

# Analysis of Unemployment in Chimborazo Post Pandemic

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## Abstracts

This is a literature review study, of unemployment which is widespread in today's societies, where individuals with work capacity, find themselves without employment activity due to a lack of opportunities or simply because they cannot find a job. The research aims to learn and understand the causes of unemployment and underemployment in Ecuador, particularly in the Province of Chimborazo during the years 2021-2022. To achieve this we have relied on the collection of statistical data and its subsequent analysis, interpretation, judgment, and prospection, which provides a base tool for decision-making, as well as for academic and business deepening.

**Keywords:** unemployment, employment, work.

## Introduction

Unemployment is a problem that affects many regions worldwide, including the province of Chimborazo in Ecuador. It is important to examine how unemployment impacts this region and what are the possible solutions to mitigate its negative effects, through the analysis of current unemployment statistics in the province of Chimborazo, as well as its direct and indirect causes. According to the National Institute of Statistics and Censuses (INEC by its acronym in Spanish), the unemployment rate in the province of Chimborazo was 6.8% in the last quarter of 2021. This rate represents a 1.5% increase compared to the same period the previous year. Furthermore, it is estimated that over 60% of the unemployed individuals are young people under the age of 30. According to the INEC (2021), a projected unemployment rate of 6.2% was anticipated for the year 2022, indicating a slight decrease but still one of the highest in the country and Latin America, which undoubtedly lead us to reflection and our leaders to take concrete actions to alleviate its impact on the most vulnerable population.

The National Government of Ecuador, has implemented lukewarm actions to reduce unemployment through the approval of part-time and hourly employment modalities, its approach is managed at the will and interests of the private sector, which has not proven entirely beneficial, because in many cases, the same personnel has been hired, but under different modalities, when what is sought is the hiring of more personnel. Additionally, it is necessary to mention that the public sector (previously the major employer of occasional personnel for executed projects), has not shown an increase in hiring, because the public works such as: roads, housing solutions, bridges, and major projects have been almost non-existent in the two years of Guillermo Lasso's government administration.

One of the main causes contributing to the increase in unemployment in the province of Chimborazo is the lack of investment in the region. Often, entrepreneurs prefer to invest in larger cities, such as Quito or Guayaquil, rather than in smaller and less developed regions. As a result, the province of Chimborazo has fewer job opportunities available, and even though current politicians may promise to create a National Producers Market in Riobamba or the Municipal Bank, these political offers which lack any technical support, do not contribute to reduce the problem, and surely, they cannot be executed.

For many, Chimborazo and its capital Riobamba, have a privileged location being just two and a half hours from Quito and three and a half hours from Guayaquil, however, this competitive advantage cannot be fully leveraged due to a complete neglect of non-concessioned roads, such as the Riobamba – Cuenca and Riobamba – Guayaquil routes, additionally we are one of the provinces with the highest percentage of indigenous population and facing the constant threats of indigenous protests and subsequent roadblocks, caused that the few large companies in our province have redirected their business perspectives towards other development poles, such as the main port (Guayaquil) and the country's capital (Quito).

In Chimborazo, the lack of job skills among young people leaving school who have not developed the necessary abilities to compete in the job market becomes one of the most significant causes of this negative phenomenon in the country. Additionally, the majority of available jobs in the province require specialized skills, further limiting employment opportunities for the youth. In the country, during the year 2022, more than 200.000 young individuals left Ecuador between the ages of 18 and 35, which is the most physically productive and capable age range in one person, the reasons for this youth migration include language studies or specializing in a master's degree, and the second most important reason is to seek employment and improve economic and financial conditions of their own and their families. Unemployment is a significant social and economic issue affecting individuals, families, and communities worldwide. When the unemployment rate is high, it leads to negative consequences for the economic and social development of a province, region, and country.

Therefore, unemployment in our province and in the region, is a social and economic problem with negative effects on the development of its inhabitants. It is important for governments and communities to work together to implement policies and programs that promote employment and economic growth, and provide support and resources for those who are unemployed. Unemployment fosters negative effects on the economic development of the province of Chimborazo, when there is a high level of unemployment, people have less disposable income

to spend on goods and services, reducing the demand for products and negatively impacting local businesses. Additionally, unemployment limits the capacity to generate employment and attract investment. For this reason, there is a decrease in foreign investment in the country. The lack of investment has led to a reduction in job offer, especially in sectors such as construction and manufacturing industry.

However, it is important to consider that the unemployment rate is just one of the many factors that affect the economic development of a province. Other important factors include the quality of education, infrastructure, public and private investment, political stability, and other economic and social factors.

According to the National Institute of Statistics and Censuses of Ecuador (INEC), the unemployment rate in the province of Chimborazo in the fourth quarter of 2021 was 7,9%. This cipher is higher than the national unemployment rate, which stood at 7,6% during the same period. In the year 2022, the unemployment rate slightly decreased to an average of 6,5% in the urban sector, and in the province it was 5,6% thus indicating economic recovery in the country, albeit not sufficient. (see Figure 1)

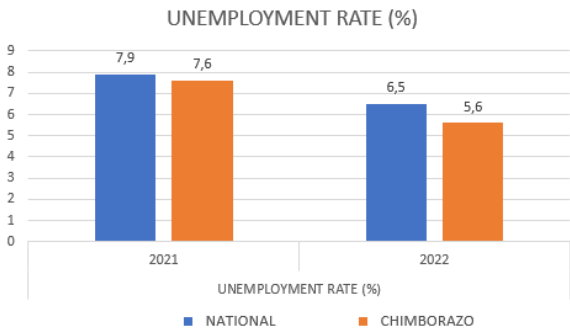


Figure 1. Comparison 2021 and 2022.

Source: INEC, 2021.

These ciphers summarize the labor situation in the country and the province, where employment is considered one of the most relevant issues worldwide, and Ecuador is no exception. The employment situation in Ecuador has been historically precarious, with high rates of informality and underemployment, experiencing a further increase due to the COVID-19 pandemic.

In the specific case of the province of Chimborazo, located in the Sierra region of the country, the scenario is not very different. According to the National Institute of Statistics and Censuses (INEC), the unemployment rate in the province of Chimborazo was 6,9% in September 2021, representing an increase of 2,2% compared to the same period the previous year. This means that there are approximately 24.000 people in the province who are unemployed. However, despite the discouraging figures, there are some positive prospects for employment in Ecuador and particularly in Chimborazo. One of them is the economic growth expected for the country in the

coming years. According to the Central Bank of Ecuador, the good performance of the economy in the third quarter has led to an annual Gross Domestic Product (GDP) growth of 2,9%, in 2022.

This increase in Gross Domestic Product (GDP) in the third quarter of the year is attributed to improved performance in indicators, such as household consumption, which rose by 3.8%. Government spending, which experienced a 2% increase. Investment, known as gross fixed capital formation (GFCF), which grew by 1%.

By the year 2023, the same source projects an average economic growth of 3,2%, which would serve as an incentive to gradually reduce unemployment and all the consequent problems it brings. It is worth to be noted that, the Ecuadorian economy is experiencing a gradual recovery after the impacts of the pandemic, this could generate more jobs in some sectors, such as construction, trade, and services.

Another positive perspective is the investment in infrastructure and development projects currently taking place in the province of Chimborazo. For example, the construction of a hydroelectric power plant in the area is underway, which could generate approximately 3.000 direct and indirect jobs during its construction and operation.

Furthermore, the Ecuadorian government has implemented various policies to boost employment and formal labor in the country. Among them is the "Youth Employment" program, aimed at providing job opportunities for youths between 18 and 29 years old, and the "My First Job" program offers tax incentives to companies hiring young individuals without prior work experience. Although the focus of these initiatives is on large cities, the outcomes also have an impact on the commercial sector in Chimborazo.

Regarding the training of workers, the government has implemented various initiatives to enhance the training and skills of the country's workforce. For instance, the "National System of Qualifications and Professional Training" has been established, which aims to improve the quality of technical and professional training in the country and adapt it for the needs of the labor market.

We must also mention that the Government of Ecuador has implemented an economic recovery plan that includes measures to promote job creation. One of the most prominent programs is "Reactivate Ecuador," which aims to boost economic recovery through job generation and support for small and medium-sized enterprises. After the pandemic and its passage through Ecuador, as in many other countries, the labor situation was affected by various factors in recent years, including the economic and political situation of the country and the lack of job opportunities in some sectors. However, there are some positive outlooks for the future of employment at both the national and local levels. Thus, the Ecuadorian government has implemented policies to promote employment in the country, such as the "Plan Toda una Vida," which seeks to encourage entrepreneurship and the creation of small and medium-sized enterprises. Additionally, investment projects in infrastructure and energy have been promoted, which could generate employment in sectors such as construction and engineering, however the magnitude of these projects has not been a driving force for growth but rather a relief measure, not curing the problem generated by unemployment and COVID-19.

As the province of Chimborazo is located in the central region of Ecuador, there exist employment opportunities in sectors such as agriculture, cattle raising, and tourism. This area is renowned for its rich biodiversity and for being home of the “Kichwa” indigenous community, making it a magnet for tourists eager to explore their culture and traditions, however, the impact on employment is minimal due to the lack of maintenance and improvement on the roads leading to the provincial capital and its districts, as a result the conditions of the routes to the coast and the southern region are precarious.

Although Chimborazo has some ongoing projects that could generate employment in the region, such as the construction of the Mazar-Dudas dam and the expansion of the Riobamba-Ambato highway. These initiatives require local labor and create jobs in sectors like construction and engineering. The drawback is that, to cover the 24.000 jobs needed in the province, the 500 jobs generated by these two projects are insufficient.

Facing the employment panorama in Chimborazo and in Ecuador in general involves several challenges. One of them is the lack of training and education for many workers, limiting their chances of accessing better-paying jobs and improved working conditions. Additionally, informal employment remains a problem in the country, making it difficult to protect the labor rights and social security of workers.

In this mentioned context, the employment situation in Ecuador and in Chimborazo remains precarious, there are some positive prospects that can boost job creation in the country. It is necessary to continue working on policies that promote formal employment, worker training, and investment in development projects that generate employment in the region.

Part of the unemployment analysis also involves examining the factors that directly and indirectly influence its growth or decline, one of the factors that have contributed to this increase is the economic slowdown experienced by the country during that period. The Ecuadorian economy has faced a series of challenges, such as the drop in oil prices, political crises, the war between Russia and Ukraine, and other factors that significantly impact it, which has led to a decrease in foreign investment and a decline in national production. This situation has generated a reduction in employment sectors such as construction, manufacturing industry, and trade.

The construction industry sector (El Comercio newspaper, 2022) lost a total of 85.106 jobs between December 2021 and June 2022. Leopoldo Ocampo, the president of the Chamber of Construction Industry explained that the crisis affecting the sector is due to the government of Guillermo Lasso's low investment in public works, with to consequences in the construction sector since 2019, impeding the creation of new job opportunities. According to data from the Ministry of Finance, public investment in 2022 is only USD 509 million. On the other hand, in 2021 it was USD 1.871 million. A loss of USD 1.362 million and ten thousand of jobs in this sector affected by the lack of support of public construction. According to the Central Bank of Ecuador, the employment ciphers grew by 0,1% in 2021. Ocampo attributes this minimal improvement to private sector investment. "The 80% of the construction sector relies on public works and only 20% coming from the private sector, namely, real estate." Formal employment in this sector is at 56% and unemployment at 8%, 36% work under suboptimal conditions.

For the majority of Ecuadorians, the lack of employment is the main concern. The Encounter Government has just over two years left to solve the country's critical situation and to fulfill its promise of creating hundreds of thousands of jobs for Ecuadorians, as of March 2023, we have a government much more preoccupied with its political situation and deteriorating image, than an organized governmental entity with growth prospects. Another factor contributing to the growth of unemployment in Ecuador is the lack of training and education among workers. Many of the available jobs in the country require specific skills, such as proficiency in technological tools, which many workers do not possess, leading to difficulties in obtaining employment. Furthermore, the lack of training and education also limits opportunities job promotion and the possibility to get access in higher-paying jobs.

The government in order to fulfill the right to training for Ecuadorians maintains various institutions such as: SECAP, since 1966 coordinated by the Ministry of Labor Relations (MRL by its acronym in Spanish), with the objective of training the most vulnerable sectors, the National Council for Training and Professional Development, CNCF, existed from 2001 until it was repealed in 2011 by a new decree giving rise to the Technical Secretariat for Training and Professional Development (SETEC by its acronym in Spanish) that was created with the purpose of being part of the National Plan for Good Living, attached with the Ministry of Industry and Productivity (Jara, 2013), with the aim of training employees and workers in both the public and private sectors.

Human talent training, has as purpose: "promote the change of technical knowledge, skills, and abilities of human talent" (Uribe, 2003), and it should be embedded within a strategic training plan, aligned with organizational needs and goals, specific job requirements, which allows to enhance not only the skills necessary for a position, but also to maximize the knowledge and abilities of human talent enabling personal and professional growth, allowing individuals to develop and perform their functions efficiently and aspire to new responsibilities within the organization.

However, the training process must be continuous within an organization, starting from the analysis of human resource needs to optimize and enhance its performance, aligned with the organization's objectives to enable mutual growth, to increase productivity and competitiveness demanded by the current market. This collaborative progress should be reflected in the transformation of data, structured information and applied to the organization, and the knowledge that reflects learning and experience acquired depending on the organization.

Employment after COVID-19: A difficult challenge to overcome.

The pandemic abruptly destroyed, over 31 million jobs in Latin America and the Caribbean, in Ecuador the impact was of more than a million job losses, an unprecedented figure for the country's labor market, the region, and all its provinces. Young people, workers with fewer years of schooling, those in the informal sector, and especially, women, have been the most affected by the labor crisis unleashed by COVID-19. As is detailed in a report by the Inter-American Development Bank (IDB, 2020).

The COVID-19 crisis has had a strong impact on the living conditions of Ecuadorian citizens, particularly due to the loss of human lives with a greater impact on the provinces of Guayas,

Pichincha, Manabí, and Los Ríos. Likewise, the structural weaknesses in the healthcare system have resulted in negative impacts due to the difficulty of providing a timely response to health crises. According to the World Bank, the Organization for Economic Cooperation and Development (**OCDE by its acronym in Spanish**) (2020) indicates that the average number of hospital beds in Ecuador is 1,5 per 1.000 inhabitants, compared to 4,7 in the OECD. Ecuador has 2 doctors per 1.000 inhabitants, compared to 3,5 in the OCDE. While the priority is to limit the loss of lives and reduce the negative impact; in public policy, the crisis has significant implications in the well-being of people, including income, employment, educational opportunities, and development, additionally, the physical and emotional well-being is another priority of public policy (OECD, 2020). Responding to the crisis can help mitigate these negative effects, but it is necessary to persevere with ambitious goals, new initiatives, and adapt to change.

The crisis after COVID-19 posed a threat to employment that decreased the number of jobs, as companies reduced the demand for personnel due to cessation or reduction of economic activity. On the other hand, because of these measures, some workers were unable to perform their jobs physically, and they transitioned to remote work; and many of them lacked access to the necessary technology (OECD, 2020).

The impact of the crisis on employment remains highly uncertain; estimates indicate that Ecuador's formal employment rate decreased between -4,3% and -14,4% in 2020. According to Altamirano et al. (2020), the health crisis will undoubtedly affect employment and its impact will depend on the duration of the crisis (both internal and international), the response and weaknesses in facing it. The impact of the crisis resulted in layoffs, reductions in working hours, deterioration in working conditions, and an increase in unemployment, underemployment, and other categories of inadequate employment. The most vulnerable groups to unemployment include: young people, unskilled labor, informal workers and women, who are losing their jobs at a higher rate than others. In Quito, Guayaquil, and Cuenca, for instance, workers with lower educational levels lost three to four times more jobs than those with higher education levels, especially women; the ciphers are concerning in these provinces. Contrasting this with recent changes occurred in recent months, a quarter of informal workers with low education are unemployed, compared to 13% of formal workers with higher education. This highlights the unusual impact of the health and economic crisis on the labor market.

In Ecuador and Chimborazo, where two-thirds of the lost jobs were informal, the impact of the pandemic on the labor market is not limited to job losses. Many workers have seen their salaries or hours reduced to avoid losing their jobs. For example, in Argentina and Paraguay, working hours decreased by 9% and 13%, respectively, due to reduced economic activity. In Ecuador, the current government under Guillermo Lasso has implemented a similar policy. In all these cases, gender differences were also existed. While women lost more jobs and were forced to leave the workforce, men experienced more hours and higher wages.

When searching for some positive aspects of the pandemic in the labor and professional world, it is important to remember that not all changes in the job market are negative. The crisis has also brought about new opportunities to accelerate the transformation of the labor market in the region. One of them is telecommuting, at its peak during the pandemic in June 2020, where between 20% and 60% of the country's workers were able to take advantage of some form of

remote work. Once again, this advancement is only available to a small fraction of the population: only one in 10 workers with a low level of education has access to this type of remote employment option, forcing us to reflect on whether this is technically feasible. Modern formulas that lead to greater inequality.

During the pandemic, everything is learning, and as the country resumed its slow and accidental economic recovery, it is time to begin outlining what comes next for the post-pandemic labor market. The lessons learned from this crisis offer opportunities to strengthen work systems, post-secondary education and skills acquisition training, and to transform labor institutions that focus on the new needs of employment.

Also we want to keep in mind the usual definition of unemployment, which basically includes three criteria that must be met simultaneously and around its central axis, we consider unemployed all individuals in the required age for the economic measurement of the active population. And, within the reference period, there were:

- a) "Unemployed," that is, they are not employed for remuneration or are self-employed, as defined by the international definition of employment;
- b) "Currently available for work," that is, they were available for paid employment or self-employment during the reference period; and
- c) "Seeking employment," that is, taking specific steps in the most recent period to find paid employment or self-employment. Source: OIT, 2003.

Underemployment is as detrimental as unemployment, because poor people, especially in developing countries like ours, where social safety nets are often limited, cannot afford to lose their jobs, and consequently, they are compelled to engage in unproductive and poorly paid economic activities. They often work as self-employed individuals in the informal economy or switch from one informal job to another, spending extended periods searching for employment. Some may find themselves stuck in long-term, precarious or hazardous forms of employment, and while they may not be classified as unemployed, their conditions are often as dire as public employment programs which can also be utilized to address underemployment, but this necessitates an understanding of what it entails, as it is frequently a highly complex and challenging concept to grasp.

Underemployment is a social and economic issue that affects many countries worldwide, including Ecuador which is a country that has experienced a relatively high underemployment rate in recent years. According to data from the National Institute of Statistics and Censuses (INEC), the underemployment rate in Ecuador in the third quarter of 2022 was 13,2%, representing a 2,1% increase compared to the same period in the previous year (INEC, 2022). This indicates that more than one million people in Ecuador are underemployed.

In Chimborazo, a province located in the central region of Ecuador and is known for its agricultural and livestock economy. According to the INEC, in the third quarter of 2022, the underemployment rate in Chimborazo was 19,2%, representing an increase of 2,6% compared to the same period the previous year (INEC, 2022)<sup>1</sup>. This means that around 80.000 people in Chimborazo are underemployed.



We believe that there are multiple factors contributing to underemployment in Ecuador and in Chimborazo. One of the main factors is the lack of formal and well-paying job opportunities. Many people in Ecuador and in Chimborazo have to work in informal jobs with low wages and without social protection due to the lack of formal employment.

Another factor contributing to underemployment in Ecuador and in Chimborazo is the lack of education and training. Many people in these areas have low educational levels and do not possess the necessary skills to work in well-paid jobs.

To address the issue of underemployment in Ecuador and in Chimborazo, a comprehensive strategy is required to tackle the root causes of the problem. This includes the creation of more formal and well-paying jobs, the promotion of education and training to enhance labor skills, and the strengthening of social protection for informal workers.

Underemployment is a significant issue in Ecuador and in the province of Chimborazo in particular. Underemployment rates in these areas have been on the rise in recent years, highlighting the need to address the root causes of the problem. A comprehensive strategy is required to tackle the lack of job opportunities which are well-paying, insufficient education and training, and the need to strengthen social protection for both formal and informal workers.

The Economically Active Population (EAP) is the most affected.

According to the INEC, around 532.000 Ecuadorians are currently without regular employment, and the effects of labor crises in Ecuador can last up to nine years. This is illustrated in the World Bank's June 2021 report titled "Employment in Crisis, Pathways to Better Jobs in Post-Covid-19 Latin America." The document relied on decades of data on economic shocks and labor market responses in Latin American countries, including Ecuador and provinces with a lower business spectrum than major cities like Quito, Guayaquil, or Cuenca.

While the country's labor crisis is expected to last nearly a decade, the magnitude of the blow varies depending on the stability of the economy, politics, and the professional development and enhancement of workers. Due to the fact that workers with higher or university education "have felt little impact on salary from the crisis, and the impact on employment has been of short duration," conversely, for workers without higher education, the crisis translates into higher unemployment, informality, and, to the same extent, as experienced in the province of Chimborazo with lower wages. World Bank.

Between October 2022 and April 2021, the employment adequacy rate increased, while underemployment and unemployment rates decreased. According to the latest national survey, 32.5% of Ecuador's economically active population (EAP) achieved full employment, unemployment, and underemployment (Enemdu) in April 2022. This translates to a year-on-year increase of 1,7 percentage points. The National Institute of Statistics and Censuses (INEC), which implements Enemdu, states that a person is considered fully or totally employed when working 40 hours or more per week and earning at least a basic salary (\$450 per month).

1 National Institute of Statistics and Censuses (INEC). (2022). labor market. Retrieved on March 21, 2023, from <https://www.ecuadorencifras.gob.ec/mercado-laboral/>

Underemployment and unemployment decrease simultaneously, in April 2022, 62,6% of the working-age population will be underemployed, representing a 0.7 percentage point decrease compared with the same month in 2021. Underemployment includes: Underemployment: cases such as when an individual earns less than the minimum wage and/or works fewer hours than the legal workday, despite having the desire and time to work extra hours. Unpaid employment: People who has job but not incomes. Such as in the case of non-paid domestic workers. Other part-time employment: when an employed person is earning less than the base salary and/or working fewer hours than the legal workday, and either does not wish or does not have time to work overtime. Additionally, as of April 2022, the unemployment rate is 4,7% of EAP. This reflects a 0,4 percentage point reduction from April 2021.

We want to take these values from our country as reference points and compare them with their European counterparts to analyze what has happened in the old continent which serves as a benchmark for our investigation to continue taking shape.

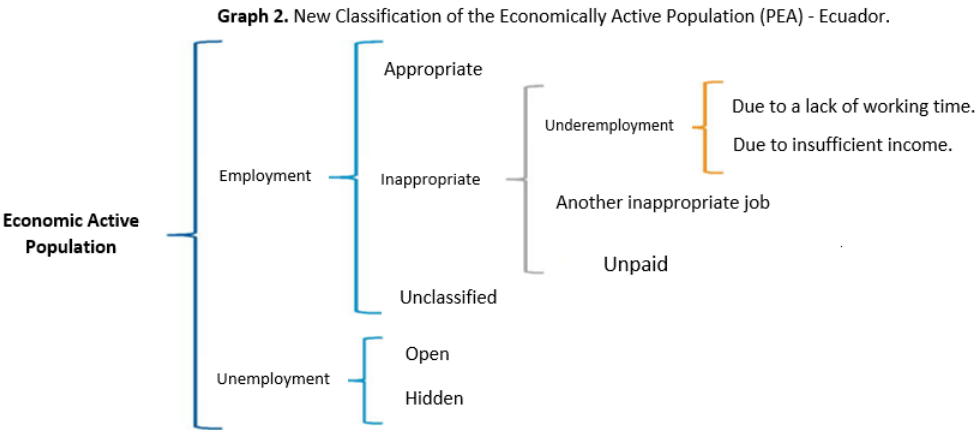
And it is that, according to the definition of the International Labour Organization (ILO), an unemployed person is someone who is without a job, is actively seeking employment and is available for work. However, the reality is that unemployment is a complex phenomenon that is not limited to the unemployed population, but translates into other conditions that restrict the labor force in many EU countries. This includes, for example, individuals who can maintain their jobs, but are not actively seeking them, or those who are underemployed. In other words, those who work fewer hours than they would like – for example, part-time workers eager to work full-time – a situation that affects nearly 3% of the active population in the EU but is spreading in a more pronounced way in some countries with structural employment problems, such as Spain, Italy, or Greece. This is illustrated by recent figures published by Eurostat, indicating that 14.5% of the EU workforce will be unemployed in some form by mid 2021. Eurostat refers to this indicator as labor market slack.

The statistics cover all recorded unsatisfied employment needs in community spaces and take into account both the unemployed or underemployed active population and the inactive population that is available but unable to work. From this perspective, Southern Europe is the region with the worst statistics. In fact, Spain is the worst-placed country, with 24,9% of its sizable active population (15 to 74 years old) experiencing unemployment in some form, followed by Italy at -23,6%- and Greece at -23,2%-. However, each country presents a different unemployment structure: Greece, for example, has a higher unemployment rate than Spain, but also a lower proportion of underemployment. In Italy, the demographic group that is available to work, but not actively seeking employment stands out the most: 12% of the active population.

The last group generally escapes official unemployment estimates, but it is large enough to be taken into account. In the European Union, an average of 2,9% of the active population works part-time, and the unemployment rate reaches 7%. However, each country presents a different unemployment structure: Greece, for example, has a higher unemployment rate than Spain but also a lower proportion of underemployment. In Italy, the demographic group that is available

to work but, does not seek it stands out the most: 12% of the active population. The last group generally escapes official unemployment estimates, but it is large enough to be taken into account. In the European Union, an average of 2,9% of the active population works part-time, and the unemployment rate reaches 7%.

Classification of the Economically Active Population (EAP).



The employment crisis has disproportionately affected low-skilled workers due to the lack of opportunities during the economic recovery. To this, we add the permanent effects of human capital loss associated with periods of unemployment or low-quality employment. "When a person is unemployed for a long time, it becomes more challenging for them to re-enter the formal sector. That's because one loses skills, enthusiasm, and becomes depressed," said Alfredo Arizaga, dean of the business school at SEK University and former finance minister. Rejoining the workforce becomes difficult because overall employment in Latin American countries tends to remain below pre-recession levels even 20 months after the onset of an economic downturn. On the contrary, formal employment remains below pre-crisis levels for over 30 months," said the World Bank. The study argues that part of the net loss of formal jobs is due to job displacement rather than job destruction; therefore, finding employment during a crisis is challenging not only for workers without higher education but also for newcomers to the workforce. In Ecuador, 532.000 people, or 6,3% of the economically active population (EAP), were unemployed in May 2021, marking the highest unemployment rate so far this year.

The majority of the unemployed (33.7%) are young people aged 15 to 24, that is, individuals who are just beginning their working lives. "Those who entered the workforce during the crisis faced more adverse career starts and struggled to recover from them," the study stated. Source: World Bank/INEC/2022.

Elements that are part of the analysis of unemployment and underemployment

Global participation rate.

The analysis of the overall participation rate in our province, establishes the percentage relationship between the workforce and the working-age population and reflects the proportion of the working-age population participating in the labor market. A higher participation rate also implies increased pressure of the workforce on the labor market (labor supply) (Ministry of Labor, 2022). Looking at it differently, we know that both the overall participation rate and the workforce participation rate are calculated by expressing the number of people in the workforce as a percentage of the working-age population. The workforce is the sum of the number of employed and unemployed individuals. The term working-age population refers to those who have reached the minimum age for employment, age which, although it may vary from one country to another based on legislation and practice, is typically set at 15 years old.

Table 1. Global Participation Rate in various provinces of Ecuador.

PROVINCE	2019	2021
AZUAY	70.2%	70.1%
BOLIVAR	73.0%	68.1%
CAÑAR	71.8%	74.2%
CARCHI	68.8%	62.8%
COTOPAXI	82.2%	80.4%
CHIMBORAZO	82.1%	81.8%
EL ORO	65.7%	65.6%
ESMERALDAS	62.2%	58.4%
GUAYAS	63.8%	62.5%
IMBABURA	64.7%	63.1%
LOJA	74.2%	69.9%
LOS RIOS	63.8%	62.0%

Source: Annual ENEMDU (Global Participation Rate at the Provincial Level, 2019 - 2021).

The global participation rate (GPR) for the year 2021 at the national level was 66%, while the province of Chimborazo was 82,1% and 81,8%. Compared to the years 2019 and 2021, there was a slight decrease of 0,3%.

That is, the pressure of the workforce on the labor market in the province experienced a slight decrease, due to the pandemic; some people left the labor market due to concerns about their health. However, it is worth noting that the province ranks among the top four highest at the national level.

#### Unemployment.

Unemployment, according to (ENEMDU, 22), in the year 2021, the national unemployment rate was 5,2%. Regarding the Province of Chimborazo, the unemployment rate ranged from 1,3% to 2,3%, also showing an increase of 1% compared to the years 2019 and 2021.

That is, companies not being prepared for a crisis like the pandemic without having a contingency plan, to avoid generating excessive losses or exiting the market, resorted to abrupt layoffs, this would help reduce payroll expenses. Considering that the company made that decision based on its sales.

Table 2. Unemployment Rate in various provinces of Ecuador.

PROVINCE	2019	2021
AZUAY	3.4%	5.1%
BOLIVAR	1.4%	1.1%
CAÑAR	3.9%	4.0%
CARCHI	4.9%	6.3%
COTOPAXI	1.7%	2.8%
CHIMBORAZO	1.3%	2.3%
EL ORO	4.9%	6.9%
ESMERALDAS	10.4%	10.0%
GUAYAS	3.1%	3.9%
IMBABURA	6.8%	6.0%
LOJA	3.6%	4.1%
LOS RIOS	2.8%	2.8%

Source: Annual ENEMDU (provincial unemployment rate, years 2019 and 2021).

Full employment.

"Full" is an adjective that can be used to refer to something that is complete. "Employment," on the other hand, is a term that is used in reference to a specific work or profession.

The notion of full employment developed in the field of economics refers to the situation in which all individuals of working age who wish to work, count with employment. Full employment, in theory, implies the absence of unemployment and that the supply of labor is sufficient to fulfill the demand.

In the real world, however, there is no unemployment rate that equals zero. That's why it is considered full employment in those economies with very low levels of unemployment. Specifically, it is established that we can speak of full employment when the mentioned unemployment rate does not exceed 3% of the so-called active population.

In Ecuador for the year 2021, the rate of suitable employment at the national level was 32,5%. With reference to the province of Chimborazo, the prevailing ciphers were 19,3% in 2019 and 16,1% for the year 2021. It is observed that there was a decrease of 3,2%. In other words, people lost or moved to another employment category due to the economic repercussions that the country was dealing with.

Table 3. Full Employment Rate in various provinces of Ecuador.

PROVINCE	2019	2021
AZUAY	44.2%	38.8%
BOLIVAR	20.9%	17.0%
CAÑAR	30.9%	26.8%
CARCHI	28.7%	24.7%
COTOPAXI	26.2%	25.6%
CHIMBORAZO	19.3%	16.1%
EL ORO	47.2%	37.2%
ESMERALDAS	24.0%	21.7%
GUAYAS	45.0%	37.4%
IMBABURA	31.6%	30.1%
LOJA	26.9%	26.0%

LOS RIOS	31.9%	28.6%
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Source: annual ENEMDU (Employment Rate Appropriate at Provincial Level, Years 2019 and 2021) as a percentage relative to the economically active population (PEA).

### The Underemployment.

According to what is mentioned in the ENEMDU, for the year 2021, the national underemployment rate was 23,2%. In the province of Chimborazo, according to the years 2019, it had a rate of 13,9%, and in the year 2021, of 24,5%, in summary, there is evidence of an increase in its rates by 10,5%. This is due to the unstable economy of the country and the crisis caused by the pandemic led to a decrease in sales for companies, reason why to avoid complete layoffs, they resort to underemployment by reducing the number of hours and productivity, as well as the salary. People, in order not to completely lose their jobs, had to accept the terms set by the companies.

Table 4. Underemployment Rate in various provinces of Ecuador.

PROVINCE	2019	2021
AZUAY	11.0%	19.2%
BOLIVAR	16.8%	20.8%
CAÑAR	15.7%	21.1%
CARCHI	19.5%	25.6%
COTOPAXI	15.3%	24.0%
CHIMBORAZO	13.9%	24.5%
EL ORO	15.3%	25.2%
ESMERALDAS	22.8%	24.1%
GUAYAS	21.8%	23.7%
IMBABURA	16.3%	20.3%
LOJA	16.7%	20.0%
LOS RIOS	27.0%	26.0%

Source: Annual ENEMDU (underemployment rate suitable at the provincial level, years 2019 and 2021) as a percentage relative to the economically active population (PEA).

### Other non-full employment.

The rate of other non-full employment in 2021 at the national level was 27,1%. Regarding each province, Chimborazo had a rate of 32,9% in 2019 and 30,2% in 2021, showing a decrease of 2,7%. In other words, at the level of all provinces, Chimborazo has a high percentage, consequently, a significant proportion of people, in order to satisfy their basic needs have resorted to jobs outside their professional fields, due to the lack of employment and with a shortage of job positions in their professions, individuals have opted to work in unrelated fields, such as taxi drivers and other jobs unrelated to their professions.

Another form of non-full employment is globalization and international competition, which has led many companies to reduce costs through the hiring of temporary or subcontracted workers who do not have the same rights and labor protections as permanent workers. Some politicians refer to it as the precariousness of employment; however, technically, it can be understood as a possibility to hire workers without committing high amounts of companies' budgets.

Table 5. Rate of Non-Full Employment in various provinces of Ecuador.

PROVINCE	2019	2021
AZUAY	28.5%	25.7%
BOLIVAR	33.8%	34.4%
CAÑAR	30.8%	29.4%
CARCHI	34.3%	33.3%
COTOPAXI	32.5%	27.5%
CHIMBORAZO	32.9%	30.2%
EL ORO	25.8%	23.7%
ESMERALDAS	34.2%	33.3%
GUAYAS	23.7%	27.7%
IMBABURA	33.9%	31.0%
LOJA	30.8%	30.2%
LOS RIOS	30.7%	33.6%

Source: ENEMDU annual (Non-full employment rate at the provincial level, years 2019 and 2021) as a percentage of the economically active population (EAP).

#### Unpaid employment.

The rate of unpaid employment at the national level was 11,1%, and at the provincial level, Chimborazo had a rate of 32,4% in 2019 and 26,7% in 2021. This shows a decrease of 5,7%. That is, because companies no longer had job openings there was no opportunity for people to work or engage in student internships, as the health crisis was more important that everything else.

Table 6. Unpaid Employment Rate in various provinces of Ecuador.

PROVINCE	2019	2021
AZUAY	12.8%	10.9%
BOLIVAR	26.9%	26.2%
CAÑAR	18.7%	18.5%
CARCHI	12.5%	9.8%
COTOPAXI	24.1%	20.0%
CHIMBORAZO	32.9%	26.7%
EL ORO	6.8%	6.8%
ESMERALDAS	8.5%	10.6%
GUAYAS	5.4%	6.0%
IMBABURA	11.1%	11.9%
LOJA	22.0%	19.6%
LOS RIOS	7.6%	8.8%

Source: Annual ENEMDU (unpaid employment rate at the provincial level, years 2019 and 2021) as a percentage of the economically active population (PEA).

Table 6. Causes of unemployment.

Causes	Economic context
1. Slow economic growth.	Slow economic growth can affect job generation. When the economy does not expand rapidly, companies may have fewer incentives to hire new personnel.

2. Natural resource dependence.	The Ecuadorian economy has historically depended on natural resources, such as oil. Fluctuations in the prices of these resources can have a significant impact on economic stability and employment.
3. Political instability.	Political instability and related uncertainty can impact investor confidence and corporate decision-making, which in turn can affect job creation.
4. Discrepancies in labor supply and demand.	The lack of match between the skills of available workers and those demanded by companies can contribute to structural unemployment.
5. Impact of global economic crises.	The Ecuadorian economy can be affected by global economic crises, such as the COVID-19 pandemic, which has had a significant impact worldwide.
6. Education and training issues.	The lack of access to adequate education and training for the labor market contributes to the lack of employment.
7. Informal employment.	The high proportion of informal employment can be a factor, as informal workers may not have access to benefits and job security.

### Legal Criteria on Unemployment.

The right to work: considering that work is a fundamental human right, as recognized by the Universal Declaration of Human Rights (1942) proclaimed by the United Nations General Assembly, on December 10, 1948, in Paris, in the Article 23,1, it stated that "everyone has the right to work, to free choice of employment, to just and favorable conditions of work and to protection against unemployment."

On its part, Ecuadorian national legislation on "the right to work" is outlined in the (Constitution of the Republic of Ecuador, 2008), Article 33: "work is a social right and duty, and an economic right, a source of personal fulfillment and the foundation of the economy. The State shall guarantee to working individuals full respect for their dignity, a decent life, fair remuneration and compensation, and the performance of healthy and freely chosen or accepted work." Article 66,2 (ibidem), the former being a source of personal fulfillment that allows for the satisfaction of basic needs and enables the individual's active integration into society. (Judgment 38-12-EP/19). This is why the (Constitutional Court of Ecuador, 2014) states that: "the right to work is a right of transcendental importance, as it guarantees to all individuals dignified work, in line with human needs, allowing them to perform in an optimal environment, with fair and rational remuneration."

In this way, the Magna Carta, has outlined in Article 326 the fundamental principles that govern, among which the non-waiver and non-negotiability of labor rights are included, the principle of doubt regarding the scope that a legal, regulatory, or contractual norm may have will prefer the interpretation that most favors the worker, the right and freedom of unionization, among others.

According to what was mentioned earlier, the logical consequence is the duty of the State to protect the right to work, in compliance with the doctrine referred to as "the protective principle," which relates to Article 5 of (the Labor Code, 2005) stating that "judicial and administrative officials are obligated to provide timely and suitable protection to workers for the guarantee and effectiveness of their rights."

From the termination of the employment relationship: once the characteristics, principles, and development of Labor Law in the constitutional, legal, and supranational sphere have been



clarified, it is pertinent to point out that, in Ecuador, according to Article 14 of the Labor Code, the indefinite contract is the typical modality of the employment contract.

Thus, the aforementioned regulation indicates that "The individual employment contract for an indefinite period is the typical modality of stable or permanent employment, and its termination will occur solely for the causes and procedures established in this Code."

While exceptions are established such as fixed-term contracts, that are not customary in the employer's or company's activity, eventual, occasional and seasonal contracts, apprenticeship contracts, and others predetermined by law, it is essential to highlight the fact that it is determined that the employment relationship will only terminate for the reasons specified by law, in other words, it requires a sufficient and justified cause for this course of action.

To complement this idea, it is pertinent to point out what the causes are for which the employment relationship can be terminated, and to address this concern we must cite the explicit content of Article 169 of the subject code, which details the following:

"Article 169.- Causes for the termination of the individual contract.- The individual employment contract terminates: 1. Due to causes legally stipulated in the contract; 2. By mutual agreement of the parties; 3. Upon completion of the work, labor period, or services specified in the contract; 4. Due to the death or incapacity of the employer or the extinction of the contracting legal entity, if there is no legal representative or successor to continue the business or enterprise; 5. In case of the death of the worker or permanent and total incapacity for work; 6. Due to fortuitous events or force majeure that make work impossible, such as fire, earthquake, storm, explosion, field pests, war, and, in general, any other extraordinary event that the contracting parties could not have foreseen, could not have avoided; 7. At the will of the employer in cases stipulated in Article 172 of this Code; 8. At the will of the worker according to Article 173 of this Code; and 9. By eviction notice presented by the worker."

Regarding unemployment, concepts such as the right to work, the principle of job stability, the forms of termination of the employment relationship according to infra-constitutional regulations, and untimely dismissal, it is convenient to address the issue of unemployment.

(Guevara & Ortega, 2021) defines unemployment as "the involuntary and transitory situation in which a person with productive capacity and age finds themselves unable to access a job and therefore unable to generate income for their benefit."

(Sánchez, Vayas, Mayorga, & Freitas, 2022) Within the causes that give rise to unemployment, the following can be mentioned: 1) the development of technology and its utilization in productive processes which increasingly allows replacing the workforce; 2) immigration of people from abroad who compete for job positions with local workers and employees, as it is a reality that certain employers prefer to hire them to reduce their operational costs by paying them less than the currently set basic salary in Ecuador, taking advantage of their vulnerable situation. 3) Country Risk, which has been defined as "an indicator that measures the possibilities of a country's external debt payment, the higher the Country Risk value, the higher the interest rates when borrowing, and it can negatively impact foreign investments and new credit operations, both for public and private enterprises, however, if the index is low, it can attract investors and

contribute to the development of countries"; 4) the effects of the Covid-19 pandemic, especially those occurring during the period of mandatory confinement, which affected social relations and evidently economic activities.

In this way, in Ecuador and according to the National Institute of Statistics and Censuses -INEC (ENEMDU, 2023), the unemployment situation during the year 2023 was as follows:

The national unemployment rate reached 4,0%, compared to the 4,7% from the same period the previous year, indicating a non-significant reduction of approximately 0,7 percentage points. When broken down by area, the unemployment rate was 5,4% for the urban area, while for the rural area was 1,4%. When disaggregating unemployment by gender, the results show that women have a higher rate compared to their male counterparts. At the national level, 4,9% of women in the economically active population (EAP) were unemployed, whereas the rate for men was 3,4%. The 1,5 percentage point difference in the unemployment rate between men and women was statistically significant. Similarly, when analyzing unemployment based on the method used, it is observed that open unemployment was higher than hidden unemployment. According to the results, 3,6% of the EAP at the national level was actively seeking employment (open unemployment), and 0,4% was unemployed without taking any job-seeking action (hidden unemployment) but was available for work.

## Conclusions

Unemployment reduces the economic production of a province, diminishes tax revenue, limits investment in infrastructure and public services, decreases private investment in a region or city where competitive conditions for establishment are not present and opts to do so in urban areas that offer more advantageous hiring possibilities. Unemployment increases poverty and social exclusion, resulting in negative effects on the health, education, and security of the population. In social terms, unemployment has psychological and emotional consequences for individuals experiencing it. Unemployment heightens stress, anxiety, affects the mental health of individuals and impacts family and social relationships, additionally, it leads to crime and other signs of societal degradation. Unemployment causes people to have less disposable income to spend on goods and services, reducing the demand for products and negatively affecting local businesses. It diminishes attraction for foreign investment in the country, and as a result, the lack of investment has led to a decrease in employment opportunities, particularly in sectors such as construction and manufacturing industry.

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