](image)

Source: Authors' calculations based on ENAHO (2010, 2019, 2020, 2021).

The gaps in school attendance of children from poorer households were reduced considerably, but not closed in the decade before COVID-19. In 2010, school attendance by children of primary school age (6–12) was nearly universal, even by those in poorer households. However, as shown in figure 2.4 below, this was not the case for other age groups. A sizeable gap in school attendance could be observed especially for youths; while over half of youths ages 18–23 from nonpoor households attended school, only a little over a quarter of children from extreme poor households did. Gaps in other age groups were not negligible, either, being roughly 10 percentage points for both young children (3–5 years old) and children of secondary school age (13–17). By 2019, these gaps had not been entirely closed, in part because school participation rates of children from both poor and nonpoor households had improved. However, gaps had narrowed considerably. Among young children, school attendance rates were close to 60 percent, independent of poverty level. Attendance was about 90 and 50 percent for children of secondary school age and youth from (extreme) poor households, respectively—a considerable improvement over 2010 and markedly closer to school attendance levels by children and youth from nonpoor households. For the youngest group, COVID-19 led to renewed disparities in school attendance rates by income levels. No such effect is visible for the older cohorts.
Figure 2.4 In the decade before COVID-19, some catch-up in school attendance by children from poorer households could be observed. There is a gender gap in school attendance among youths in favor of girls.

Among youth the gender gap in school attendance increased in favor of girls. As shown in figure 2.4, school participation rates at the lower ages were similar for boys and girls in 2010 and this was still true in 2019 and 2020. However, among youth there was a gap in school attendance in favor of girls in 2010 and this gap grew over the decade. As of 2019, about 6 in 10 female youth ages 18–23 attended school against just over 5 in 10 male youth. The gap narrowed a little in 2020 but remained visible. Separate analysis (not displayed) indicates that the reasons for youth being out of school differ by gender. Nearly half of all boys who do not attend school indicate that this is either because they have or want to work. Girls are much less likely to cite work as the key motivation for being out of school. Instead, the two most common reasons they cite are that they are caring for other people or cannot afford to go to school. The latter reason is mentioned by boys, too, but not nearly as often as by girls.

The grade completion rate, especially for children of secondary school age, improved as well. A decade ago, only a little over half of children of secondary school age (13–17) had completed the expected number of grades for their age (figure 2.5). Among children of primary school age (7–12) this share was close to 90 percent. By 2019, the proportion of all children who had completed the expected number of grades for their age had improved, especially for children of secondary school age (to nearly 70 percent). There is no evidence that grade progression in these age groups was affected by COVID-19.
Figure 2.5 Among secondary school-aged children the probability of having a lag in grades completed declined

Source: Authors’ calculations based on ENAHO (2010, 2019, 2020, 2021).

**Higher school attendance and grade progression rates translate into improvements in school attainment.** Over the period from 2010 to 2019, school attainment of youth ages 18–23 improved rapidly. As figure 2.6 shows, the probability that youth in this age range had not completed secondary school declined by 10 percentage points, from a little over 54 percent to less than 44 percent. Moreover, while in 2010 only about a third of youth who had not yet completed secondary school were still in school, this fraction had increased to nearly half by 2019. The share of youth who had completed secondary education and remained in school [i.e., tertiary education] increased from about 30 percent to nearly 35 percent.
The learning outcomes of children in Costa Rica are ahead of the regional average. A UNESCO study examines the performance of Costa Rican third and sixth graders in reading, mathematics, and (for those in grade six) natural sciences. The study is based on tests administered to about 160,000 students in 2019. It finds that children in Costa Rica perform above the regional average in all three subjects. However, it also notes a significant deterioration in the performance of third graders compared to 2013. Girls outperformed boys on the reading test and, vice versa, boys did better on the mathematics test. Socioeconomic characteristics explain about 40 percent of the variation in test scores: children from indigenous groups tended to score lower.

Despite improvements in school participation and relatively high expenditure on education, the performance of students on standardized skills tests lags that of other OECD countries. Costa Rica’s public expenditure on education (primary to tertiary) as a percentage of GDP is high. At 6.2 percent of GDP, it was the second-highest expenditure of all OECD countries in 2019. However, the performance of 15-year-old students on the 2018 standardized international PISA test was well below the OECD average. According to the OECD analysis, about “58% of students attained at least Level 2 proficiency in reading (OECD average: 77%),” which implies that they “can identify the main idea in a text of moderate length,” and “40% of students in Costa Rica attained Level 2 or higher in mathematics (OECD average: 76%).” [...] These students can interpret and recognize, without direct instructions, how a [simple] situation can be represent-
ed mathematically.\textsuperscript{17} According to this same analysis, there is a visible gap in performance between students from advantaged and disadvantaged backgrounds. Still, this gap is not dissimilar from that in other countries. Costa Rica has a comparatively modest gender gap in reading skills in favor of girls. Gender gaps in mathematics and science, in contrast, favor boys. The gap in reading skills of children with a migration background [after correcting for socioeconomic background] is comparable to the gap in reading skills between boys and girls. While average performance in mathematics was stable from 2010 to 2018, the average performance in reading and science deteriorated. The OECD note highlights that this deterioration took place while school enrollment rates improved, which included the entry of weaker students into the school system.

OPPORTUNITIES FOR REDUCING POVERTY AND INEQUALITY IN COSTA RICA
Chapter 3 Poverty and shared prosperity
High-level policy directions

- A renewed focus on Costa Rica’s growth model is needed to ensure that it includes and enhances the prospects of those at the bottom of the income distribution. Costa Rica’s growth model, while successful in many fronts, has not translated into a reduction in poverty and inequality. The proportion of the poor was stable in the decade before COVID-19 and inequality levels remained among the highest in the region.

- A more granular insight into the geospatial distribution of poverty could help to better understand poverty in Costa Rica and prove instrumental in more-targeted poverty eradication efforts. Despite convergence, poverty remains higher in rural areas and outside of the central region. However, detailed evidence on geospatial distribution is limited and dated. The upcoming population census can play a crucial role in generating a better and more refined picture.

- Several subgroups of the population deserve special focus in future poverty eradication policy. These include single mothers, children, Nicaraguan migrants, Afro-descendants, and indigenous populations, all of whom have markedly higher poverty rates. The economic prospects of these subgroups changed little over the decade before COVID-19 and worsened with the pandemic.

- Continued rapid progress in reducing multidimensional poverty will require redoubled efforts. Costa Rica has made substantial progress in reducing multidimensional poverty in the period since 2010. Much of this progress was driven by enhanced internet access and school participation. Continued reductions, however, will require improvements in other domains that have proved ‘sticky’ and hard to move.

This chapter discusses poverty and inequality trends in the decade before COVID-19 and describes the implications of the pandemic. Despite positive economic growth, real incomes of those in the bottom of the income distribution were stable in the decade before the pandemic. Accordingly, no nationwide reductions in income poverty could be observed—if anything, inequality increased during this period. The economic contraction during COVID-19 led to a strong reduction in the incomes of people in the bottom 40 percent of the income distribution. Poverty and to a lesser extent inequality increased as a result. As the economy rebounded in 2021, poverty rates declined but did not return to prepandemic levels.

The chapter notes that several subgroups of the population are more likely to live in monetary poverty. These are women of childbearing and child-rearing age, children, Nicaraguan migrants, those with less than secondary education, and those living in a household with an unemployed head. The situation of these groups did not improve markedly in the decade before COVID-19 and poverty rates in each of these groups increased during the pandemic. Poverty rates used to be higher in rural areas, but have been converging to those in urban areas.

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18 The analysis presented in this chapter is based primarily on Costa Rica’s national household survey, the ENAHO (see box 3.1). While the previous chapter took a longer-term (30-year) perspective on the growth of Costa Rica’s economy, this section focuses on the period since 2010. The decision to do so is partly driven by the available microdata needed to examine poverty and inequality trends. There was a change in the methodology of household surveys administered by INEC as a result of which findings before and after 2010 are not directly comparable.
The chapter also notes that, in contrast to monetary poverty, multidimensional poverty has declined quickly since 2010. The share of the population considered multidimensionally poor declined from 31 percent in 2010 to 20 percent in 2019. Much of this decline was driven by improvements in school participation and access to the internet. Labor market indicators show limited progress over this period, explaining why the rates of monetary poverty remained stable while those of multidimensional poverty dropped. The decline in multidimensional poverty was especially pronounced in rural areas. The pandemic did not lead to a deterioration in multidimensional poverty, although some aspects of multidimensional poverty (notably related to labor market outcomes) were negatively affected.

The remainder of the report unpacks some of the poverty trends presented in this chapter. Chapter 4 examines income sources of households in the bottom of the income distribution. The chapter shows that the contribution of labor income to household income has been declining for these households. Much of this decline has been offset by an increase in social assistance receipts. Chapter 4 explains that the decline in labor income in households in the bottom of the income distribution is due to a deterioration in the labor market outcomes of less-educated workers. Chapter 6 shows that social pensions are an especially important source of social assistance support for households in the bottom of the income distribution.

### 3.1. National poverty and inequality trends

Incomes of the bottom 40 percent of the population were stable in the decade prior to COVID-19. Growth was mostly pro rich, as incomes in the top 60 percent grew and the income distribution became somewhat less equal. As shown in panel a of figure 3.1, incomes of households in the bottom 40 percent in real terms (i.e., corrected for inflation) were unchanged over the decade prior to COVID-19. The incomes of households in the top 60 percent, in contrast, increased by over 5 percent during this period. Concomitantly, indicators of inequality point to a deterioration in equality. The Gini coefficient showed a modest upward trend from 2010 to 2019 (figure 3.1, panel b). The same holds for other frequently used equality indicators. The ratio of the income of the top decile to the income of the bottom decile (P90/P10), for instance, increased from 10.9 to 11.7 (not shown in figure 3.1).

COVID-19 had a negative impact across the income distribution, but affected those in the bottom of the distribution more heavily. The incomes of households in the bottom 40 percent were dramatically affected by the COVID-19 crisis and declined by about 15 percent (figure 3.1). Although the incomes of households in the top 60 percent were also heavily affected, at about 13 percent the decline was slightly less pronounced. In 2021, incomes showed a strong recovery, but the recovery was slightly stronger for the top 60 percent than for the bottom 40 percent. Consequently,
inequality indicators continued to worsen through the height of the pandemic and the recovery in 2021. This can be seen, for instance, in a further upward trend in the Gini coefficient and an increase in the P90/P10 from 11.7 to 12.1.

The 2021 economic recovery did not reverse the trend of slowly increasing inequality. As the economy rebounded, incomes increased quickly across the entire income distribution. However, the increase was more pronounced for the top 60 than for the bottom 40 percent. As a result, inequality as measured by the Gini index continued its upward trend.

Figure 3.1 Measures of income equality and shared prosperity deteriorated.

Source: Authors’ calculations based on ENAHO (2010–21).
Note: The dashed lines in panel a present the average growth incidence for households in the bottom 40 and top 60 percent of the income distribution, respectively.

Monetary poverty did not decline in the decade prior to COVID-19. In accordance with limited movement of incomes in the lower part of the income distribution over the period from 2010 to 2019, poverty rates in Costa Rica remained broadly stable. Figure 3.2 shows the extreme poverty rate (panel a) and the overall poverty rate (panel b), both measured according to Costa Rica’s national definitions. The extreme poverty rate hovered between about 6 and 7.5 percent, while the overall poverty rate fluctuated between 22.5 and 25 percent. Slight movements over time are mostly not statistically significant nor do they clearly reflect structural trends or macroeconomic events in the country.

Monetary poverty increased rapidly with the onset of COVID-19 and did not fully revert to prepandemic levels in 2021. In accordance with the decline in income discussed above, a pronounced increase in monetary poverty can be observed in 2020. Figure 3.2 shows that the overall poverty rate increased from roughly 24 to 30 percent. The extreme poverty rate was less heavily affected during COVID-19, increasing from about 7 to 8.5 percent. As discussed in more detail later in this report, public transfers helped to supplement the incomes of the very poorest during the pandemic,
which explains the less dramatic increase in extreme poverty. In 2021, extreme poverty reverted to pre-pandemic levels, but overall poverty remained elevated at a little over 26 percent.

Figure 3.2 Poverty rates were stable for about a decade then increased quickly with COVID-19

Source: Authors’ calculations based on ENAHO (2010–21).
Note: Both extreme poverty and poverty are per Costa Rica’s national definitions.

Box 3.1 The household survey in Costa Rica

Between 1987 and 2009, the Multipurpose Household Survey (Encuesta de Hogares de Propósitos Múltiples, EHPM) was the main source of data regarding sociodemographic characteristics, access to services (such as utilities, health, and education), migration, incomes, poverty, living conditions, and so forth. In 2010, the EHPM was replaced by the National Household Survey (ENAHO). The ENAHO is administered annually in July. INEC (2010) discusses the main changes between the EHPM and the ENAHO:

- The sampling frame was updated based on the data from the National Population and Housing Census carried out in 2000.
- Weights were computed based on the projections calculated by the Central American Population Center in 2008.
- The questionnaire was expanded and improved, in part by including the introduction of more and better-constructed questions on incomes.
- Some definitions of labor conditions were modified to improve the identification of the working population and the characteristics of their jobs.
• The methodologies to impute incomes and to adjust for underreporting of incomes were revised. While the method of conditional means for aggregated data is used in the first case, correction coefficients, which are obtained comparing the results from the ENAHO and the National Account, are applied by source of income in the second.

Although the methodology to estimate monetary poverty remained unaltered, its parameters were updated. In fact, the energy requirements, the consumption patterns, and the Orshansky’s coefficient (i.e., the ratio between the total and food expenditure for reference households) were updated using data from the National Incomes and Expenditures Survey (Encuesta Nacional de Ingresos y Gastos de los Hogares, ENIGH) administered in 2004.

Due to the changes mentioned above, the estimates obtained since 2010 cannot be compared with the previous ones. Additionally, in 2014 the sampling frame and the projections of the population by area (urban/rural) and planification regions were updated based on the results of the National Population and Housing Census 2010. Observations from the new sampling frame were introduced progressively: 30 percent of the total observations came from this sampling frame in 2014, 70 percent in 2015, and 100 percent in 2016. Since the data from the census showed a higher share of the population in urban areas—73 percent versus 60 percent—the weights for previous rounds (i.e., from 2010 to 2013) were reestimated. The results included in this report reflect this correction.

In the face of COVID-19, some methodological changes were introduced in the ENAHO in 2020. The administration of the ENAHO combined phone and face-to-face interviews (54.8 percent and 45.2 percent of the sample, respectively). As a previous contact was needed for phone interviews, the sample was the same as in 2019 (i.e., the usual rotation of 25 percent of the sample was not implemented). Finally, weights were calibrated using logistic regressions to avoid biases and ensure that the results for 2020 are still comparable with those of 2019.

The reader is referred to Annex 2 for a discussion of how trends in labor market outcomes in the ENAHO compare to those in the labor force survey.

Sources:
3.2. Rural/urban and regional disaggregation

In the decade prior to COVID-19, income growth rates of the bottom 40 percent differed markedly in urban and rural areas. In urban areas, real per capita household incomes of the bottom 40 percent declined by almost 5 percent (figure 3.3, panel a), while the incomes of the top 60 percent increased by over 6 percent. In contrast, incomes for both groups grew in rural areas. And, at about 12 percent, the income growth was markedly stronger for the bottom 40 percent than for the top 60 percent. Accordingly, inequality as measured by the Gini coefficient increased in urban areas and surpassed that of rural areas over the course of the decade (figure 3.3, panel b).

COVID-19 further exacerbated differences in the incomes of the bottom 40 and top 60 percent in urban areas, but not in rural areas. In urban areas, real per capita household income of the bottom 40 percent declined by about a fifth during the pandemic. While the top 60 percent also experienced a strong decline in income, this decline was not as pronounced as for the bottom 40 percent, contributing to a further increase in inequality. At 7.4 and 6.5 percent, respectively, income declines for the bottom 40 percent and the top 60 percent were more comparable in rural areas. Accordingly, the COVID-19 pandemic did not bring about a substantial increase in inequality in rural areas. Furthermore, in 2021 incomes showed a strong recovery in urban areas: in both the bottom 40 percent and the top 60 percent of the income distribution, incomes grew by about 15 percent. In rural areas, however, increases in incomes were markedly less pronounced.
In 2010 poverty rates were higher in rural areas than in urban areas, but the gap had narrowed by 2019. Over the decade, poverty rates showed a modest increase in urban areas; urban poverty was 21.5 percent in 2010 and, with some fluctuations, had increased to 22.7 in 2019 (figure 3.4). In contrast, poverty in rural areas declined from 31 percent in 2010 to 27 percent in 2019. The share of the poor living in urban areas went up from 65 percent in 2010 to 69 percent in 2019. As the share of the population living in urban areas was effectively stable over the period examined (72.8 percent in 2010 and 72.5 percent in 2020), the increase in the share of the poor living in urban areas was driven by the rise in urban poverty and not a composition effect.

The poverty rate increased especially quickly in urban areas during 2020 and then declined quickly in 2021. By July of 2020, when the ENAHO poverty data were collected, the urban poverty rate had gone up to the extent that urban and rural poverty rates were roughly identical. In urban areas, the poverty rate jumped from 22.7 to 30 percent. In rural areas the increase was markedly less pronounced, going from 27 to 30 percent. The total share of the poor living in urban areas increased from 69 to 73 percent as a result. While an increase in incomes in urban areas did translate into a decline in poverty rates during 2021, at about 25 percent poverty remained above the pre-pandemic level. In rural areas, poverty remained elevated well above the pre-pandemic level.
Figure 3.4 Contrasting trends in urban and rural poverty

Panel a. Poverty rate, 2010-21 (% of population)

<table>
<thead>
<tr>
<th>Year</th>
<th>Urban</th>
<th>Rural</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>21.5</td>
<td>22.1</td>
<td>24.2</td>
</tr>
<tr>
<td>2011</td>
<td>21.5</td>
<td>23.5</td>
<td>24.6</td>
</tr>
<tr>
<td>2012</td>
<td>24.7</td>
<td>23.5</td>
<td>24.6</td>
</tr>
<tr>
<td>2013</td>
<td>27.4</td>
<td>22.7</td>
<td>26.2</td>
</tr>
<tr>
<td>2014</td>
<td>29.8</td>
<td>26.2</td>
<td>29.6</td>
</tr>
<tr>
<td>2015</td>
<td>29.0</td>
<td>26.2</td>
<td>29.6</td>
</tr>
<tr>
<td>2016</td>
<td>30.0</td>
<td>26.2</td>
<td>29.6</td>
</tr>
<tr>
<td>2017</td>
<td>29.1</td>
<td>26.2</td>
<td>29.6</td>
</tr>
<tr>
<td>2018</td>
<td>28.7</td>
<td>26.2</td>
<td>29.6</td>
</tr>
<tr>
<td>2019</td>
<td>28.3</td>
<td>26.2</td>
<td>29.6</td>
</tr>
<tr>
<td>2020</td>
<td>27.8</td>
<td>26.2</td>
<td>29.6</td>
</tr>
<tr>
<td>2021</td>
<td>27.3</td>
<td>26.2</td>
<td>29.6</td>
</tr>
</tbody>
</table>

Panel b. Share of the population in urban areas, 2010-21 (% of extremely poor and poor)

<table>
<thead>
<tr>
<th>Year</th>
<th>Ext. Pov.</th>
<th>Pov.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>53.1</td>
<td>56.4</td>
</tr>
<tr>
<td>2011</td>
<td>56.4</td>
<td>65.8</td>
</tr>
<tr>
<td>2012</td>
<td>65.8</td>
<td>68.9</td>
</tr>
<tr>
<td>2013</td>
<td>68.9</td>
<td>72.6</td>
</tr>
<tr>
<td>2014</td>
<td>66.9</td>
<td>72.6</td>
</tr>
<tr>
<td>2015</td>
<td>67.5</td>
<td>70.5</td>
</tr>
<tr>
<td>2016</td>
<td>65.8</td>
<td>70.5</td>
</tr>
<tr>
<td>2017</td>
<td>65.8</td>
<td>70.5</td>
</tr>
<tr>
<td>2018</td>
<td>72.6</td>
<td>88.9</td>
</tr>
<tr>
<td>2019</td>
<td>70.5</td>
<td>88.9</td>
</tr>
<tr>
<td>2020</td>
<td>70.5</td>
<td>88.9</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations based on ENAHO (2010–21).

Box 3.2 Comparisons of poverty and inequality rates in Latin America

International comparisons of poverty and inequality rates require harmonized measurement and definitions across countries. This box presents regional comparisons based on the Socio-Economic Database for Latin America and the Caribbean (SEDLAC). SEDLAC was developed by the Center of Distributive, Labor and Social Studies at Universidad Nacional de La Plata (Centro de Estudios Distributivos, Laborales y Sociales, CEDLAS) and the Poverty and Equity Global Practice of the World Bank to increase access to comparable socioeconomic statistics. SEDLAC is based on the microdata of household surveys administered by the national statistics offices in Latin America and the Caribbean. In contrast with Costa Rica’s official estimates, the per capita household income in SEDLAC includes the value of housing, is spatially adjusted at the urban/rural level, and is not corrected for underreporting. The poverty threshold used is US$5.5 per capita per day (2011 PPP), well below Costa Rica’s national poverty line but above its extreme poverty line. Converted to 2011 PPP US$ per capita per day, in July 2020 Costa Rica’s national poverty lines for urban and rural areas were 8.6 and 6.6, respectively, while the national extreme poverty lines were 3.8 and 3.2 for urban and rural areas, respectively.

19 At the time of writing this Poverty and Inclusion Assessment, the World Bank was revising its international poverty lines. The updated poverty lines are not reflected in this report. A follow-up note with analysis based on the new poverty lines will be published by the World Bank.
Over the decade prior to COVID-19, poverty rates declined in many countries in the region, but Costa Rica was one of the few countries registering limited poverty reduction. In 2010, Costa Rica’s poverty rate as measured based on SEDLAC data and in line with the international definition (US$5.5 2011 PPP) was 13.2 percent—well below the regional average. Only Chile and Uruguay had lower poverty rates (figure B.3.2.1, panel a). Costa Rica was one of the countries in the region, together with Brazil and Argentina, in which reductions in poverty rates were limited in the subsequent decade. By 2019, its poverty rate was 10.6 percent. All other countries in the regional comparison achieved substantive poverty reductions. The average reduction in the region was over 8 percentage points. Even Chile and Uruguay, which had comparatively low levels of poverty in 2010, saw striking reductions in poverty over this decade. Nonetheless, Costa Rica’s poverty rate was still the third lowest in 2019.

Figure B.3.2.1 Although poverty did not decline between 2010 and 2019, Costa Rica remains one of the countries with the lowest levels of poverty and highest levels of inequality in the region.

By 2019, Costa Rica’s inequality rate was among the four highest in the region. In 2010, Costa Rica’s Gini coefficient was in the middle of the regional distribution, as Honduras, Colombia, Brazil, Panama, Paraguay, and Ecuador all had higher rates of inequality. By 2019, most of the countries in the region had registered notable reductions in inequality, including some of the countries with the highest levels of inequality in 2010, such as Honduras and Colombia. However, inequality did not decline in Costa Rica over this period and hence by 2019 the country’s inequality rate was among the four highest in the region.
In much of Latin America the pandemic rapidly undid a decades-long rise in the middle class. A recent World Bank report describes how, after decades of growth, Latin America and the Caribbean had become a predominantly middle-class region by the start of the pandemic. However, growth had stagnated in much of the region in the years before the pandemic (as it did for Costa Rica). Moreover, high levels of informality and inequality made the region especially vulnerable to the effects of the pandemic. The report notes that the economic crisis accompanying the COVID-19 pandemic rapidly undid much of the gain, but at the same time observes that the implications of the pandemic and the ensuing economic crisis varied quite widely, depending on government responses.

In Costa Rica, the pandemic is estimated to have led to a decline in the middle class of about 2.5 to 3 percent. To interpret these findings, it is important to note that there is no universally accepted definition of the middle class. The World Bank report cited here categorizes individuals with a daily income above the international US$5.5 (2011 PPP) poverty line as vulnerable if the risk that their daily income could fall below the poverty line over a five-year period exceeds 10 percent. Longitudinal analysis spanning multiple countries indicates that these are the individuals with a daily income below US$13 (2011 PPP). The report categorizes individuals with a daily income above this US$13 threshold and below US$70 (2011 PPP) as middle class. Based on this definition, the report categorized a little over half of all Costa Ricans (50.4 percent) as middle class in 2019. The report estimates that during the pandemic the middle class had declined to 47.4–48.0 percent of the population, thus adding to the share of the poor and vulnerable.

Source:

There are pronounced differences in the levels and trends of poverty by region. The Central region, which comprises the capital San José, is the largest region in terms of population; in 2021, it was home to nearly 62 percent of all Costa Ricans. As shown in figure 3.5, poverty rates are lower in this region than in other regions and from 2010 to 2019 were comparatively stable at a little under 20 percent. The Central region did see both a pronounced increase in poverty rates with COVID-19 and a decline in poverty rates in 2021. Being the most populous region in the country, it hosted nearly half (49 percent) of Costa Rica’s poor as of 2021. The two regions with the highest poverty rates in 2010, Chorotega and Brunca, were the only regions to see poverty decline in the decade before COVID-19. The decline was most pronounced in the former, as poverty went from 36.2 percent in 2010 to 23.2 percent in 2019. Chorotega also experienced the largest increase in poverty in 2020, raising the rate to 36.6 percent. Pacífico Central also experienced a strong increase in poverty with COVID-19: at 41.1 percent, it had the highest poverty rate in the country by 2020. However, as in the Central region poverty rates in these three regions declined in 2021.
Figure 3.5 Poverty rates are lowest in the central region of Costa Rica. The central region hosts the largest number of poor in absolute terms.

Due to data limitations, further geospatial disaggregation of poverty statistics is challenging. The primary data source for this report, the ENAHO, does not allow for disaggregation of statistics by province, the primary administrative division of Costa Rica. It only allows for disaggregation by the six geographical regions discussed in the chart above: Central, Chorotega, Pacífico Central, Brunca, Huetar Caribe, and Huetar Norte. Updated census data [the previous data are now more than a decade old, but a new census is currently underway] will enable the creation of a new poverty map. This will be critical for gaining a more granular understanding of where groups vulnerable to poverty are located and hence for the geographical targeting of antipoverty initiatives.
3.3. Poverty Profiles

Income poverty rates are higher for women, especially women of childbearing and child-rearing age. Over the past decade, poverty rates for women were consistently about two percentage points higher than those for men (figure 3.6, panel a). Panel b of figure 3.6 shows poverty rates for women and men by age in 2021: there is a clear gap in poverty rates of women and men between the ages of 20 and 44. Poverty rates for women exceed those of men by up to 10 percentage points during this period. A plausible explanation is that childcare obligations are inhibiting women’s income-generating opportunities during these years.

Figure 3.6 A gap in poverty rates among women and men is visible during childbearing and child-rearing ages

Source: Authors’ calculations based on ENAHO (2010–21).

 According to the data, poverty rates among children markedly exceed those among adults. Figure 3.7 shows the evolution of poverty rates for five age groups: 0–14, 15–24, 25–40, 41–64, and 65+. Children ages 0 to 14 are a clear outlier. Poverty rates for this age group hovered around 35 percentage points for much of the decade prior to COVID-19 and consistently exceeded those of other age groups by about 10 to 15 percent. Consequently, children make up a disproportionate share of the poor. In 2021, children up to the age of 14 made up only a fifth of the population, but nearly 29 percent of the poor (and almost a third of the extreme poor, not displayed).

Poverty rates of households with children are nearly double those of households without children, a disparity that is especially pronounced for single-female-headed households. At the household level, poverty rates depend not only on the presence of children but also on the number and sex of adult household members. As shown in figure 3.8, poverty rates in households with children are nearly twice as high as poverty rates in households without children (32 vs. 17 percent). Higher poverty rates in households with children are commonly observed in other countries as well.21 Among households with children, poverty rates are particularly high in households with only one, female adult.

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Figure 3.8 Poverty rates are markedly higher in households with children

<table>
<thead>
<tr>
<th>Households with children</th>
<th>Without</th>
<th>With</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td>16.6</td>
<td>31.7</td>
</tr>
<tr>
<td>Two adults</td>
<td>20.5</td>
<td>7.9</td>
</tr>
<tr>
<td>One adult, female</td>
<td>29.3</td>
<td>51.3</td>
</tr>
<tr>
<td>One adult, male</td>
<td>20.7</td>
<td>8.3</td>
</tr>
<tr>
<td>Multiple adults</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations based on ENAHO (2021).

Note: Children are defined as those 17 years old or younger, while adults are defined as those between 18 and 64 years old.

**Differences in labor income largely explain the higher poverty rates in (single-female-headed) households with children.** Figure 3.9 below shows the distribution of total per capita household income (expressed in thousands of real 2010 colones) across the following sources: labor, pensions, public transfers, private transfers, capital, and other. Labor is the primary income source for both households with and without children, but labor income for the latter is 1.5 times that of the former. Households without children also have higher income from pensions and capital, a reflection of the fact that they are more likely to be made up of retired elderly persons. Among households with children, labor income differs markedly by the number and sex of adult members. In households with a male and a female adult, labor income is 2 times higher than in households with only a female adult. While households with a single female receive more income from private transfers (possibly reflecting alimony, but this cannot be ascertained based on the ENAHO), this does not nearly make up for the difference. Households with one male adult have markedly higher total income levels, but they make up only a tiny 2.7 percent of all households with children.
Figure 3.9 Households with children, especially those headed by a single woman, have lower per capita labor income

Per capita household income by type of household and income source, 2021
(in thousands colones)

Table: Per capita household income by type of household and income source, 2021

<table>
<thead>
<tr>
<th>Household Type</th>
<th>Labor</th>
<th>Pension</th>
<th>Transfers</th>
<th>Private transfers</th>
<th>Capital</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without children</td>
<td>245</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>245</td>
</tr>
<tr>
<td>With one adult female</td>
<td>162</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>162</td>
</tr>
<tr>
<td>With one adult male</td>
<td>101</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>101</td>
</tr>
<tr>
<td>With two adults of opposite sex</td>
<td>144</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>144</td>
</tr>
<tr>
<td>With multiple adult households</td>
<td>203</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>203</td>
</tr>
<tr>
<td>Total households with children</td>
<td>155</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>155</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations based on ENAHO (2021).

The income of households with children changed little in the period 2010–21 [results not displayed]. Total per capita income of households with children declined from 193 to 189 thousand real 2010 colones during the period under study. This decline was driven by a reduction in labor income, an issue to which the report will return below. A similar pattern can be observed for households made up of children and a single female adult, whose overall income declined from 154 to 142 thousand real 2010 colones. It is important to consider these findings within broader demographic trends. Costa Rica’s population pyramid is changing and the share of households with children declined substantially in the period under study, from 57 percent in 2010 to 42 percent in 2021. At the same time, among households with children, the share headed by a single woman increased from 10 to 17 percent. While a declining number of households with children may reduce poverty rates, an increasing share of households headed by a single woman will be associated with higher poverty rates.
Box 3.3 Poverty rates of Nicaraguan migrants exceed those of Costa Rica nationals

Nicaraguan migration to Costa Rica took off in the 1980s. According to Blyde (2020), different waves of this migration can be identified. The first wave took place between the mid-1980s and 1990, starting with an inflow of migrants seeking to escape the armed conflict between the Sandinista government and the Contra forces that began in 1984. This migration period lasted until the end of Nicaragua’s civil war in 1990 (Otterstrom 2008). Two waves can be identified during the 1990s; in contrast with the first wave, these were connected with the economic consequences of structural adjustment policies in the 1990s and flooding due to Hurricane Mitch in 1998. As a result, the share of Nicaraguans in Costa Rica’s population went from around 2 percent in the early 1980s up to almost 6 percent in 2000. Although Nicaraguan migrants were still attracted by the higher political stability and living standards in Costa Rica, their share in the total population barely grew in the following decades. Based on the ENAHO, Nicaraguans represented 6.6 percent of the population in 2020 and 80 percent of migrants in Costa Rica. Most Nicaraguan (78.2 percent) migrants at the time of the survey were between 25 and 64 years old and the proportion who are female (55.8 percent) exceeds the proportion who are male. They are for the most part low skilled; 56.8 percent had completed primary school and 23.7 percent had not completed secondary school.

Migration from Nicaragua has had mixed effects on labor market outcomes of Costa Rica nationals. Blyde (2020) shows that these effects vary by the skill level, gender, and family responsibilities of Costa Rican workers. For instance, low-skilled Costa Rican workers can be negatively affected by Nicaraguan workers when competing for similar jobs. However, low-skilled Nicaraguan domestic workers support the employment and earnings of high-skilled Costa Rican women. A 1 percentage point increase in the share of low-skilled migrants is estimated to raise the employment and hourly earnings of high-skilled Costa Rican women by 4.5 percentage points and 7.2 percent, respectively.

Poverty rates of Nicaraguan migrants exceed those of Costa Rican nationals. A pronounced difference in poverty rates by migrant status can be observed. Panel a of figure B.3.3.1 differentiates poverty rates by the country of birth of the household head. Over the decade prior to COVID-19, poverty rates among households with a head born in Nicaragua were more than 10 percentage points higher than those among households with a head born in Costa Rica. With the onset of COVID-19 this gap widened dramatically, highlighting the vulnerability of the Nicaraguan migrant population. In July of 2021, nearly 40 percent of all individuals living in a household with a Nicaraguan head could be considered poor, compared with less than 25 percent of households with a head born in Costa Rica. Households with a head born in Nicaragua made up 15 percent of the poor population, but only 11 percent of the entire population (figure B.3.3.1, panel b).

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22 As for most of this report, the evidence in this box is based primarily on the ENAHO survey. Gutierrez et al (2020) evaluate whether household surveys in 18 Latin American countries, including the ENAHO, can be reliably used for inferences about migrant populations. They conclude that the results from the ENAHO are reliable even for this subgroup of the population. However, they caution against further exploration of heterogeneity of results within migrant populations. A. Gutiérrez, Á. Fuentes, X. Mancero, F. López, and F. Molina. (2020). “Criterios de calidad en la estimación de indicadores a partir de encuestas de hogares: una aplicación a la migración internacional.” Serie Estudios Estadísticos, N° 101. Santiago: Comisión Económica para América Latina y el Caribe (CEPAL), http://hdl.handle.net/11362/45681.

23 The results are qualitatively similar if they are differentiated by nationality at the individual level instead of by nationality of the household head.
Non-Nicaraguan migrants are a small minority of the population and tend to be relatively highly educated. More than 60 percent have at least completed secondary school and around a quarter have a university degree. Accordingly, poverty rates in households with other migrant heads tend to lie below those of Costa Rica nationals. However, poverty rates among this group also showed a marked increase during the pandemic, highlighting a significant level of vulnerability.

Sources:

There is a clear dichotomy in poverty rates by education levels. Poverty rates are lower when the household head has completed a higher level of education (figure 3.10, panel a). For most of the decade prior to COVID-19, they were equal to about 10 percent when the household head had completed secondary education and about 2 percent when the head had completed tertiary education. Poverty rates for households with a head who had completed up to primary
education, in contrast, were markedly higher at around 30 percent. With an 8 percentage point increase, the effect of the COVID-19 crisis on poverty was especially pronounced for this last group. In 2021, about two-thirds of the population of Costa Rica lived in a household with a head who had completed up to primary education. However, over 86 percent of the poor lived in such a household (figure 3.10, panel b).

**Figure 3.10 Poverty rates differ strongly by the level of education of the household head**

Panel a. Poverty rate, by level of education of the household head, 2010-21 (% of population)

Panel b. Population by level of education of the household head, 2021 [%]

Poverty rates correlate strongly with labor market participation. Not surprisingly, poverty rates are higher for the unemployed. In the decade prior to COVID-19, about 60 to 70 percent of members of a household with an unemployed head lived in poverty (figure 3.11, panel a). In 2021, only about 3 percent of the total Costa Rican population, but more than 8 percent of the poor population, lived in a household with an unemployed head (figure 3.11, panel b). That being said, it is not uncommon for employed Costa Ricans to be poor. During the decade prior to COVID-19, about a fifth of those who lived in a household with an employed head could be categorized as poor. Furthermore, in 2021 about 63 percent of the poor population lived in a household with an employed head. Poverty rates in households with a head out of the labor force exceed those of households with a working head, but are still markedly lower than those of households with an unemployed head. This third group is more likely than households with an unemployed head to have alternative income sources (notably pensions and capital). Moreover, the households in this third group tend to have fewer members.
The 2011 population census indicated that Afro-descendants are in a disadvantaged position. The ENAHO data on which this poverty assessment relies do not enable the generation of statistics separately for Afro-descendants. However, a World Bank study for Latin America and the Caribbean (Freire et al. 2018) sheds light on the disadvantaged position of Afro-descendants in the region. The report also presents findings for Costa Rica itself, based on the 2011 census. At the time, Afro-descendants made up an estimated 8 percent of Costa Rica’s population. As in other countries in the region, Afro-descendants in Costa Rica were often concentrated in specific regions, typically with lower levels of development. In cities they were about twice as likely to live in slums as non-Afro-descendants. Afro-descendants had lower education attainment levels as measured by the share of people completing tertiary education and had lower access to computers and phones (the gaps were 11 and 13 percentage points, respectively). Because Afro-descendants in Costa Rica predominantly lived in urban areas, they mostly had access to electricity, sewerage, and piped water and their access lagged that of non-Afro-descendants by a few percentage points at most: 93 vs. 96 percent for access to sewerage, 97 vs. 98 percent for piped water, and 99 vs. 99 percent for electricity.
The 2011 census also showed pronounced disadvantages for Costa Rica’s indigenous population. Another World Bank report (2015) describes the situation of indigenous groups in the region, again relying on the 2011 census to provide information for Costa Rica. At the time of the census, indigenous people made up a bit over 2 percent of Costa Rica’s entire population. The indigenous population consisted of eight different groups speaking seven different languages. In contrast with Afro-descendants, most of the indigenous population (59 percent) lived in rural areas. The indigenous population had less access to sewerage (70 vs. 96 percent), piped water (75 vs. 97 percent), and electricity (81 vs. 99 percent) than the nonindigenous population in urban areas. Indigenous people were also less likely than the nonindigenous population in urban areas to own a home (53 vs. 65 percent), more likely to engage in low-skilled employment (74 vs. 57 percent), and less likely to own a cell phone (64 vs. 91 percent) or a computer (17 vs. 36 percent). Even in urban areas, indigenous people were notably worse off than non-indigenous people. For instance, indigenous people were more likely to have a dirt floor (6 vs. 1 percent), less likely to have sewerage (86 vs. 96 percent), and more likely to live in slums (16 vs. 5 percent). The analysis presented in the two reports does suggest that the situation of both Afro-descendants and indigenous people had been improving. New census data will be key to providing evidence on the current situation of both groups.

Sources:


After controlling for observable characteristics, the education level of the household head, his or her labor status, and the presence of children correlate most strongly with the probability that a household is poor. This can be seen in figure 3.12, which shows the results of a probit regression.24 A clear gradient between education level of the household head and poverty can be observed. For example, compared to households with a head who has not completed any education, the probability that a household is classified as poor is 34 percentage points lower if the household head has completed superior education. The likelihood of being poor is higher if the household head is not employed (44 percentage points higher if unemployed and 25 percentage points higher if inactive), and also if his or her job is informal (almost 20 percentage points higher). Finally, having children increases the probability of being poor by 10 percentage points. Age, gender, marital status, and nationality of the household head are not significantly correlated with the probability that a household is poor.

24 The probit regression is run at the household level. The explained variable is the probability of being poor, while the explanatory variables include household head’s characteristics (such as age, age squared, gender, level of education, marital status, labor status, and nationality), and household’s characteristics (e.g., has children, has elderly, in urban or rural area, and planification region where it is located).
3.4. Multidimensional Poverty

In contrast with monetary poverty, multidimensional poverty decreased in the decade before COVID-19. Panel a of figure 3.13 shows the trend in the multidimensional poverty index. Panel b shows the trend in the two components of the multidimensional poverty index: the prevalence (or headcount) of multidimensional poverty and the intensity of deprivation, i.e., the average number of deprivations experienced by people in multidimensional poverty. The prevalence of multidimensional poverty shows an especially rapid decline. Nationwide, the percentage of the population considered multidimensionally poor declined from 31 in 2010 to 20 percent in 2019. To add more details to the picture, the intensity index declined from about 29 to 27, which implies that at the end of the decade multidimensionally poor households experienced about five to six deprivations on average (slightly above the multidimensional poverty threshold of four; see box 3.5).
Figure 3.13 In contrast with monetary poverty, multidimensional poverty declined quickly in the decade prior to COVID-19

Panel a. Multidimensional poverty index, 2010-21
[\% of population]

Panel b. Headcount ratio and intensity index, 2010-21

Source: Authors’ calculations based on ENAHO (2010–21).

Box 3.5 Multidimensional poverty measurement in Costa Rica

Costa Rica incorporated a new methodology for multidimensional poverty measurement in 2015, having implemented the unmet basic needs (UBN) approach in 1984, 2001, and 2011. The UBN index is estimated only with data from the population censuses, whereas the new methodology was designed to be applied to the Household Survey microdata sets with the aim of obtaining results with a higher frequency.

The Multidimensional Poverty Index (MPI) for Costa Rica is based on the methodology of Alkire and Foster (2008). Following the sectoral approach to social policy, five dimensions—education, health, housing and internet access, employment, and social assistance—were selected to cover key fields of public policy making. Each dimension receives the same weight (i.e., one-fifth) in the overall index.

In turn, each dimension comprises four indicators, except in the case of employment, which only includes three. These indicators were selected following the so-called principles of accuracy and parsimony: the aim was to achieve the measurement objectives with as few indicators as possible. An additional condition for the selection of an indicator was that it covered all the stages of the life cycle. The weight of each dimension is equally distributed among the indicators.

A threshold of experiencing 20 percent of the deprivations was established as the basis on which to categorize a household as multidimensionally poor. In other words, this is equal to suffering at least one deprivation in four dimensions or all deprivations in the same dimension. All the members of a multidimensionally poor household are considered multidimensionally poor.
The Multidimensional Poverty Index (MPI) is defined as the product of the Incidence Index (H) by the Intensity Index (I):

$$\text{MPI} = \frac{H}{\text{multidimensionally poor population}} \times \frac{I}{\Sigma \text{weighted deprivations of all multidimensionally poor}}$$

**Sources:**

All five dimensions captured in Costa Rica’s multidimensional poverty index saw improvement in the decade prior to COVID-19. Improvements in access to education and dwelling characteristics contributed the most to the reduction in multidimensional poverty. Together, they drove more than half of the reduction in the multidimensional poverty index [result not displayed]. In accordance with the evidence on schooling outcomes presented in Chapter 2, school participation of children and school attainment of youth showed substantial improvements (figure 3.13). The share of people living in households with children ages 5–17 who were not in school, for instance, declined from almost 10 to around 2.5 percent. The share of people living in households with youth ages 18–24 who did not complete high school declined from well over 20 to a little over 10 percent. Access to the internet increased rapidly: about 30 percent of the population gained access over the period from 2010 to 2019.

However, some key multidimensional poverty indicators showed little progress over this same period. The share of the population with low human capital remained well above 25 percent, the share of the population without health insurance increased, and labor market indicators showed little improvement. For example, the fraction of the population out of the labor market did not decline, long-term unemployment increased slightly, and informality rates did not go down [more discussion of these and related indicators is provided in Chapter 5]. The lack of progress in relation to these indicators helps to explain limited progress toward reducing monetary poverty at the national level, an issue to which the report will return in the following sections.

With COVID-19, the decline in multidimensional poverty came to a halt. Both the headcount ratio and the intensity index remained relatively stable in 2020 and 2021 and many of the indicators shown in figure 3.14 did not register substantial movement. This dynamic is in part related to the nature of the indicators, many of which are unlikely to increase or decrease quickly. For instance, once a household has access to clean piped water or sewage, it is likely to have this access also during COVID-19, and when household members have low human capital, that situation is unlikely to be affected by the pandemic. A few indicators did show movement: the share of people living in a household with a long-term unemployed or a discouraged worker increased, probably due to the difficulties in finding a job in the context
of the pandemic. In addition, the share of people living in a household with at least one worker without full labor rights decreased during the pandemic, presumably because many of these workers lost their employment to begin with.

Figure 3.14 Many indicators of the multidimensional poverty index remained stable during the COVID-19 crisis

Source: Authors’ calculations based on ENAHO (2010, 2019, 2020, 2021).
Note: Colors differentiate the five domains of the multidimensional poverty index: education (dark blue), social assistance (red), health (green), housing and internet access (light blue), and employment (pink).

Reductions in multidimensional poverty over the past decade were especially pronounced in rural areas (figure 3.15, panel a). In 2010, at the start of the measurement period, over half of Costa Rica’s rural population could be categorized as multidimensionally poor (figure 3.15, panel b). By 2019, this share had declined to 31 percent. Multidimensional poverty in urban areas declined over this same period as well. However, there were some fluctuations over time and the total decline at the end of the measured period (in terms of percentage points) in urban areas was not as pronounced as in rural areas. Nonetheless, as of 2019 the share of multidimensionally poor in urban areas of Costa Rica (17 percent) was well below the share of multidimensionally poor in rural areas (30.7 percent).
Figure 3.15 Multidimensional poverty declined more quickly in rural areas but continued to exceed multidimensional poverty in urban areas

Panel a. Multidimensional poverty index by area, 2010-21 (% of population)

Panel b. Headcount ratio and intensity index by area, 2010-21

Source: Authors’ calculations based on ENAHO (2010–21).

Despite the significant decline in multidimensional poverty in rural areas, disparities between urban and rural areas remain visible. Figure 3.16 compares the indicators in the multidimensional poverty index for rural and urban areas in 2021. Rural areas are markedly worse off on a few indicators. Those living in rural areas were less likely to have access to piped water (15 vs. 5 percent), garbage disposal services (23 vs. 2 percent), and internet connections (10 vs. 4 percent). Adults in rural areas have on average attained lower education levels and are thus more likely to be considered to have low human capital. Moreover, adults in rural areas are more likely to be out of the labor market or to hold jobs that do not offer full labor rights.
Figure 3.16 Despite the significant decline in multidimensional poverty in rural areas, disparities between urban and rural areas remain visible.

Headcount ratio for each indicator by area, 2021 (% of population)

Source: Authors’ calculations based on ENAHO (2021).
Note: Colors differentiate the five domains of the multidimensional poverty index: education (dark blue), social assistance (red), health (blue), housing and internet access (green), and employment (yellow).
Chapter 4 Trends in household income sources
High-level policy directions

- The income generation of less-educated adult males suffered a major setback over the decade before COVID-19. This has had significant implications for the poorest households. The contribution of less-educated adult males to the income of households lower in the income distribution has been systematically eroding, increasing the dependency of the poorest households on public transfers.

- While the income-generating capacity of men in the bottom of the income distribution declined, the income-generating capacity of women across the income distribution did not improve. In the decade before COVID-19 the share of women’s labor in household income remained effectively constant.

- The composition of income sources of poor households is changing as a result, with implications for antipoverty initiatives. Compared to a decade ago, the contribution of labor to household income of poor households has declined substantially and reliance on public transfers has increased. Social assistance, now a critical source of livelihood for the poorest, has become an even stronger priority than it used to be.

This chapter explores how household income sources changed, both before and during the pandemic. The analysis highlights the fact that, even if total real incomes in the bottom of the income distribution were comparatively stable in the decade prior to COVID-19, the distribution of income sources was not: income from labor declined and income from social assistance increased at roughly the same pace. Chapter 5 and 6 on labor markets and social assistance explain patterns in household income changes in more detail.

A key finding presented in this chapter is that the relative contribution of labor declined in the bottom of the income distribution. In the lowest income quintile, for instance, labor income made up a bit over 70 percent of total household income in 2010. By 2019, this share had declined to about 55 percent. The COVID-19 pandemic aggravated this trend and led to a further decline in the relative contribution of labor income for poor households.

Expanded income from public transfers and pensions fully offset the drop in labor income in the decade before, but not during, the COVID-19 crisis. In the decade before COVID-19, public transfers and pensions gained in importance for poorer households. For those in the bottom of the income distribution, they fully compensated for the decline in labor income, ensuring that real incomes were stable. During COVID-19, however, the decline in labor income could only be partially offset by an increase in public transfers. Households employed coping strategies, such as drawing down savings and borrowing to cushion this shock.

Declining labor income in the bottom of the income distribution is driven primarily by less-educated adult men. Labor income of those with less than secondary education declined in particular. This trend stands in sharp contrast to that for those who completed secondary education or higher. Their contributions to household income increased, especially higher in the income distribution. The decline in labor income lower in the income distribution was gendered and mostly visible among men. Higher in the income distribution women's labor income increased, where it was the driving
source of growth. The income generated by youth declined across the income distribution. However, this decline was not the main driving force behind declining labor income lower in the income distribution and appears to be associated with improvements in school attainment.

4.1. The contribution of labor to household income declined in poorer households

In the decade prior to COVID-19, total real household income remained stable in the left-hand side of the income distribution. However, the relative contribution of labor to household income declined while that of pensions and transfers increased. In 2010, income from labor made up over 70 percent of total income for those in the lowest income quintile (i.e., the poorest 20 percent of the population; figure 4.1). Pensions and public transfers made up about 16 percent of their income. By 2019, income from labor comprised only about 55 percent of total income for those in the bottom quintile (figure 4.1). The decrease in labor income was offset by an increase in the contribution of pensions and public transfers to about 30 percent in 2019. The evolution of the different sources of household income in the lowest income quintile can be seen in more detail in figure 4.2. This figure shows that the value of labor income (in 2010 colones) declined from about 32,000 in 2010 to 24,000 in 2019, while the values of pensions and public transfers (in 2010 colones) increased from 4,500 to 8,200 and from 2,500 to 4,800, respectively. As shown in figure 4.1, changes in the composition of household income are not nearly as pronounced higher in the income distribution. In comparison with the bottom two quintiles, fluctuations in the sources of household income are negligible for the top 60 percent (quintiles 3–5).

With COVID-19, total real income declined rapidly across the income distribution. The contribution of labor income to total household income decreased further, especially in poorer households. Public transfers gained in importance, but could not fully offset the fall in labor income. COVID-19 exacerbated the declining contribution of labor income in the bottom of the income distribution. In the poorest income quintile, the contribution of labor income collapsed to about 40 percent of total household income (figure 4.1). The average value of public transfers received by households in the lowest income quintile increased from about 4,800 to about 10,500 (in 2010 colones; figure 4.2) and their contribution to household income soared to nearly 30 percent (figure 4.1). This pattern is less pronounced higher in the income distribution. In the top quintile the contribution of capital income was reduced somewhat, but by and large the relative contributions of different income sources in 2020 are not substantially different from what they had been in 2019. With the 2021 economic recovery, the distribution of income sources reverted broadly toward the 2019 level.
Figure 4.1 Contribution of labor to household income diminished for households in the bottom income quintile

Source: Authors’ calculations based on ENAHO (2010, 2019, 2020, 2021).
Figure 4.2 In the bottom income quintile, diminished per capita labor income in poorer households was offset by an increase in the value of public transfers and pensions before but not during the pandemic.

The declining relative contribution of labor income for households lower in the income distribution can be observed in both urban and rural areas. In urban areas, the contribution of labor to household income in the lowest income quintile declined from over 70 percent in 2010 to around 60 percent in 2019. In rural areas, it declined from nearly 60 to less than 50 percent. COVID-19 led to a further contraction in labor income in both urban and rural areas that was especially dramatic in the former, where the relative contribution of labor income declined to about 42 percent. Again, in the higher income quintiles no such contraction of labor income could be observed in either urban or rural areas. In relative terms, public transfers and pensions played a larger role in cushioning the COVID-19 shock in rural areas. In the bottom income quintile, they made up about 50 percent of total household income in 2020 and thus were critical in preventing an even larger increase in poverty.

Source: Authors’ calculations based on ENAHO (2010–21).
4.2. Subgroups driving the decline in labor income

Declining labor income in the bottom of the income distribution was driven primarily by a reduction in the earnings of less-educated adult males.

During the decade before COVID-19, a strong decline in the contributions of less-educated workers to household income can be observed in the bottom of the income distribution. A decline in income from work of those with incomplete secondary education or less prior to COVID-19 can be observed throughout most of the income distribution. The reduced contribution to per capita household income of those with lower levels of education, however, is especially visible in the bottom of the income distribution. In the bottom quintile, the decline in income generated by workers with less than complete secondary education equaled nearly 20 percent of average 2010 income (negative blue bar in figure 4.3). The decline in labor income in the bottom quintile was offset primarily by increased receipt of pensions and public transfers, leaving net household income (pink diamonds in figure 4.3) roughly unchanged. Labor earnings by those with higher levels of education were of limited importance in the bottom of the income distribution. Higher in the income distribution, in contrast, the increased labor income of those with secondary education or more was the main force driving the observed increase in real household incomes.

Figure 4.3 In the bottom of the income distribution, declining labor incomes of those with low levels of education were offset by increasing income from pensions and public transfers

Source: Authors’ calculations based on ENAHO (2010, 2019).
The declining contribution of labor to per capita household income in the bottom quintile is not driven by demographic changes. The contribution of labor to per capita household income depends in part on the number of dependent children per household. To put it simply, a higher number of dependent children implies that there are more mouths to feed per adult worker. However, an increasing child-dependency ratio is not driving the declining contribution of labor. In fact, the share of children ages 14 and younger in the bottom quintile declined from 36 to 31 percent over the course of the decade before COVID-19. (Indeed, Costa Rica’s population was aging over this period and its entire population shifted away from a pyramid shape.) Instead, the explanation for the declining contribution of labor lies in worsening labor market outcomes in the bottom quintile. The remainder of this subsection in part shows that the declining contribution of labor was especially salient in urban areas and among working-age men. Chapter 5 will zoom in on labor market outcomes in more detail to explain this phenomenon.

Declining labor market income over the decade before COVID-19 was particularly salient in urban areas (figure 4.4). Urban areas became more unequal in terms of labor market outcomes and per capita household income. The bottom income quintile saw the contribution of labor deteriorate; per capita income earned by less-educated workers declined by 17.5 percent. In the top quintile, however, income earned by more-educated workers increased by more than 10 percent. In rural areas, the story was markedly different. The decline in labor income of less-educated workers in the bottom quintile was also pronounced, but at 8 percent not as dramatic. Pensions and public transfers played a more prominent role in rural areas and jointly contributed an additional 20 percent to household income. Hence, while income inequality increased in urban areas, it decreased in rural areas.

Figure 4.4 Over the decade before COVID-19, income trends diverged in urban and rural areas

Panel a. Contribution of each income source to the growth rate of per capita household income by quintile, urban areas, 2010-2019

Panel b. Contribution of each income source to the growth rate of per capita household income by quintile, rural areas, 2010-2019

Source: Authors’ calculations based on ENAHO (2010, 2019).
The labor income contribution of men declined in the decade before COVID-19, particularly lower in the income distribution. Throughout most of the income distribution, a decline in the labor income of men can be observed (blue bar, figure 4.5) in the period from 2010 to 2019. The drop in men’s labor income was especially pronounced lower in the income distribution: in the bottom quintile, it represented 18 percent of 2010 household income. The contribution of women’s work to household income, in contrast, increased higher in the income distribution. In the bottom of the income distribution, changes in income from women’s work are negligible compared to the decline in income from men’s work and the increase in income from pensions and transfers. However, higher in the income distribution most of the growth in household income can be attributed to women’s increased labor income. As will be explained in the following section, the decline in labor income in the lowest quintile is driven by a decline in employment and an increase in underemployment (of men with lower levels of education).

Figure 4.5 In the bottom of the income distribution, the labor income contribution of men declined in the decade before COVID-19
Declining labor income in the bottom of the income distribution is driven primarily by adults, not youth. Throughout much of the income distribution, the contribution of youth (ages 15 to 24) to household income declined in the decade before COVID-19 (figure 4.6). This decline is of roughly similar magnitude in the lowest four quintiles. As shown also in Chapter 5, this decline is associated with delayed entry into the labor market driven by increased school attainment. The decline in youth labor earnings, however, is not the main driver of the decline in labor income in the bottom quintile. Rather, the decline in the bottom of the income distribution is driven by adults ages 25 and older.

Figure 4.6 The labor income of youth declined throughout most of the income distribution

During COVID-19 income from employment fell rapidly across the entire income distribution, and it was only partially compensated for by public transfers (figure 4.7). The fall in labor income was especially dramatic in the lower quintiles. In the second quintile, the drop in labor income equaled more than a quarter of 2019 income. Higher in the income distribution the decline in labor income still represented more than 10 percent of total household income. Increased income from public transfers—especially the Bono Proteger emergency program discussed in Chapter 6—could only partially offset the decline in labor income during the pandemic.25

25 Declines in pensions and private transfers in the bottom quintiles were driven partly by a composition effect; the poorest households in 2020 were not necessarily the poorest households in 2019.
Figure 4.7 During the pandemic income from employment fell rapidly across the income distribution.

Contribution of each income source to the growth rate of per capita household income by quintile, 2019-2020.

Source: Authors' calculations based on ENAHO (2019, 2020).

Income from work regained importance during the recovery phase (figure 4.8). An increase in income from employment can be observed across the entire income distribution. This increase was most pronounced in the bottom three quintiles, where it equaled more than 20 percent of 2020 income. The increase in income from work was partially offset by a decline in receipt of public transfers, particularly the discontinuation of the Bono Proteger emergency transfers. Due to their targeted nature, the decline in income from public transfers was more pronounced in the bottom of the income distribution.
Figure 4.8 Declining public transfers partially offset the increase in income from work during the 2021 recovery

Contribution of each income source to the growth rate of per capita household income by decile, 2020-21

Box 4.1 Coping strategies during COVID-19

Households resorted to coping strategies to help offset the resulting fall in household income. As shown earlier, households experienced sharp income declines during COVID-19, despite government social assistance measures. In response to these income declines, it was not uncommon for households to draw down their savings or take out loans (figure B.4.1.1). There is suggestive evidence that these coping strategies were more commonly used by middle-income households, who have savings and more access to credit than poor households. It should be noted that these coping strategies are problematic even for middle-class households, as they can lead to heightened household vulnerability and reduced ability to deal with future shocks.

Source: Authors’ calculations based on ENAHO (2020, 2021).
The type of coping strategy used by households depended on the education levels of the household head. If the household head had a higher level of education, the household was more likely to rely on savings. Presumably this is because these households had a greater amount of savings at the start of the pandemic to draw on. If the household head had a lower level of education, in contrast, the household was comparatively more likely to rely on loans. (Findings not displayed in a separate graph).
Chapter 5 Labor market
High-level policy directions

- Efforts to improve the position of lower-educated workers need to be cross-sectoral and economy wide. Economic growth over the period since 2010 has not resulted in enhanced opportunities for less-educated workers. Nearly every sector has been reducing its reliance on less-educated workers and sectors employing many low-educated workers are on the decline. As a result, the labor market situation of less-educated workers (especially male) deteriorated noticeably, in terms of all key labor market indicators, including labor force participation, unemployment, full-time working hours, and formality.

- Labor market policy for less-educated workers could entail a focus not only on labor market participation, but also on security in the labor market and payoff. Not only have employment opportunities for the less educated deteriorated, but the situation of the less educated who do work has deteriorated as well. A markedly higher share of less-educated workers is now in informal employment with negative implications for their earnings. To illustrate this, nearly half of all less-educated workers can be classified as poor.

- There is ample room for improved inclusion of women in the labor market. Costa Rica’s labor force participation rate for women is among the lowest in the region, and markedly below that of other countries in the region with comparable GDP per capita. To improve the labor market outcomes of women, a first priority is to provide alternative care options and achieve a more equal distribution of caregiving tasks.

This chapter aims to shed more light on the declining contribution of labor to household income among poorer households. Chapter 4 showed that labor income declined in the bottom of the income distribution. In the lowest income quintile, for instance, labor income as a share of total household income declined from more than 70 percent in 2010 to about 55 percent in 2019. COVID-19 aggravated this trend and led to a further decline in the relative contribution of labor to household income for poor households. The aim of this chapter is to describe the labor market trends that underly the declining labor income in the bottom of the income distribution.\(^{26}\)

The chapter first shows that labor market opportunities for workers (especially men) with lower levels of education declined across virtually all sectors. Over the decade before COVID-19, almost all sectors reduced their reliance on workers with less than secondary education. Declining reliance on workers with lower levels of education was compounded by an overall decline in employment opportunities and pay in sectors that typically employ comparatively high numbers of men with low levels of education. In contrast, employment and pay increased in high-paying sectors typically employing highly educated workers. During the crisis, employment and real income declined in almost all sectors.

\(^{26}\) To ensure consistency with the previous chapters, the labor market analysis is based on the ENAHO household survey. Annex 2 examines how the ENAHO and the national labor force survey compare.
The decline in economic opportunities for less-educated workers is reflected primarily in the bottom of the income distribution. From 2010 to 2019, labor force participation declined while unemployment and underemployment rates increased among workers in the bottom quintile. The deterioration in labor market outcomes was especially prominent for less-educated male adults (the largest group of workers in the bottom of the income distribution). This trend explains the decline in labor market income in the bottom of the income distribution shown in Chapter 4.

The chapter ends by giving a snapshot of the labor market in 2021. It shows a strong gender gap in labor market outcomes. The gender gap is driven primarily by an unequal distribution of caregiving burdens across women and men. It confirms the pronounced remaining dichotomy in labor market outcomes of more- and less-educated workers and it notes that the increasing school attainment of youth (described in Chapter 2) went hand-in-hand with declining labor force participation rates of youth.

5.1. Sector-level changes did not favor workers with lower levels of education

Labor force participation and unemployment showed modest deterioration in the final years of the decade before COVID-19. As can be inferred from figure 5.1, labor force participation and unemployment were flat during the beginning of the decade. From 2010 to 2016, the labor force participation rate was approximately 60 percent and the unemployment rate (right-hand y-axis) about 7.5 percent. In accordance with deterioration in macroeconomic prospects (see also Chapter 2), labor market indicators began to deteriorate after 2016. The labor force participation rate declined by about 2.5 percentage points, while the unemployment rate increased by about 2 percentage points.

The onset of COVID-19 had a dramatic impact on the labor market. The labor force participation rate declined by about 4 percentage points. The unemployment rate nearly doubled from a little over 9 to 17.5 percent. As a result, the employment rate fell by over 8 percentage points (not displayed). While a recovery was clearly visible at the time of the 2021 ENAHO, labor market indicators had not yet bounced back to prepandemic levels.
Deteriorating labor market outcomes were the result primarily of declining opportunities for less-educated workers. Over the decade before COVID-19, almost all sectors reduced their reliance on workers with less than secondary education. This can be observed in table 5.1 below, which shows the employment rates and shares of workers who had completed primary education or less by sector (left two columns) and the changes in the rates and shares from 2010 to 2019 (right two columns). Most sectors reduced their reliance on workers with less than secondary education in the decade before COVID-19. This includes both sectors that traditionally employ high numbers of workers with low levels of education—the primary sector (agriculture, forestry and fishing), construction, and accommodation and food services—and sectors that do not. The overall percentage of workers with incomplete secondary declined by 5 percentage points [column 3 of table 5.1]. Declines were especially pronounced in accommodation and food services [-9.3 percentage points]; transportation and storage, information and communication [-8.9]; and manufacturing [-8.5].
### Table 5.1 Rate at which different sectors employ workers with incomplete secondary education and total share of workers with incomplete secondary education by sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Rate 2019</th>
<th>Share 2019</th>
<th>Rate 2010-19 pp. change</th>
<th>Share 2010-19 pp. change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry, and fishing</td>
<td>84.8</td>
<td>16.8</td>
<td>-2.5</td>
<td>-1.8</td>
</tr>
<tr>
<td>Activities of households as employers</td>
<td>82.7</td>
<td>12.4</td>
<td>0.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Construction</td>
<td>76.8</td>
<td>9.1</td>
<td>-5.5</td>
<td>1.3</td>
</tr>
<tr>
<td>Accommodation and food service activities</td>
<td>61.8</td>
<td>7.8</td>
<td>-9.3</td>
<td>1.1</td>
</tr>
<tr>
<td>Other service activities</td>
<td>58.5</td>
<td>6.1</td>
<td>1.5</td>
<td>2.3</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>54.7</td>
<td>11.2</td>
<td>-8.5</td>
<td>-2.2</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>54.3</td>
<td>16.1</td>
<td>-6.5</td>
<td>-4.0</td>
</tr>
<tr>
<td>Transportation and storage, information and communication</td>
<td>46.8</td>
<td>6.6</td>
<td>-8.9</td>
<td>0.3</td>
</tr>
<tr>
<td>Electricity, gas, and water supply</td>
<td>39.2</td>
<td>1.0</td>
<td>1.3</td>
<td>-0.2</td>
</tr>
<tr>
<td>Real estate activities</td>
<td>38.0</td>
<td>7.3</td>
<td>-0.1</td>
<td>2.6</td>
</tr>
<tr>
<td>Public administration and defense</td>
<td>20.6</td>
<td>2.0</td>
<td>-4.9</td>
<td>-0.3</td>
</tr>
<tr>
<td>Education</td>
<td>16.7</td>
<td>2.2</td>
<td>-1.7</td>
<td>-0.1</td>
</tr>
<tr>
<td>Human health and social work activities</td>
<td>16.2</td>
<td>1.1</td>
<td>-0.9</td>
<td>0.0</td>
</tr>
<tr>
<td>Financial and insurance activities</td>
<td>5.8</td>
<td>0.3</td>
<td>0.6</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>52.5</strong></td>
<td><strong>100.0</strong></td>
<td><strong>-4.9</strong></td>
<td><strong>0.0</strong></td>
</tr>
</tbody>
</table>

*Source: Authors’ calculations based on ENAHO (2010, 2019).*

The declining reliance on workers with lower levels of education was compounded by an overall decline in employment opportunities and pay in low-paying sectors that typically employ comparatively high numbers of workers with low levels of education. Chapter 2 discussed growth of different economic (sub-)sectors in terms of value added. It showed that the structural labor reallocation had mixed effects. While some of Costa Rica’s comparatively low-productivity sectors declined, others grew. Figure 5.2 returns to this issue, now focusing on growth of average annual labor income in real terms (y-axis) and employment (x-axis) from 2010 to 2019. Again, the size of the bubbles reflects the share of each industry in total employment in 2010. A red bubble indicates that an industry offered below-average pay in 2010, whereas a black bubble indicates above-average pay at that time. Not coincidentally, the seven sectors offering below-average pay are also the sectors employing less-educated workers at high rates (see table 5.1). The three biggest and comparatively low-paying sectors—agriculture, fishing, and forestry; wholesale and retail trade; and manufacturing—
each contracted in terms of number of workers. Moreover, real labor income growth was negative in two of the low-paying sectors that did grow in terms of employment: activities of households as employers and other services.

In contrast, employment and pay increased in high-paying sectors typically employing mostly highly educated workers.\textsuperscript{27} Except for utilities (electricity, gas, and water), all of Costa Rica’s comparatively well-paying sectors grew in terms of employment. The combined transportation and storage, information and communication sector stands out for the combination of comparatively high income and employment growth it experienced and the real estate sector stands out for its high rate of employment growth.

Figure 5.2 Employment and real income growth by sector, 2010–19

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure5.2}
\caption{Employment and real income growth by sector, 2010–19}
\end{figure}

\textit{Source:} Authors’ calculations based on ENAHO (2010, 2019).
\textit{Note:} Red and black balloons represent subsectors with an average labor income below and above the average for the whole economy, respectively. The size of the balloons represents the share of employment in each industry in 2010.

Economic opportunities of women improved only marginally in the decade before COVID-19. Costa Rica is known for its low female labor force participation rate. According to SEDLAC, which harmonizes poverty and labor market indicators from household surveys across Latin America and the Caribbean, Costa Rica’s female labor force participation is among the lowest in the region and comparable with that of countries with much lower GDP per capita, such as Guatemala, Honduras, and El Salvador. Improvements over the decade before COVID-19 were limited. As shown in table 5.2, about 39 percent of workers were female in 2019. This represented only a one percentage point increase compared to 2010. Some differences across sectors can be observed, with the rate of female workers declining in the

\textsuperscript{27} Indeed, Mincerian regressions based on the ENAHO 2010 and 2021 [not displayed in this report] indicate that the returns to tertiary education increased over the decade before COVID-19.
other services sector and expanding in public administration, household employers, and health and social work. The sectors that had negative employment growth in the decade before COVID-19 – agriculture, fishing & forestry; wholesale & retail trade; and manufacturing – are all male dominated and hence led to a relative deterioration in the position of (lower-educated) men in the labor market.

Table 5.2 Employment rates of women and total shares of women employed, by sector

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities of households as employers</td>
<td>86.7</td>
<td>17.4</td>
<td>3.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Education</td>
<td>69.0</td>
<td>11.9</td>
<td>0.7</td>
<td>-0.7</td>
</tr>
<tr>
<td>Human health and social work activities</td>
<td>65.6</td>
<td>6.1</td>
<td>3.6</td>
<td>0.1</td>
</tr>
<tr>
<td>Accommodation and food service activities</td>
<td>57.3</td>
<td>9.7</td>
<td>0.2</td>
<td>1.7</td>
</tr>
<tr>
<td>Financial and insurance activities</td>
<td>45.6</td>
<td>3.2</td>
<td>-4.0</td>
<td>-0.2</td>
</tr>
<tr>
<td>Public administration and defense</td>
<td>43.7</td>
<td>5.6</td>
<td>6.2</td>
<td>0.5</td>
</tr>
<tr>
<td>Other service activities</td>
<td>40.9</td>
<td>5.7</td>
<td>-9.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>36.6</td>
<td>14.5</td>
<td>-0.5</td>
<td>-3.9</td>
</tr>
<tr>
<td>Real estate activities</td>
<td>34.9</td>
<td>8.9</td>
<td>3.2</td>
<td>3.1</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>33.8</td>
<td>9.2</td>
<td>1.2</td>
<td>-1.1</td>
</tr>
<tr>
<td>Electricity, gas, and water supply</td>
<td>19.0</td>
<td>0.7</td>
<td>2.6</td>
<td>-0.1</td>
</tr>
<tr>
<td>Transportation and storage, information and communication</td>
<td>18.1</td>
<td>3.4</td>
<td>-0.2</td>
<td>0.3</td>
</tr>
<tr>
<td>Agriculture, forestry, and fishing</td>
<td>12.2</td>
<td>3.2</td>
<td>0.2</td>
<td>-0.6</td>
</tr>
<tr>
<td>Construction</td>
<td>3.6</td>
<td>0.6</td>
<td>0.8</td>
<td>0.2</td>
</tr>
<tr>
<td>Total</td>
<td>39.4</td>
<td>100.0</td>
<td>1.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations based on ENAHO (2010, 2019).

During the crisis, employment declined in all sectors except the agriculture, forestry, and fishing sector. As shown in figure 5.3, declines in income and employment were especially strong in accommodation and food services and other service activities. These declines, as discussed in Chapter 2, were related to the contraction of tourism and international travel. A co-movement in income and employment declines can be observed during COVID-19, as sectors that exhibited strong employment declines also tended to exhibit strong declines in pay. While income growth in agriculture was negative, it is the only sector that avoided a decline in employment. Public administration and defense and education were the only sectors not to see a reduction in income.
5.2. Deteriorating labor market outcomes felt lower in the income distribution

The deterioration in labor market outcomes over the decade before COVID-19 is reflected in the bottom of the income distribution. Chapter 4 showed that labor income has been declining in the bottom quintile and the argument was made that a changing child-dependency ratio could not explain the declining per capita labor income. Instead, a deterioration in labor market outcomes drove the declining per capita labor income in the bottom of the income distribution. This section explores deteriorating labor market incomes in the bottom of the income distribution in more detail.
Labor market outcomes of workers in the bottom of the income distribution declined in almost all respects. Figure 5.4 shows changes in four key labor market outcomes by income quintile: labor force participation, unemployment, underemployment, and median real hourly wages. A structural deterioration in the labor market situation of households in the bottom income quintile can be observed. Their labor market outcomes deteriorated in all respects over the decade before COVID-19. Labor force participation declined from 45 percent in 2010 to 40.5 percent in 2019. Unemployment and underemployment rates increased; by 2019, workers in the bottom of the income distribution were markedly more likely to be unemployed or underemployed than in 2010 and their unemployment and underemployment rates had increased compared to the higher income quintiles. The COVID-19 crisis exacerbated the situation by generating a sharp spike in unemployment, from which the bottom quintile had not fully recovered by 2021. Impacts on labor force participation and real hourly wages were not as dramatic. Only the top income quintile experienced an improvement in labor market outcomes. For instance, while real hourly wages were mostly flat in the lower part of the income distribution, they increased in the top quintile. The remainder of this subsection zooms in on the bottom quintile to better understand deteriorating labor market outcomes and their implications for household income.

Figure 5.4 Deteriorating labor market outcomes are observed in the bottom of the income distribution
Most of the deterioration in labor market outcomes in the bottom of the income distribution in the decade before COVID-19 was driven by less-educated adult men. Figure 5.5 shows that in 2010 the employment rate among those ages 15 and older was nearly 35 percent. Less-educated men made up the bulk of these workers, representing over 60 percent of those employed. Less-educated female workers constituted a little less than 30 percent of workers. It was relatively uncommon for workers in the bottom quintile to have completed education beyond primary. By 2021, as a result of declining labor force participation and increasing unemployment, the employment rate among those ages 15 and older had declined to less than 30 percent. Much of this decline was driven by a reduction in the share of working less-educated men. The share of working less-educated women, however, also showed a sizeable reduction.
Figure 5.5 Share of less-educated men out of all working adults declined strongly in the bottom quintile

Employment rate by gender and level of education (% of population ages 15 and over). First quintile

<table>
<thead>
<tr>
<th>Year</th>
<th>Female - up to inc sec</th>
<th>Female - comp sec or more</th>
<th>Male - up to inc prim</th>
<th>Male - comp sec or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>10.1</td>
<td>0.9</td>
<td>21.7</td>
<td>16.2</td>
</tr>
<tr>
<td>2021</td>
<td>8.2</td>
<td>2.4</td>
<td>16.2</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations based on ENAHO (2010, 2021).

**Formal employment and informal wage work have been on the decline in the bottom quintile.** Figure 5.6 shows the distribution of workers in the bottom quintile across formal workers, informal wage earners, and other informal workers. In 2010, nearly 9 percent of the population ages 15 and older (or about 25 percent of all workers) could be categorized as formal workers. The remaining workers were in informal employment. By 2021, only about 6 percent of the population ages 15 and older (still about 25 percent of workers) could be classified as formal workers. The share of informal wage earners had declined, too, indicating that not only did their labor market participation deteriorate, but so did their security in the labor market.
Figure 5.6 In the bottom quintile, the shares of formally employed and informal wage earners have been declining among those ages 15 and older.

**Employment rate by labor status (% of population aged 15 and over).**

First quintile

![Bar chart showing employment rates by labor status for 2010 and 2021.]

- **Formal workers**: 13.1% in 2010, 14.1% in 2021
- **Informal wage earners**: 13.1% in 2010, 8.9% in 2021
- **Other informals**: 8.7% in 2010, 6.3% in 2021

*Source: Authors’ calculations based on ENAHO (2010, 2021).*

The increasing share of informal, nonwage work led to downward pressure on income from work in the bottom quintile. Figure 5.7 shows median hourly wages in the three employment categories discussed in the previous paragraph: formal workers, informal wage earners, and other informal workers. From 2010 to 2021, median hourly wages increased for all three groups of workers. The wage increase was most prominent for formal workers and their hourly wages remained well above those of informal workers. Of the three groups, other informal workers were clearly the worst off. By 2021, their hourly wages were only about half of the hourly wages of formal workers and about two-thirds of the hourly wages of informal wage workers. Although median hourly wages increased for all three groups, the increasing share of other informal workers has kept median hourly wages of all workers (the green line labeled “total” in the chart) effectively constant. Other informal workers becoming a more prominent part of the working population exerted downward pressure on wages in the bottom of the income distribution.
Figure 5.7 A shift toward informal, nonwage work exerted downward pressure on income from work in the bottom quintile

Median real hourly labor income by employment status (in colones 2010).

First quintile

Source: Authors’ calculations based on ENAHO (2010, 2021).

Box 5.1 The effect of COVID-19 on employment of vulnerable groups

The COVID-19 pandemic generally hit employment of vulnerable groups and other groups who already had worse labor market outcomes harder. Figure B.5.1.1 shows post-COVID-19 employment declines by gender (dark blue), age (red), nationality (blue), status in employment (green), formality (yellow), and level of education (light blue). The dashed line shows the average decline in employment across all groups. Declines in employment of women (-17 percent) exceeded those of men (-12 percent). Declines in employment were much higher among youth (-30 percent) than older age cohorts. Nicaraguan (-22 percent) and other migrants (-25 percent) experienced stronger employment declines than Costa Rica nationals. A greater percentage (21) of those working without a salary lost their livelihoods than of those who worked for a wage. Declines in employment were 19 percent for informal workers compared to 11 percent for formal workers. Finally, those with lower education levels were more likely to lose their employment: those who had at most completed primary education experienced a decline in employment of 17 percent, whereas those with tertiary education experienced a much smaller decline of 2 percent.
In 2021, employment tended to bounce back more quickly for those groups affected most by the pandemic. This can be seen in figure B.5.1.2. However, this is not universally true. For instance, employment of workers without a salary did not recover as quickly as the employment of salaried and independent workers and the recovery of employment of workers with up to primary education lagged that of workers with secondary education. Furthermore, although employment rates improved, they did not revert to prepandemic levels.

Source: Authors’ calculations based on ENAHO (2019, 2020).
5.3. A snapshot of the labor market in 2021

Costa Rica’s labor market continues to be characterized by clear dichotomies between women and men and those with higher and lower levels of education. Even though the position of (especially less-educated) men on the labor market has deteriorated, a pronounced gender gap in labor market outcomes remains visible. As shown in panel a of figure 5.8, in 2019 men were better off than women on four out of five key labor market indicators: labor force participation, employment, full-time work, and earning a living wage (defined here as a worker who earns at least three times the poverty line). Only the formality rate is roughly equal for men and women. A pronounced gap in labor market outcomes is also visible by education level. Those with higher levels of education did better on all fronts than those with lower levels of education (figure 5.8, panel b). They are more likely to be in the labor force, be employed when in the labor force, have a full-time job, be in formal employment, and earn a living wage.
Figure 5.8 There was a clear dichotomy in the 2021 labor market outcomes of women and men, and those with lower and higher levels of education.

Source: Authors’ calculations based on ENAHO (2021).

Box 5.2 Regional comparison of labor force participation rates

In 2019 the labor force participation rate in Costa Rica was among the lowest in the region for both men and women. According to SEDLAC, it was 79 percent in the case of males, slightly higher only than in Chile (78.6 percent), and 50.7 percent in the case of females, which was only higher than the rates in countries with a lower GDP per capita—such as Guatemala, Honduras, and El Salvador. Additionally, the gap between Costa Rica and the regional average is wider for women than for men (7.2 versus 4.5 percentage points).
Figure B.5.2.1 Labor force participation rates of both men and women are low when compared with labor force participation rates of other countries in the region.

Source: World Development Indicators and SEDLAC (CEDLAS and World Bank).

Note: Labor force participation rate for the population ages 15–64 and GDP per capita at 2017 PPP, by country, as of 2019.
When adult women are out of the labor force, this is typically because of family obligations. For adult men, this is rarely the case. Figure 5.9 shows the reasons for not looking for a job among the economically inactive population in 2021. The figure distinguishes patterns by gender, age and, for those 25–64 years old, education level. There is a dramatic gender difference in the probability of being out of the labor force because of family obligations. Men 25 to 64 are rarely out of the labor force for this reason, while for women in this age category it is the dominant reason to leave the labor force. In fact, the gender difference in labor force participation rates is almost entirely driven by family obligations.

More-educated women are markedly less likely to be out of the labor force than less-educated women. There are pronounced differences in labor force participation rates of more- and less-educated women. The probability of being out of the labor force for women who had completed up to primary education was almost four times that of women who had completed tertiary education. This difference, too, is almost entirely driven by family obligations.

The pronounced gender gap in contributions to household and family obligations is confirmed by a time use survey administered in 2017. According to the results of this survey (INEC 2018), the average number of hours spent on unpaid household services is around 2.5 times higher for women than for men (almost 36 versus almost 14 hours, respectively). Again, this gap is wider for those women and men with lower levels of education (women with complete primary and incomplete secondary spend around 3 times the number of hours on these services that men do) and narrower for those with superior education (around 2 times). In contrast with the ENAHO, the time use survey also enables the decomposition of time spent on household obligations, which for women are spread across cooking (38.8 percent), cleaning (25.1 percent), taking care of children (15.1 percent) and doing laundry (11.4 percent).

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28 Although the reasons for not looking for a job are not mutually exclusive, they are prioritized by the INEC. If someone is a pensioner and rentier, they are categorized as a pensioner. If someone answers that they are attending school and have family obligations, they are categorized as “attending school.” Those with family obligations are those who are neither pensioners nor rentiers nor attending school.

29 According to Blyde (2020), Nicaraguan migration increases the availability of domestic workers and thus has a positive effect on employment and income of high-skilled Costa Rican women (see box 3.3 in this report).

Figure 5.9 Decomposition of economic inactivity rates by gender, age, and education level, as of 2021

Reasons for being inactive by gender, age, and level of education, 2021 (% of population)

Youth are primarily out of the labor force to study. For youths, participating in education was the primary reason for being out of the labor market in 2021. Indeed, an increase in school participation drove the decline in labor force participation among youths from 2010 to 2019. As discussed in section 3.4 on multidimensional poverty, the share of youth ages 18 to 24 who did not complete high school declined dramatically during the decade prior to COVID-19. Moreover, despite their declining labor force participation, the share of youth in education and in employment or training did not show a downward trend (see box 5.3).

Older women (65+) are more likely to be out of the labor force and have lower access to pensions than men. Among those ages 65 and older, men are more likely than women to be pensioners. Presumably, this discrepancy is explained by the fact that men are more likely to work at earlier ages and in formal jobs, which enables them to build up contributory pension benefits. Women’s contributions to family duties continue to stand out in higher age groups.

Source: Authors’ calculations based on ENAHO (2021).
In the decade before COVID-19, the probability that youth were not in education or in employment or training (often referred to as NEET in English or NINI in Spanish) declined for female and poor youth. This can be observed in figure B.5.3.1. Over the decade before COVID-19, the share of NINIs among female youth (ages 15 to 23) declined from about 24 to 19 percent. For males, this share was stable at around 12.5 percent. Declines in the probability of not being in education or employment or training were most pronounced for extreme poor youth: for extreme poor female youth, the probability went from 45 to 34 percent and for extreme poor male youth from 40 to 29 percent.

Figure B.5.3.1 In the decade before COVID-19, the probability of being a “NEET” declined for female and poor youth

Source: Authors’ calculations based on ENAHO (2010, 2021).
Chapter 6 Social assistance
High-level policy directions

- The national noncontributory pension scheme is a comparatively effective antipoverty tool. It reaches a relatively high share of those in the bottom of the income distribution and the pensions are sizeable when measured as a share of household income. Accordingly, poverty rates among the elderly are below the national average.

- There is room for social assistance measures targeted at households with children to better address poverty. Analysis suggests that a significant portion of program funds reach households higher in the income distribution. Moreover, transferred amounts make up only a comparatively small share of household income. Indeed, as shown in Chapter 3, poverty rates are markedly higher for children despite these social assistance measures.

- Costa Rica’s emergency social protection initiative during COVID-19, the so-called Bono Proteger, effectively reached a large share of the population and played an important role in poverty reduction. It should serve as an opportunity for learning about how to respond to future crises.

- One example of why readiness for future crises matters relates to learning and preparedness for more frequent and more severe climate change-induced natural disasters. As described in Chapter 7, these are expected to have especially profound implications for the poorest and most vulnerable.

This chapter discusses several key elements of Costa Rica’s social assistance system, with an emphasis on social assistance programs. As described in Chapter 4, the decline in labor income in the bottom of the income distribution in the decade before COVID-19 was offset by an increase in income from public transfers and pensions. Moreover, public transfers played an important role in offsetting the effects of the decline in labor income during the pandemic. This chapter aims to better understand which programs play the most important role in poverty reduction.

The chapter describes the main institutions involved in social assistance in the country and the main programs they run. The intention of the section is not to provide a comprehensive overview of Costa Rica’s entire social protection and assistance system, which has a complex structure and multifaceted lines of coordination and accountability. Rather, the intention is to highlight a few key social assistance programs that are of critical importance for poverty reduction.31 The discussion draws on a forthcoming report by the World Bank’s Social Protection and Jobs team.32

As described in the chapter, the largest social assistance programs in Costa Rica include noncontributory pensions and cash transfers to poor households with children. Noncontributory pensions are provided to both elderly extreme poor and elderly with specific need and cash transfers are partly conditioned on primary and secondary school participation. In the past decade, Costa Rica implemented reforms to centralize and improve the focalization of social assistance programs. During the pandemic, Costa Rica initiated a large-scale emergency support program called Bono Proteger, which temporarily doubled the share of cash transfer beneficiaries in the country.

31 A notable program not included in our discussion provides public housing.
32 Pablo Sauma (in progress), Consultoría para apoyar la preparación de un diagnóstico del sistema de protección social para Costa Rica.
In normal non-COVID times, of the major social assistance programs noncontributory pensions achieve the greatest reductions in poverty and inequality. Nearly half of all noncontributory pension benefits reach the poorest decile of the population and the size of the pensions is significant. For households in the poorest decile receiving noncontributory pensions, the ratio of pensions to market income is close to 50 percent. Consequently, noncontributory pensions make the strongest contribution to poverty reductions of the major social programs. The country’s major cash transfer programs are not as strongly targeted toward the poor and represent a smaller share of income, even for the poorest households. Hence their contribution to poverty reduction is less pronounced.

Emergency cash transfers played an important role during COVID-19, but were not able to prevent a significant increase in poverty rates. Bono Proteger was launched quickly after the start of the pandemic and by the end of 2020 nearly 700,000 individuals had received cash transfers. The benefits provided by the emergency program were not as strongly targeted toward the poor as the major non-COVID social assistance programs. Nonetheless, the emergency cash helped to reduce the increase in poverty rates, especially that of extreme poverty. Exactly how strong the offsetting effect of the emergency transfers was on poverty depends on methods of calculation, with estimates ranging from about 1 to 4 percentage points.

6.1. Costa Rica’s social assistance system

The Instituto Mixto de Ayuda Social (IMAS) is one of the cornerstones of Costa Rica’s social protection system. IMAS was established in 1971 with the purpose of eradicating extreme poverty in the country. Currently, the institute provides both “social protection” and “social promotion” services and benefits. The former includes targeted social assistance programs to help people and households living in poverty meet their basic needs and the latter includes more-universal programs to promote “social mobility.” IMAS receives about 35 percent of its funding from the Fondo de Desarrollo Social y Asignaciones Familiares (FODESAF), 35 percent in the form of various government contributions, and the remainder from multiple sources (including nearly 15 percent from payroll contributions). In 2019, IMAS had a budget of about 266,000 million colones (US$ 452 million or 0.7 percent of GDP).

The other cornerstone of Costa Rica’s social protection system is the FODESAF. FODESAF was created in 1974 to support public institutions in the provision of social services to low-income households. In 2019, FODESAF had a budget of about 664,000 million colones (US$1.1 billion or 1.8 percent of GDP). The three largest recipients of FODESAF funds are the IMAS, the CCSS, and the Banco Hipotecario de la Vivienda (BANHVI). Together these organizations receive about 70 percent of the FODESAF budget. Other recipients include a variety of organizations, such as ministries and institutes.
targeting specific population groups or thematic areas. FODESAF primarily obtains its resources from value-added taxes, with a small portion coming from payroll contributions, both of which are sensitive to economic cyclicity. The remainder of this (sub-)section discusses some of the largest social assistance measures (in terms of budget and beneficiaries) implemented by IMAS and FODESAF.

**The three biggest programs implemented by IMAS are Atención a Familias, Crecemos, and Avancemos.** The aim of Atención a Familias is to help poor households meet their basic needs such as nutrition, health care, housing, and public services. The program provides unconditional cash transfers to poor households. In 2019, the program provided support to over 135,000 households and had a budget of 61,032 million colones (US$103 million or 0.2 percent of GDP). Crecemos is the successor of a program called Fondo Nacional de Becas (FONABE) and was created in 2019. The program simultaneously aims to lower poverty and increase school enrollment and retention. The program provides cash transfers to poor households on the condition that younger children between the ages of 12 and 17 regularly attend formal preschools or primary schools. In 2019, Crecemos had a budget of 23,596 million colones (US$40 million or 0.1 percent of GDP) and over 210,000 children benefitted from this program. Avancemos was established in 2006 with the objectives of promoting school participation, reducing educational delays, decreasing the number of school dropouts, and preventing the entry into child labor of adolescent household members. The program provides cash transfers to the parents of children (ages 12 to 25) from poor households that are conditional on the children’s enrollment in and regular attendance of secondary school. In 2019, the program supported more than 203,000 students and had a budget of 73,371 million colones (US$124 million or 0.2 percent of GDP).

In response to the COVID-19 pandemic, IMAS launched a large-scale, temporary program “Bono Proteger”. The program was launched in April of 2020 to support the working population economically affected by the crisis, including those who had lost their employment, experienced a decline in working hours, or had their contracts suspended, as well as independent, informal, and temporary workers. In other words, the program was not necessarily designed to reach the poorest of the poor but more the ‘missing middle,’ people who were not receiving other benefits and who were experiencing difficulties due to the COVID-19 pandemic. Applications for participation in the program could be made through an online platform launched on April 9, shortly after the first case of COVID-19 was identified in the country. The program provided 62,500 colones (US$106) per month to individuals who had experienced a reduction in their working hours, and 125,000 colones (US$213) per month to individuals who had lost their job or were more severely affected by the pandemic (both modalities provided monthly benefits for three months). By the end of 2020, over a million people had applied for benefits and nearly 700,000 had received them for a total of almost 82,061 million colones (US$140 million or 0.2 percent of GDP). Bono Proteger was terminated in 2021, but the Ministry of Labor [among other governmental entities] is implementing measures to support labor market recovery.34

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33 FONABE remained in existence and continued to serve its postsecondary beneficiaries.
34 To our knowledge, the government does not have plans to design an emergency program that could be ‘activated’ or deployed in the time of crisis.
Regional comparisons suggest that Costa Rica’s social assistance programs are quite well targeted. Figure B.6.1.1 shows the share of the population (bars) and the share of the bottom quintile of the income distribution (diamonds) covered by social assistance in countries in Latin America and the Caribbean. The analysis is based on the World Bank’s Atlas of Social Protection Indicators of Resilience and Equity data set. In terms of overall coverage, Costa Rica ranks average in the region. About 54 percent of the population benefits from some form of social protection. However, the coverage of the bottom quintile is nearly 87 percent, comparable of that with countries with markedly higher average coverage. In other words, Costa Rica’s social assistance programs are relatively well targeted.

The single largest program supported by FODESAF is Costa Rica’s noncontributory pension scheme. The noncontributory pension scheme aims to protect those who are in urgent economic need and do not qualify for other sources of support. The noncontributory pension scheme provides both ordinary pensions to poor or extreme poor elderly ages 65 and above (nearly 88,000 recipients in 2019) and special pensions for specific groups (about 35,000 in 2019), such as those suffering from severe disabilities or widows and orphans. Implemented by the CCSS, the noncontributory pension scheme provided benefits to nearly a quarter million individuals in 2019. In 2019, this pension scheme represented nearly a quarter of the FODESAF budget at 139,519 million colones (US$237 million or 0.4 percent of GDP).
In 2015, Costa Rica began implementation of its National Strategy to Tackle Extreme Poverty, Puente al Desarrollo (hereafter Estrategia Puente). The Estrategia Puente was implemented in response to disappointment with the results of monetary poverty reduction efforts and a broad consensus that the design and operation of the social protection system could be improved. More specifically, the system had failed in the following ways: (a) its approach was to mitigate rather than reduce poverty; (b) it was demand driven, instead of trying to reach those who needed it the most; (c) it was fragmented and coordination between institutions was inadequate; and (d) each institution and program in the system had its own criteria for selecting and registering its beneficiaries.

The objective of the Estrategia Puente was “to tackle poverty from a multisectoral and interinstitutional approach” (Red2Red Consultores, 2018). To fulfil that aim, the following reforms were proposed: (a) the Consejo Presidencial Social (Social Presidential Council) would be selected as the political entity to coordinate, monitor, and evaluate the different institutions of the system; (b) the Sistema Nacional de Información y Registro Único de Beneficiarios (SINIRUBE) would be used as the sole criteria to prioritize beneficiaries and to be updated in real time; (c) a multidimensional poverty index would complement the data provided by the poverty index in the social protection policy design, because cash transfers were considered insufficient for breaking the cycle of poverty; and (d) social maps would be used to make decisions, coordinate the action of different institutions, and suggest which areas should be prioritized.

During its first four years, an impact evaluation was implemented of interventions undertaken through the Estrategia Puente. The interventions targeted 54,600 extremely poor households in 76 priority districts. These households received monetary cash transfers to cover basic needs, education, and health. And they were matched with “co-managers,” who acted as “bridges” (puentes) between the needs of extremely poor households and the services supplied by social protection institutions. Two years after its implementation, Red2Red Consultores carried out an impact evaluation using both quantitative and qualitative methodologies.

According to the impact evaluation, the interventions led to significant poverty reduction. The interventions reduced both monetary and multidimensional poverty, as monthly per capita household income increased by around 60 percent among beneficiaries. The effect was larger in rural areas, which is not out of line with the higher rural poverty rates described in Chapter 3 of this report, and in smaller households. As a result, extreme poverty was reduced among beneficiaries from 91 percent to 46 percent. In terms of multidimensional poverty, 45.5 percent of the households had at least one deprivation before the intervention, and this share was reduced to 39.0 percent two years later, in line with broader declining multidimensional poverty trends described in this report.

Finally, family dynamics improved, as a more stable household income reduced conflicts within households. However, according to the impact evaluation, the 2-year period was not enough to eliminate vulnerability to falling back into poverty. Access to services improved—especially in the cases of health, education, and social protection—but some challenges remain. Less progress was made on labor market outcomes, presumably due to a budget shortfall, and housing, and the report cautions that increased demand for services due to the success of the Estrategia Puente can lead to bottlenecks.

6.2. Targeting of social assistance programs

The principal institution responsible for identifying and selecting beneficiaries of social assistance programs is the Sistema Nacional de Información y Registro Único de Beneficiarios del Estado (SINIRUBE). SINIRUBE was established in 2013 in response to persisting concern about earlier tools (including the Sistema de Información de la Población Objetivo, SIPO) for identifying and selecting beneficiaries. It implemented a series of improvements to enhance the targeting and reduce the exclusion and inclusion errors of the social assistance programs. SINIRUBE collects demographic and socioeconomic information that is stored in a database and is used to identify the population requiring or seeking social assistance services. SINIRUBE also developed and implemented an algorithm to prioritize and identify beneficiaries and maintains agreements with other organizations implementing social programs to exchange information. According to its website, SINIRUBE’s database contains information on about 95 percent of Costa Rica’s population. In recent years, many institutions and programs have switched from their old targeting tools to SINIRUBE. However, some programs are still in the process of transitioning to SINIRUBE. When programs transition to SINIRUBE, they are responsible for adopting SINIRUBE’s algorithm for targeting new beneficiaries (or to use it at the time of benefits renewal). However, programs do not necessarily (immediately) end the provision of benefits to those who are ineligible according to the SINIRUBE metrics. Hence, targeting and focalization of programs are expected to continue to improve in the coming years.

In normal times (pre-COVID-19), Costa Rica’s national noncontributory pension program targets poor households most strongly. Figure 6.1 shows how the resources of the four biggest social assistance programs are distributed by market income decile. This distribution is established on the basis of households who report being recipients of program benefits in the ENAHO survey data. In 2021, about 45 percent of noncontributory pensions reached households in the lowest income decile. Coverage dropped quickly higher in the income distribution and was less than 15 percent for the second decile. The other programs are not as strongly targeted. While Atención a Familias distributes nearly 45 percent of its benefits to the bottom decile, the level of benefits it provides tails off more gradually across the remaining deciles. The other programs (Avancemos, Atención a Familias, and Crecemos) distribute about 25 to 30 percent of total benefits to the poorest decile.

35 In addition to SINIRUBE targeting, an effort is also ongoing by the government to centralize payment delivery under one payments platform operated by the treasury.
37 Income here is defined as gross market income plus pension before any fiscal intervention.
38 See Annex 2 for an examination of the extent to which program benefits observed in the household survey data track administrative program expenditure data.
Figure 6.1 Of the four key social assistance programs, the noncontributory pension program distributes the largest share of total benefits to households in the bottom of the income distribution.

The Bono Proteger program was less narrowly targeted and supported households throughout most of the income distribution. Figure 6.2 shows the absolute incidence of the emergency Bono Proteger program during the pandemic. As can be seen, the emergency transfers distributed through the program were targeted not only toward the lowest income deciles, but also toward other households not originally covered by social assistance. The program distributed 16 percent of funds to households in the bottom income decile. From 2019 to 2020, the other four big programs appear
to have become somewhat less focused on the poor (figure 6.1). However, as social assistance programs retained their beneficiaries during the pandemic, this pattern is likely driven by [upward and downward] movements of households across the income distribution as a result of the crisis, not by an actual change in the targeting of the program.

Figure 6.2 Distribution of Bono Proteger program benefits was less progressive than that of the other main programs

![Bar chart showing the distribution of Bono Proteger program benefits across market income deciles.](chart.png)

Source: Authors’ calculations based on ENAHO (2020).

### 6.3. Contribution of social assistance to poverty reduction

Of the four main social assistance programs, noncontributory pensions made the biggest contribution to the income of poor households before COVID-19. Figure 6.3 shows the contribution of different social assistance programs to household income, defined as the ratio of social assistance benefits to total market income. For noncontributory pensions, this ratio averaged well over 40 percent in the lowest income decile in 2021 (and higher in the years before). Accordingly, as shown in Chapter 3, poverty rates among the elderly lie below the national average and no rapid increase in poverty rates is observed as people reach retirement ages. Noncontributory pensions represented a markedly smaller share of household income in richer households; even in the second income decile, the share was only a fraction of that in the lowest decile.
The contribution to household income of social assistance programs targeted at households with children is more modest. In 2021, Avancemos and Atención a Familias made the second- and third-most significant contributions, respectively, to the income of households in the lowest income decile. These contributions represented about 18 and 25 percent of the households’ average market income. The contribution of Crecemos was smallest at about 10 percent. As can be inferred from the comparatively high poverty rates among (households with) children discussed in Chapter 3 of this report, the amounts transferred are indeed often insufficient to lift households out of poverty.

Figure 6.3 Noncontributory pensions make the largest contribution to household income of all major programs

Source: Authors’ calculations based on ENAHO (2019, 2020, 2021).
Emergency social assistance programming played a vital role during the pandemic. In 2020, Bono Proteger equaled 45 percent of market income in the lowest decile and was thus crucial for poor households during the pandemic (figure 6.4). Several other programs also acted as automatic stabilizers for poor households during the pandemic. The contribution of Avancemos as a share of household income increased from 15 to more than 27 percent. The contribution of Empleate, a program providing unemployment benefits (not further explicitly discussed in this section), increased from less than 1 to more than 10 percent.  

Both in normal times and during COVID-19, noncontributory pensions make the strongest contribution to reducing poverty and inequality of all the social programs. One way to explore the impact of social assistance programs is by comparing the current poverty and Gini rates to those that would be observed in the absence of a program (by deducting program benefits from calculated household income in the ENAHO survey data). The results of this simulation are displayed in figure 6.5. In the absence of noncontributory pensions, poverty rates would have been about 1.4 percentage points higher in 2021, whereas the poverty rate would have been about 0.6, 0.2, and 0.2 percentage points higher in the absence of Avancemos, Crecemos, and Atención a Familias, respectively. In 2021, contributions to the reduction of

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39 Apart from the three main social programs, there are other programs that have an important role on reducing poverty but are smaller on size. For instance, Empleate, launched in 2012, provides a monthly transfer to pay for training and the acquisition of multiple job skills for young unemployed people between 17 and 24 years. The program fosters job placement, human capital accumulation, and poverty reduction.

40 Note that these simulations do not account for general equilibrium effects and behavioral changes induced by the programs and should be interpreted as such.
the Gini coefficient ranged from 0.002 for Crecemos to 0.008 for noncontributory pensions. The contributions of these programs to poverty reduction were comparable during the 2020 COVID-19 crisis.

The Emergencias/Bono Proteger program had an important role in poverty reduction during 2020. Calculations of the impacts of the program on poverty reduction depend on the technical approach taken. Following Costa Rica’s national definitions and methodology for calculating poverty rates, the increase in poverty during 2020 would have been 4 percentage points higher in the absence of the Emergencias program (10 vs. 6 percentage points, the actual increase). The increase in extreme poverty would also have been 4 percentage points higher (6 vs. 2 percentage points; see also figure 6.6). However, these calculations do not account for the fact that emergency transfers were not provided during the full calendar year. If these transfers are annualized, their impact on poverty is less pronounced with an estimated impact of less than 1 percentage point, as shown in figure 6.5.

Figure 6.5 Noncontributory pensions have the strongest impact on poverty and inequality of the main social assistance programs

Source: Authors’ calculations based on ENAHO (2019, 2020, 2021).
Figure 6.6 Without additional social assistance measures, increases in (especially extreme) poverty would have been more pronounced

Panel a. Extreme poverty rate with and without mitigation measures, 2019-20 (% of population)

Panel b. Poverty rate with and without mitigation measures, 2019-20 (% of population)

Source: Authors’ calculations based on ENAHO (2019, 2020).

Box 6.3 Social assistance coverage of groups with high poverty rates

Generally, social assistance programs have higher coverage among groups with high poverty rates. Chapter 3 identified several subgroups with higher poverty rates: households with children, households headed by a single mother, Nicaraguan-migrant households, households with a head with low education, and households with a head who is not working. This box examines the coverage of the main social assistance programs across these subgroups. Figure B.6.3.1 presents data showing that the share of households receiving benefits in these subgroups exceeds the national average (the red line) by a substantial margin. As is to be expected, program coverage is associated with program targeting criteria (figure B.6.3.2). Households with a head out of the labor force (and thus potentially elderly) are more likely to receive pension payments. Households with children, especially those with single mothers, are more likely to be Avancemos beneficiaries.
Figure B.6.3.1 Overall coverage of social assistance programs is higher in poorer groups

Share of households with at least a member receiving one benefit, 2021 [%]

Source: Authors’ calculations based on ENAHO (2021).
Note: Coverage in 2021; red line is the average across the overall population.

Figure B.6.3.2 Coverage of social assistance programs tracks targeting criteria

Source: Authors’ calculations based on ENAHO (2021).
Note: Coverage in 2021; red line is the average across the overall population.
Source: Authors’ calculations based on ENAHO (2021).
Chapter 7 Climate change
High-level policy directions

- The implications of climate change will be especially pressing for the poor. Take food prices as an example: they are expected to come under upward pressure with climate change, and at present expenditure on food as a share of total consumption is already especially high in poorer households. It is therefore key for adaptation efforts to take the vulnerability of the poorest into account.

- Recent positive developments for the poor will come under pressure and will require enhanced efforts. The tourism industry, which prior to the COVID-19 pandemic had become a significant source of employment, may be affected in the longer term. Advances in public health and education will become more challenging to maintain, for instance because vector-borne diseases thrive in warmer climates while students do not.

- Effective disaster-risk management will become an increasing priority with regard to protecting the poor. Costa Rica is already facing an increase in extreme weather events induced by climate change. This trend is expected to continue with significant implications for the poor. In urban areas, for instance, the poor are more likely to live in flood-prone areas and thus be at risk from increasingly irregular precipitation and extreme rainfall events.

- There are significant opportunities for Costa Rica’s mitigation and adaptation efforts to benefit the poorest. Efforts to mitigate climate change can be designed such that they enhance labor market opportunities for low-educated workers and benefit the poorest. Policy efforts to reduce the carbon footprint of agriculture and public transport, for instance, can be beneficial to less-educated workers and reduce expenditure by the poorest. But they would need to be designed with special attention to the poorest.

- The new census will provide an opportunity to gain a better understanding of the geospatial overlap between ‘pockets’ of poverty and exposure to extreme climate events. Further analysis in this area will help to guide targeted policy efforts.

This chapter reflects on the implications of climate change for poverty and inequality in Costa Rica. Climate change, of course, is a highly complex phenomenon. Its dynamic depends on global developments well beyond the scope of this report. Moreover, efforts to mitigate and adapt to climate change are constantly evolving. The aim of this chapter is therefore not to provide a full and detailed overview of this complexity, which may well be elusive. Rather, the chapter aims to highlight a few key implications of climate change for poverty and the poor. It should be interpreted as an effort to stimulate debate on a topic that will continue to gain prominence in the coming decades.41

The chapter first discusses how Costa Rica’s climate is expected to change in the coming decades, drawing on a recent World Bank climate risk country profile. The chapter notes that Costa Rica is already experiencing the implications of climate change. Temperatures have increased over the past half century, extreme rainfall events have become more

41 Implementation of a full-fledged macro-micro simulation effort to gauge the expected impacts of climate change on poverty and inequality was beyond the scope of this poverty assessment. Implementation of this type of simulation exercise, as well as further geospatial analysis exploiting the upcoming population census, is recommended.
common, and dry spells have become longer. Extreme rainfall events are already causing substantial damage. These
trends are expected to continue and even accelerate in the foreseeable future.

The chapter then describes Costa Rica’s efforts to mitigate and adapt to climate change. Costa Rica is renowned
globally for its efforts to reduce its emissions. The country is ambitiously aiming to become the first carbon-neutral
country in the world. Costa Rica has already lowered its carbon footprint over the past decades and was one of the few
countries to regrow and expand its forest coverage. Nonetheless, achieving carbon neutrality will require significant
efforts, including strong emission reductions in the transport and agriculture sectors.

Finally, the chapter examines the implications of climate change itself and Costa Rica’s adaptation and mitigation
efforts for poverty and the poor. Accelerating climate change will affect the food security of the poor, harm the
vital tourism sector, and result in increasing damage from extreme weather events. Hard-won improvements in mul-
tidimensional poverty, including improvements in schooling outcomes, are at risk. However, Costa Rica’s adaptation
and mitigation measures may also generate valuable opportunities for the poor. Continued efforts to preserve Costa
Rica’s forests are expected to benefit the poor by creating direct economic opportunities in forestry, maintaining Costa
Rica’s status as an ecotourism hotspot, and creating the right conditions for agricultural production. Efforts to reduce
the carbon footprint of the agriculture and transport sectors can raise prices of the consumption basket of the poor, but
also generate new opportunities for less-educated workers. Social assistance will increasingly also have to serve as a
tool to offset the negative effects of climate change.

7.1. Climate change risks

This subsection describes the climate risks faced by Costa Rica. The subsection draws on a detailed, recent World
Bank climate risk country profile. The country profile notes that Costa Rica has already begun to experience the ef-
fects of climate change and increased climate variability. It describes Costa Rica as being “highly vulnerable to extreme
climate events and natural hazards […] due to the presence of populations in vulnerable areas as well as the country’s
severe risk to sea level rise (primary at-risk areas include Puerto Limón, Jaco and Puntarenas).”

Costa Rica is already experiencing an increase in temperatures and extreme rainfall events. According to analysis
of data from the World Bank’s Climate Change Knowledge Portal presented in the country profile, temperatures have
increased between 0.2 and 0.3 degrees centigrade per decade since 1960. Rising temperatures are reflected in an
increase in the number of warm days and nights (up by 2.5 and 1.7 percent, respectively) and a reduction in the num-
ber of cold days and nights. Temperature increases have been most pronounced in high-altitude areas. Heavy rainfall events have increased in intensity and dry spells between rainfall events have become longer.

**These trends are projected to continue and worsen over the coming century.** Climate projections are subject to uncertainty and depend in part on developments in global carbon emissions. The country profile reports therefore projected trends for multiple greenhouse gas emission scenarios. If global greenhouse gas emissions are not reduced at all, temperatures are expected to rise at an accelerating pace over the course of the century. By 2100, the median projection is a 3-degree centigrade increase in temperatures. The number of very hot days (temperature above 35 degrees centigrade) is expected to increase from 6 to 72. The Pacific North Region will see temperatures rise the most. Changes in rainfall patterns are harder to predict, but a decrease in rainfall is projected for the Pacific zones, while an increase is predicted for the southern zones of the country.

### Box 7.1 Vulnerability and resilience to climate change

The Notre Dame Global Adaptation Initiative (ND-GAIN) Index ranks countries on their vulnerability and resilience to climate change and other global challenges. The index “shows a country’s current vulnerability to climate disruptions. It also assesses a country’s readiness to leverage private and public sector investment for adaptive actions” (Chen et al. 2015). The index is based on 45 core indicators and is computed for 192 UN countries. The most updated version of the index covers the period 1995–2019. For each country, the index assesses the vulnerability of six sectors (food, water, health, ecosystem services, human habitat, and infrastructure) in terms of three dimensions: exposure, sensitivity, and adaptive capacity. Readiness is measured by considering three components: economic readiness (one indicator), governance readiness (four indicators), and social readiness (four indicators).

**Costa Rica’s ND-GAIN score improved over the last decade.** From 1995 to 2007 the index oscillated between 50 and 51 points. In the period from 2007 to 2019, the ND-GAIN for Costa Rica showed an upward trend, reaching 54.9 points in 2019. This progress was explained mainly by an improvement in the readiness index—largely in the ICT infrastructure and the education subindices, which also drove reductions in multidimensional poverty (see section 3.4)—and a slight reduction of the vulnerability index. In other words, although Costa Rica is almost as exposed as climate shock as it was in the past, its social readiness has improved.
In 2019, Costa Rica was one of the best performers in Latin America and the Caribbean, but remained among those at the bottom of OECD countries. Costa Rica is in a better position than most of the countries in the region, because it has a lower vulnerability index and higher readiness index. Although some OECD countries have a higher vulnerability index than Costa Rica, almost all of them have a higher readiness index. This means that Costa Rica could improve its readiness to adapt its economy to climate challenges, as other OECD countries have already done.
Figure B.7.1.2 Costa Rica’s resilience to climate change compares favorably in the region, but not with OECD peers

ND-GAIN Index in OECD and LAC countries, 2019

Source: Authors’ representation based on ND-GAIN (2019).

Source:

The implications of increasing temperatures and changes in precipitation for Costa Rica will be wide-ranging. As described in the World Bank’s climate risk country profile for Costa Rica, “rising temperatures and extreme heat conditions will result in significant implications for human health, agriculture, water resources, tourism, and ecosystems.”43 Climate change will lead to altered growing seasons with crop-specific implications. Key production crops such as coffee, beans, and bananas will be negatively affected, but some other crops may be favored by changing climatological conditions.44 Drying could have significant implications for drinking water and the agro-food sector (responsible for 90 percent of water concessions). Changing rainfall patterns and extreme weather events can affect hydroelectric

powerplants, a key part of Costa Rica’s ambition of 100 percent renewable energy generation. Finally, climate change poses risks to Costa Rica’s natural riches with possible ramifications for ecotourism.

**Increasing temperatures and changes in rainfall patterns also come with increased risks of extreme-weather-induced disasters.** The Ministry of National Planning and Economic Policy (Ministerio de Planificación Nacional y Política Económica, MIDEPLAN) estimated that in the period from 1988 to 2018, hydrometeorological events led to over US$3 billion (in 2015 US$ prices) in damage, especially to road infrastructure. Most of this damage was inflicted by heavy rains, with rural areas being hit especially hard (see figure 7.1 below). These costs are expected to increase. Flooding is expected to pose an increasingly greater challenge: riverine floods in the north of the country, coastal floods due to a rise in sea levels, and rainfall-induced flooding. Costa Rica’s greater metropolitan area is of special concern and land use planning and disaster risk management are critical priorities. Other risks include tropical storms and cyclones on the Caribbean coast and droughts in the Northern and North Pacific zones.

Figure 7.1 Heavy rainfall events are already causing significant damage, especially to road infrastructure in rural areas

Source: Authors’ representation based on MIDEPLAN (2019).

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Box 7.2 Coffee production and climate change

Coffee is one of the key crops that will be heavily affected by climate change. Coffee production plays a crucial role in Costa Rica for many reasons. It is closely linked to the national identity around 150,000 people work for this industry during the harvest time (Obando-Vargas and Obando-Vargas, 2020). However, it is one of the higher-emission agriculture sectors. The implications of climate change for coffee production in Costa Rica were recently described in a special by the Tico Times. The article relates that, over the past decade, the country’s 44,000 coffee growers have already been heavily affected by increasing temperatures, rainfall volatility, and the coffee berry borer. This “perfect storm” led to a reduction in coffee production of about 44 percent. Moreover, increased climate volatility is already leading to years of over- and undersupply, accompanied by strong price fluctuations. In years of low prices, the incomes of coffee producers come under significant strain.

There are opportunities to protect and support coffee production. As discussed in the Tico Times article, these include halting deforestation to avoid erosion and reduce the risk of flooding, planting trees near coffee crops to reduce exposure to the sun, and engaging in traditional farming methods that protect biodiversity and reduce the risks of pests. Moreover, alliances and collective bargaining processes can be used by smaller farmers to drive down the costs of production inputs and obtain fair and stable prices. Efforts to limit the effects of climate change on the coffee industry are already on the way. Costa Rica developed and implemented the Nationally Appropriate Mitigation Action (NAMA) plan for coffee production—the first in the world. NAMA Café aims to reduce greenhouse gases emissions and improve the efficiency in the usage of resources. The plan’s main objectives are (a) to reduce the usage of fertilizers, (b) to use water and energy in the most efficient way to process coffee, (c) to promote financial mechanisms to support new agroforest systems in coffee production, (d) to conduct audits to determine the carbon footprint, (e) to develop strategies to promote differentiated coffee, and (f) to assess the feasibility and design projects to implement low-emissions technologies. With international financial and technical support (see GIZ 2020), efforts to reduce the emissions of the coffee sector have included 8,900 producers, covering up to 25,000 hectares of coffee plantations. As a result, in 2020, 22 percent of coffee production was carried out in a sustainable way, and emissions of CO2 equivalent had been reduced by about 60,000 tons.

Sources:
7.2. Adaptation and mitigation efforts

Costa Rica ambitiously aims to decarbonize its economy and achieve net-zero emissions by 2050. In the words of President Alvarado Quesada, “Costa Rica must be among the first countries in the world to achieve it [decarbonization], if not the first.” Costa Ricans broadly appear to agree with this aim. According to the Climate Change National Survey (2021), four out of five Costa Ricans think that the president and the congress should consider climate change to be a priority, and 90 percent agrees that the economic recovery after COVID-19 should include climate actions. Two out of every three Costa Ricans are highly concerned about climate change. According to 72 percent of Costa Ricans, climate change is already affecting the country and 78 percent believe that it will severely harm future generations. While many Costa Ricans already take climate related actions—such as separating residuals, reducing the usage of private transport or consumption of products with a large climate footprint—almost two out of three consider these actions to be insufficient to address climate change. Hence, collective mitigating action is needed.

Costa Rica has already made progress in reducing net greenhouse gasses emissions in the last decades. Based on the guidelines of the Intergovernmental Panel on Climate Change (IPCC), the National Meteorological Institute – Ministry of Environment and Energy (2021) prepared a greenhouse gas inventory for the period 1990–2017. According to this inventory, CO₂ equivalent emissions fell by 70 percent during this period, from about 37,300 to about 11,500 gigagrams, mainly driven by forestry and other land uses (FOLU), the emissions of which went from almost 30,000 gigagrams to a negative net contribution of about 3,000 gigagrams. Emissions from agriculture were also reduced by about 20 percent. However, if FOLU is excluded, emissions increased by 176.1 percent, from about 8,200 to about 14,500 gigagrams, primarily due to the transport sector. Excluding FOLU, transport was responsible for about 42 percent of total emissions in 2017, followed by agriculture (20.5 percent), residuals (14.8 percent), energy in other sectors (13.6 percent) and industrial processes and product use (9.6 percent) (figure 7.2). Emissions from energy use in other sectors are mainly produced the manufacturing and construction industries’ burning of fuel for their own operations, not from the electrical system itself, the emissions of which are limited, because Costa Rica’s electrical system is almost entirely (99 percent) based on renewable energy. Land transport was responsible for almost all emissions (95.8 percent) of the transport sector in 2017. Private cars and motorcycles produce around half of these emissions. The other half is distributed almost equally between light and heavy freight. The fleet of vehicles tripled in the last three decades, mainly driven by private sector. The fleet is old, with an average of 15 years.


Further reductions in greenhouse gas emissions will require significant efforts. According to Rivera, Obando, and Sancho (2015), emissions are expected to grow by 2.4 percent annually without additional measures. Costa Rica’s National Decarbonization Plan (NDP) provides a roadmap for further reductions in greenhouse gas emissions. Recognizing that action is urgent, the plan identifies priority actions, specifically transformation of the transport sector, including through the promotion of electricity-powered transportation; reducing the environmental footprint of the agriculture sector, through use of technological innovations and improved land management; electrification of the economy, including sectors other than transport; avoiding adoption of new technologies that will not be consistent with achieving net-zero emissions; and comprehensive tax reforms that support and promote sustainable development. As part of its decarbonization agenda, Costa Rica is implementing carbon pricing through the development of a domestic carbon market mechanism.

Costa Rica has articulated a comprehensive strategy for adapting to climate change. The strategy is set out in the National Climate Change Adaptation Policy (2018–2030). The policy outlines six key priority areas for future action. The first is the generation of robust and reliable information on climate change and the capacity of local and national institutions to use this information in policy decisions. The second is the enhancement of the resilience of society to climate change, including through incorporation of a climate perspective in plans at the community, regional, and sector levels. The third is the reduction of the vulnerability of water basins, ecosystems, biodiversity, and marine and coastal systems. The fourth is the enhancement of the resilience of infrastructure to guarantee the provision of public services, such as energy, telecom, water, health, education, and transport. The fifth is the transformation of productive sectors to guarantee their business continuity. The sixth and final is the making available of public and private financial resources to fund climate action.

Disaster risk management is a high priority for Costa Rica. The country’s strategy is outlined in its detailed national disaster risk management policy 2016–2030. Key aspects of this strategy include enhancement of resilience and social inclusion, decentralization of disaster risk management, education and innovation, sustainable investment in infrastructure and services, and planning to lower risk exposure. The national disaster risk management policy 2016–2030 describes the management and implementation of this strategy in ample detail.

7.3. Implications for poverty and the poor

7.3.1. The implications of a changing climate

Climate change-induced reductions in agricultural output may affect the ability of the poor to meet their food needs. A recent report of the Inter-American Development Bank indicates that reductions in yields and areas suitable to production could lead to increased food insecurity in Latin America and the Caribbean. It warns that Central America, among other subregions, “will face substantial difficulties.” The exact implications of climate change-induced changes in

agricultural output will depend on a wide variety of factors, including international trade flows in food crops, adaptation measures adopted by farmers, and the share of net sellers/producers in the country. Implications are also likely to differ for urban and rural areas. Nonetheless, poorer segments of the population in Costa Rica are clearly exposed to increases in food prices. Figure 7.3 depicts expenditures on food and nonalcoholic beverages as a share of total consumption by income quintile (calculated based on the 2018 National Incomes and Expenditures Survey). It shows that nearly 40 percent of the consumption basket of the poorest quintile falls within this category. Exposure of richer households is less pronounced; expenditure on food and nonalcoholic beverages as a share of total consumption comes in below 25 percent in the richest two quintiles.

Figure 7.3 Poorer households are more exposed to increases in prices of food products

Source: Authors’ calculations based on ENIGH (2018).

Tourism, one of the key sectors driving exports and economic growth, could be heavily affected by climate change. Costa Rica is renowned for its geographic variation and biodiversity—the country is home to about 5 percent of the world’s biodiversity—which make it a prime destination for ecotourism. More than a quarter of Costa Rica’s land mass is under protection and Costa Rica is one of the few countries that have expanded its forest coverage over past decades. Climate change poses risks to Costa Rica’s natural riches with possible ramifications for ecotourism and thus the less-educated workers in the hospitality sector.

Irregular precipitation and heavy rainfall events could have increasingly important implications for the poor in urban areas. Currently, about four in five Costa Ricans live in urban areas, with roughly half of the urban population residing in the metropolitan area of the capital San José. In addition, the share of the population living in urban areas...
is expected to rise to 9 in 10 by 2050. By sheer virtue of this distribution, poverty is becoming an increasingly urban phenomenon (as discussed in Chapter 3, about 7 in 10 poor Costa Ricans already reside in urban areas). Higher food prices due to the negative implications of climate change pose a significant risk. Moreover, as indicated in the World Bank’s climate risk country profile for Costa Rica, localized flooding events are expected to become an important climate change-induced hazard for the urban poor (especially in the San José metropolitan area). The urban poor may not only be at direct risk of flooding, but may also be indirectly affected through damage to water and sanitation systems. Limited urban planning and urban sprawl will contribute to these phenomena.

**Climate change is expected to have significant implications for education and health that may undo advances in multidimensional poverty.** As discussed in Chapter 3, Costa Rica has achieved rapid progress in reducing multidimensional poverty. This reduction was in large part driven by improvements in education and (to a lesser extent) health outcomes. Climate change will put these advances under pressure. Increasing temperatures are expected to have negative implications for education attainment. A recent study examines the relationship between climate change and educational attainment in the global tropics, and points to the potential deleterious effect of increasing temperatures on years of schooling completed. Similarly, climate change is widely expected to have significant implications for public health. Vulnerable groups, such as the elderly, can be significantly affected by high temperatures and heatwaves in and of themselves. Moreover, with rising temperatures the prevalence and impact of infectious diseases (especially those that are vector borne) are expected to increase in tropical areas. A wide range of neglected tropical diseases is “likely encroach on regions and populations that have been previously unaffected.”

**There is geospatial variation in the exposure of the poor to extreme climate events and regarding the need for disaster preparedness.** The implications of climate change are projected to differ markedly across Costa Rica’s climatic zones. The lack of the ability to geospatially disaggregate the current poverty data implies that it is challenging to determine the overlap between poverty and exposure to extreme climate events. Data from the upcoming census will provide a new opportunity to explore this overlap and guide disaster risk management policy.

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7.3.2. The implications of Costa Rica’s adaptation and mitigation measures

Efforts to preserve Costa Rica’s forests are expected to have continued positive implications for the poor. Forest conservation has not only contributed to the reduction of Costa Rica’s carbon footprint. It has also played a key role in the development of Costa Rica’s (eco-)tourism sector, which has been and continues to be a relevant source of employment for workers with lower levels of education [see section 5.1]. Moreover, forests and trees are considered crucial for the creation of the right conditions for agricultural production. Indeed, the United Nations’ Food and Agriculture Organization argues that “trees planted near agricultural land offer many environmental benefits: they provide simile, reduce erosion, increase soil fertility, lower water tables, lessen the risks of salinization, and help stabilize water supplies.” As such, preservation efforts contribute to employment opportunities in agriculture, a major source of jobs for those in the lower income deciles [see figure 7.4 below]. Moreover, subsidies to compensate those who engage in the preservation of forest lands provide an income-generation opportunity in rural areas of the country with high poverty rates [see section 3.2].

It is possible to design mitigation and adaptation strategies such that they integrate structurally disadvantaged groups. Take the example of including women in antideforestation initiatives. In 2019, Costa Rica developed a gender action plan as part of its strategy to address deforestation and forest degradation. The plan brings together two priority topics for the country: the enhancement of sustainable development and the reduction of gender gaps in economic opportunities. Analysis carried out as part of the development of the plan highlighted that many farms operated by women are in priority zones for forest conservation and ecosystem restoration. Moreover, many of these zones are characterized by comparatively high rates of poverty. Hence, there are opportunities to support women’s income-generating opportunities in these areas through efforts that simultaneously support conservation and restoration efforts. (Think of ecotourism and low-carbon agroforestry.) The gender action plan can be seen as an example for future efforts to develop responses to multiple critical development challenges simultaneously and achieve Costa Rica’s ambitious decarbonization strategy.

Measures to reduce the carbon footprint of the agriculture sector can have important implications for the poor, both positive and negative. More than one in five workers in the bottom two income quintiles are employed in agriculture. (These include workers engaged in heavy-emission activities, such as cattle rearing, and workers engaged in

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58 Forest conservation efforts also open opportunities for the sustainable exploitation of forest products.


Efforts to lower emissions of the agriculture sector could thus have direct implications for many workers in the lower income quintiles. As mentioned above, measures considered by the government include technological innovations and improved land management. To the extent that technological solutions would displace less-educated workers, the implications could be significant. To the extent that these solutions will generate new opportunities for these workers to gain new skills, they can directly benefit the poor.61

**Figure 7.4 Agriculture is a major source of employment lower in the income distribution (2021)**

Reforms to reduce the carbon footprint of the transport sector can be a boon or bane for the poor. As mentioned in the previous subsection, transport was responsible for over 40 percent of emissions in 2017. Reducing the emissions of transport is thus an immediate priority. However, efforts to lower the carbon footprint of the transport sector may have both direct and indirect implications for the poor. Currently, the poor spend a bit over 5 percent of their total consumption on transport (figure 7.5). Most of this expenditure is on public transport. Efforts to ‘green’ public transport, including ongoing replacement of buses with combustion engines with buses with electrical engines for instance, could benefit the poor if they result in improved service and lower fares. However, investments in green public transport recuperated through increased fares may well leave the poor worse off. Similarly, efforts to reduce the carbon footprint of freight transport may affect the poor to the extent that they lead to price increases down the production chain. Also, as shown in figure 7.5, a non-negligible share of workers lower in the income distribution works in transport; hence, efforts to green the transport sector may affect the poor through labor market income as well.

Costa Rica’s social assistance system will play an increasingly important role in addressing the effects of climate change. Social assistance will be a key tool to support those who are at risk of falling into poverty due to advancing climate change, to enhance the resilience of households to a changing environment, and to provide immediate aid to those who are affected by climate change-induced extreme weather events. However, the country’s social programs are not currently tailored to the objective of offsetting the negative effects of climate change. Adaptation of targeting criteria may be needed. Costa Rica’s Bono Proteger emergency program provides a learning opportunity in this respect. It played a significant role during the COVID-19 pandemic and will provide helpful experience on which to draw in the development of agile programs to support households affected by increasingly common natural disasters such as floods in urban areas.

More general lessons are also emerging on how social protection and social assistance can be part of climate change adaptation and mitigation efforts. An [as of yet unpublished] tool kit recently developed by the World Bank provides some insight into this. It discusses the use of social assistance to enhance household resilience and income security to lower the impact of shocks, for instance through regular income transfers. Livelihoods and inclusion interventions can be part of a strategy to enhance both household resilience and reallocation of workers to lower-emission

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Source: Authors’ calculations based on ENIGH (2018).
sectors. Conditions tied to social assistance can be designed such that they contribute to mitigation efforts (think of conditions tied to conservation). Efforts can be made to ensure that data, financing, and institutional arrangements are in place for a rapid and adequate social assistance response in the face of a major weather event (or other shock). Redistribution of resources can be considered to compensate the poor when they are affected by mitigation efforts. Finally, digitization of social assistance programs can help to lower their carbon footprint.
Annex 1 Background on gender

Costa Rica compares favorably to other countries in the region in terms of some aspects of sexual and reproductive health. However, data gaps limit the monitoring of progress on eliminating violence against women. A recent World Bank report examines gender gaps in Latin America and the Caribbean. It highlights that in some aspects of sexual and reproductive health, Costa Rica compares favorably to other countries in the region. Maternal mortality rates, for instance, are among the lowest in the region and only five countries in the region have lower teenage pregnancy rates (Costa Rica has an adolescent fertility rate of 53 per 1,000 women). UN Women notes that Costa Rica has over 80 percent of the legal framework in place to address violence against women. However, it cautions that crucial gender data gaps hinder monitoring of progress. For instance, the latest figures on the prevalence of violence against women date from 2008. According to those (dated) figures, 7.8 percent of ever-partnered women ages 18–69 years had experienced intimate partner physical and/or sexual violence in the last 12 months.

Costa Rica performs strongly on the World Economic Forum’s (WEF) Global Gender Gap Index, with the important exception of outcomes related to women’s economic participation. It ranks 15th globally on the Gender Gap Index and 2nd in Latin America and the Caribbean. The country performs especially well on the WEF’s Political Empowerment subindex, on which it ranks 8th globally. However, it has much ground to gain in the WEF’s Economic Participation subindex, on which it ranks 140th globally. It falls outside the top 100 globally in terms of women’s labor force participation, wage equality for similar work, and percentage of female professional and technical workers. This poverty assessment indeed confirms the disadvantaged position of women in the labor market.

There is still room for improvement in the legal framework underpinning women’s position in society and the labor market. The World Bank’s Women, Business, and the Law Index examines legal indicators within eight domains, as displayed in figure A.1.1 below. On average Costa Rica’s legal framework compares somewhat favorably to that of other countries in the region. It achieves a full score in the domains of mobility, workplace, marriage, assets, and pensions, implying legal parity with men in terms of the indicators examined within these domains. However, there is clearly room for improvement in the domains of pay, parenthood, and entrepreneurship. In these domains, Costa Rica scores below the regional average. Costa Rica does not have a law that mandates equal remuneration for work of equal value. Women cannot work in jobs that are deemed dangerous in the same way as men. There are limitations in legal arrangements related to government payment for maternity and paternity leave and there is no law prohibiting discrimination in access to credit based on gender.

64 See the UN Women website: https://data.unwomen.org/country/costa-rica.
65 See the World Economic Forum website: https://www.weforum.org/reports/ab6795a1-960c-42b2-b3d5-587eccda6023.
Figure A.1.1 Costa Rica’s performance in eight legal domains

Costa Rica - Latin American & Caribbean - World Comparison [2021]

This appendix examines the extent to which the findings presented in this report are sensitive to the source of data used in the analysis. The analysis presented in this report is based primarily on the ENAHO—a comprehensive annual multipurpose survey administered by Costa Rica’s national statistics institute. In 2019 the ENAHO covered well over 13,000 households and was representative at the national, urban/rural, and regional levels. The accuracy of the findings presented in this report hinge crucially on the reliability of the ENAHO. There are some possibilities to explore concerning whether the findings of the analysis are sensitive and change when using different data sources.

One source of data that can be used to examine the sensitivity of the findings presented in this report is the Labor Force Survey (LFS; in Spanish, Encuesta Continua de Empleo, ECE). The LFS is a representative but more focused survey specifically concerned with labor market outcomes. Table A.2.1 compares the main features of the LFS and the ENAHO. In 2019, the sample of the LFS was somewhat smaller than that of the ENAHO and there were some differences in data collection modalities. For instance, the LFS relies on digital data collection while the ENAHO was administered through a printed questionnaire. However, the questions on the basis of which labor market outcomes are determined allow for direct comparisons.

Table A.2.1 Main features of the labor force survey and the ENAHO

<table>
<thead>
<tr>
<th></th>
<th>Labor Force Survey (ECE)</th>
<th>Household Survey (ENAHO)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of survey</strong></td>
<td>Labor market survey</td>
<td>Multipurpose survey</td>
</tr>
<tr>
<td><strong>Sample</strong></td>
<td>9,024 households</td>
<td>13,400 households</td>
</tr>
<tr>
<td>Its size and distribution are defined based on different variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Representativeness</strong></td>
<td>Country and rural/urban areas</td>
<td>Country, rural/urban areas, planification regions</td>
</tr>
<tr>
<td><strong>Collection</strong></td>
<td>Continuous throughout the year. Results refer to each quarter</td>
<td>July of each year</td>
</tr>
<tr>
<td>Simultaneous</td>
<td>In stages [Central region first]</td>
<td></td>
</tr>
<tr>
<td>Digital devices</td>
<td>Printed questionnaire</td>
<td></td>
</tr>
<tr>
<td><strong>Labor status</strong></td>
<td>Same conceptual frame and same questionnaire</td>
<td></td>
</tr>
<tr>
<td><strong>Incomes</strong></td>
<td>Only labor income</td>
<td>All sources of income</td>
</tr>
</tbody>
</table>

*Source: Authors’ elaboration.*
While the ENAHO and LFS data track each other quite closely, some qualitative differences can be observed. As can be seen at the top of figure A.2.1, there is fairly strong co-movement in the LFS and ENAHO estimates of the economically active, employed, and unemployed population. However, some periods of divergence can also be observed, including for the economically active population in 2019, which is notably higher in the LFS than the ENAHO. The graphs also show the value of higher-frequency data during periods of volatility (the LFS is published quarterly and the ENAHO annually). In contrast, the ENAHO data provide a more stable picture helpful for understanding longer-term trends. For instance, while the labor force participation and employment rate measured by the LFS are volatile, the ENAHO shows a more consistent trend over time.

Figure A.2.1 Comparison of LFS and ENAHO data
Administrative data provide another opportunity to assess the sensitivity of the findings presented in this report.

The first column of table A.2.2 below shows the total value of benefits provided by key social assistance programs explored in Chapter 6 of this report. The second column shows the estimated expenditure on these same program benefits according to the ENAHO data. The third column shows estimated expenditure as a percentage of actual expenditure.

Source: Authors’ calculations based on ENAHO (2010-21) and LFS (2010–21).
For Crecemos the actual and estimated expenditure coincide quite closely. The value of Crecemos transfers equals 103 percent of the actual value of Crecemos according to administrative data. Differences are observed for the other programs. The difference is most notable for Atención a Familias, which is clearly underreported in the ENAHO.

Table A.2.2 Comparison of social assistance expenditures in administrative records and the ENAHO

<table>
<thead>
<tr>
<th>Program</th>
<th>Administrative data 2019</th>
<th>ENAHO 2019</th>
<th>Corresponding %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total expenditure 2019</td>
<td>Total expenditure 2019</td>
<td>Corresponding %</td>
</tr>
<tr>
<td>RNC</td>
<td>$139,519,108</td>
<td>$154,312,926</td>
<td>110.6%</td>
</tr>
<tr>
<td>Avancemos</td>
<td>$73,371,667</td>
<td>$60,979,392</td>
<td>83.1%</td>
</tr>
<tr>
<td>Emergencias</td>
<td>$752,545</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crecemos + FONABE</td>
<td>$50,105,198</td>
<td>$51,392,805</td>
<td>102.6%</td>
</tr>
<tr>
<td>Atención a Familias (IMAS)</td>
<td>$61,032,945</td>
<td>$41,081,767</td>
<td>67.3%</td>
</tr>
</tbody>
</table>