Labor Market

Luis Francisco Gomez Lopez

2024-02-06

Contents

- Please Read Me
- Purpose
- Labor classification of the population
- Labor market indicators
- Labor demand
- Wages
- Labor regulation
- Economic environment and the Company
- Acknowledgments
- References

Please Read Me

- Check the message Welcome greeting published in the News Bulletin Board.
- Dear student please edit your profile uploading a photo where your face is clearly visible.
- The purpose of the virtual meetings is to answer questions and not to make a summary of the study material.
- This presentation is based on (Cardenas 2020, chap. 9)

Purpose

Examine the evolution and characteristics of the supply and demand of labor in Colombia

Labor classification of the population

- To understand the indicators of the labor market from an economic perspective, it is necessary to classify the population from a labor point of view. Initially, the total population of a territory could be included but in practice the **Total Population (TP)** that is included doesn't cover (Hussmanns, Mehran, and Varmā 1990, chap. 2):
 - Members of the armed forces because this information is considered secret or because it is not easy to obtain information when its members are in barracks and military areas.
 - Residents in institutions such as people who are not part of the military forces but reside in military facilities, residents of penal or correctional centers and hospital residents.
- In that sense, the Total Population (TP) covers the non-institutional civilian population residing in households.

Labor classification of the population

Labor classification of the population in Colombia

Period: December 2023 Total Population (TP) 51,269,975 Working Age Population below Population 15 years (WAP) 11.460.679 39,809,296 I evel Labor Labor Force Force (NLF) 25,408,676 14,400,620

> Sources: DANE, Gran Encuesta Integrada de Hogares - GEIH Last update: 2024-01-31

Labor market indicators

- Percentage of the working age population ("Porcentaje de población en edad de trabajar")
 - $\%WAP = \frac{WAP}{PT} \times 100$
- Labor participation rate (LPR) ("Tasa global de participación")
 - $LPR = \frac{LF}{WAP} \times 100$

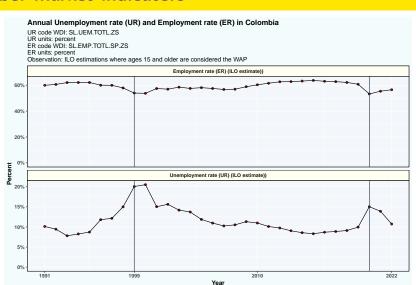
Labor market indicators

- Employment rate (ER) ("Tasa de ocupación")
 - $UR = \frac{E}{WAP} \times 100$
- Unemployment rate (UR) ("Tasa de desempleo")
 - $UR = \frac{U}{LF} \times 100$
- Underemployment (UER) ("Tasa de subempleo")
 - $UER = \frac{UE}{LF} \times 100$

Labor demand

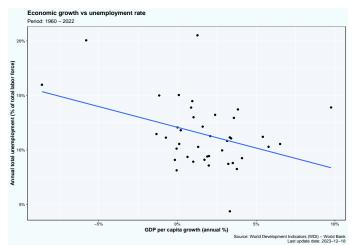
- The labor demand is the process by which the economy generates job vacancies
- How companies decide how many workers to contract?
 - Demand of the products that offer by the company
 - Wages (the price of labor)
 - Labor regulation
 - The costs of other inputs different form labor and used in production
 - The technology used by companies

Labor market indicators

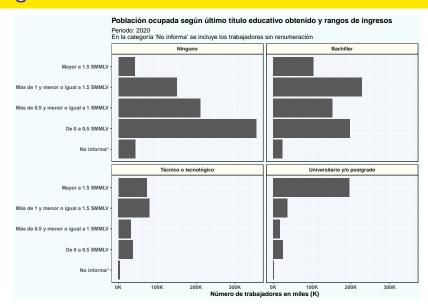


Labor demand

• In times of low economic growth, companies reduce production and therefore hire fewer workers.



Wages



Wages

Mincer equation

- $log_e(w_{it}) = log_e(w_o) + \beta_1 E d_{it} + \beta_2 E x_{it} + \beta_2 E x_{it}^2 + \epsilon_{it}$
 - log_e: natural logarithm
 - w_{it} : wage of individual i in period t
 - ullet w_o : wage without any level of education an experience
 - \bullet $\;\epsilon_{it} :$ years of education of individual i in period t
 - \bullet $Ex_{it}:$ potential experience of individual i in period t which is equal to the age minus the years of education minus six
 - $\bullet \ \epsilon_{it} :$ are other components of individual i in period t that might affect the wage

Labor regulation

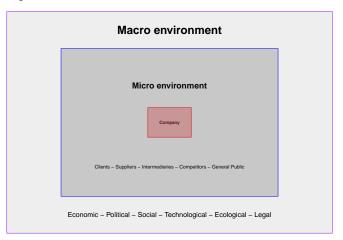
- The labor regulation refers to:
 - The laws governing labor contracts
 - Laws governing labor relations that empower unions to represent workers collectively
 - Social security laws governing the response to social needs such as unemployment, maternity, old age, disability, death and sickness

Labor regulation

- Resources
 - Calculadora Laboral Mintrabajo
 - https://www.mintrabajo.gov.co/atencion-al-ciudadano/tramites-y-servicios/mi-calculadora

Economic environment and the Company

 Set of economic factors and forces that influence the development of and organization.



Based on https://foda-dafo.com/

Acknowledgments

- To my family that supports me
- To the taxpayers of Colombia and the UMNG students who pay my salary
- To the Business Science and R4DS Online Learning communities where I learn R
- To the R Core Team, the creators of RStudio IDE, Quarto and the authors and maintainers of the packages tidyverse, tidyquant, readxl, and tinytex for allowing me to access these tools without paying for a license
- To the Linux kernel community for allowing me the possibility to use some Linux distributions as my main OS without paying for a license

References I

Cardenas, Mauricio. 2020. *Introducción a La Economía Colombiana*. 4th ed. Alfaomega.

Hussmanns, Ralf, Farhad Mehran, and Vijaya Varmā. 1990. Surveys of Economically Active Population, Employment, Unemployment, and Underemployment: An ILO Manual on Concepts and Methods. Geneva: International Labour Office. https://www.ilo.org/global/statistics-and-databases/publications/WCMS_215885/lang--en/index.htm.