

# Know how to migrate

## 1. Introduction

### 1.1 Background

There are many reasons why, in recent years, migratory movements have been growing and the number of immigrants is increasing in developed countries: the search for better living and working conditions, the global labor market, economic inequalities Persistent social and demographic factors, human rights violations, environmental changes as well as conflict and violence are drivers of migration.

### 1.2 Problem

The objective of this project is to parameterize and stimulate the migratory choice, through the analysis of the benefits and stability offered to its inhabitants by the countries with the best migration rates according to the ONU.

### 1.3 Interest

Anyone interested in changing their habitual residence (migrating), will know how they will be able to face the day to day and what challenges to expect. They will be able to assess the health costs, the level of security and the economic development of their future new home.

It can also benefit countries interested in increasing their migration rate.

## 2. Acquisition and cleaning of data

### 2.1 Data sources

The data was extracted from Wikipedia, which was nurtured by each of the world institutions representing each of the parameters analyzed:

| Parameter Analyzed      | Institution that issues the statistics |
|-------------------------|--|
| International migration | ONU                                    |
| PIB                     | FMI                                    |
| Average wage            | ONU                                    |
| Life expectancy         | ONU                                    |
| Health Expenditure      | OMS                                    |
| Homicide Rate           | UNODC                                  |

### 2.2 Data cleaning

The data downloaded or extracted from multiple sources was cleaned individually, keeping as the main information the names of the countries with the highest rate of migrants. The rest of the tables were filtered and cleaned based on the list issued by the UN.

The data sets did not have the same volume of information in terms of years and countries per year, so the values corresponding to 2019 were taken since in all the data sets it had all the values.

## **2.3 Function selection**

The data was analyzed on a jupyter notebook and the following libraries were used:

Numpy

Pandas

Requests

BeautifulSoup4

KMeans

Matplotlib.pyplot

Seaborn

Folium

### 3 Exploratory data analysis

#### International Migration

Migration is defined as the change of habitual residence of a person from one territory (country) to another for a period that is expected to be at least 12 months. Thus, when we speak of migration and immigrants, we are referring to people who enter one country and were born or come from another.

The origin-destination relationship of a migrant depends on the personal characteristics of the migrant, such as education, skills, sex, race, personality and aspirations. Generally, people decide to emigrate to prosperous countries close to their own.

In the table we can see the population of the countries with the highest migration rates from 2001 to 2019, according to ONU data.

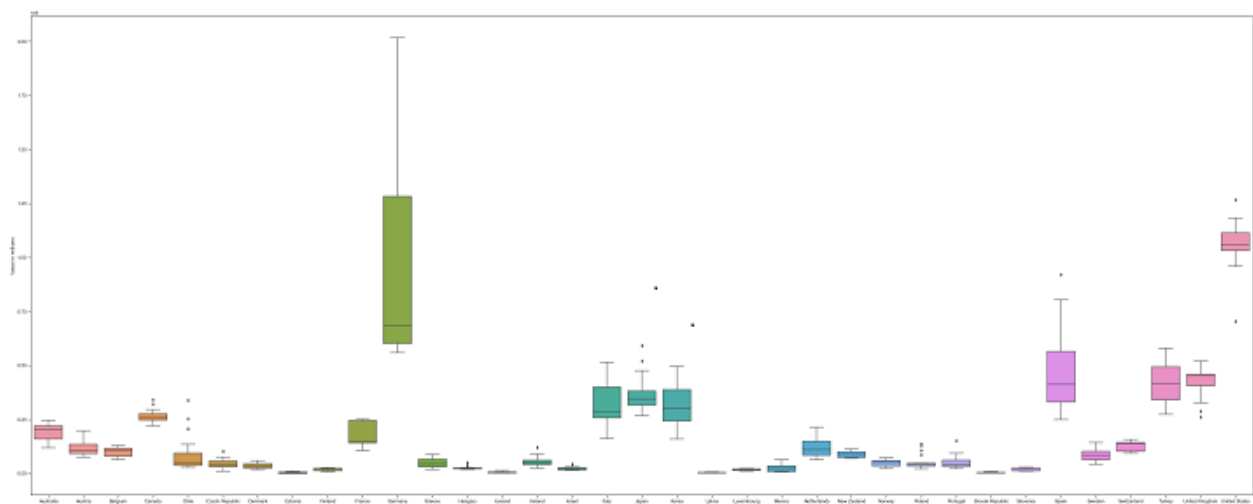


Fig 1. Best receiving countries for migrants

## Countries by GDP (PPP) per capita

The Gross Domestic Product (GDP) is a macroeconomic magnitude, which expresses the monetary value of the production of goods and services of final demand of a country or region, normally during a year. GDP is also defined as the set of all final goods and services produced in a country during a year.

The GDP per capita (or GDP per inhabitant) is obtained by dividing the GDP by the number of inhabitants. It allows us to compare the well-being of the inhabitants of different countries, since it represents the value of the goods and services produced by each of them.

The data table will show the GDP for the countries with the highest migration flow, which will mean the graphic representation of the countries with the highest economic growth according to the International Monetary Fund.

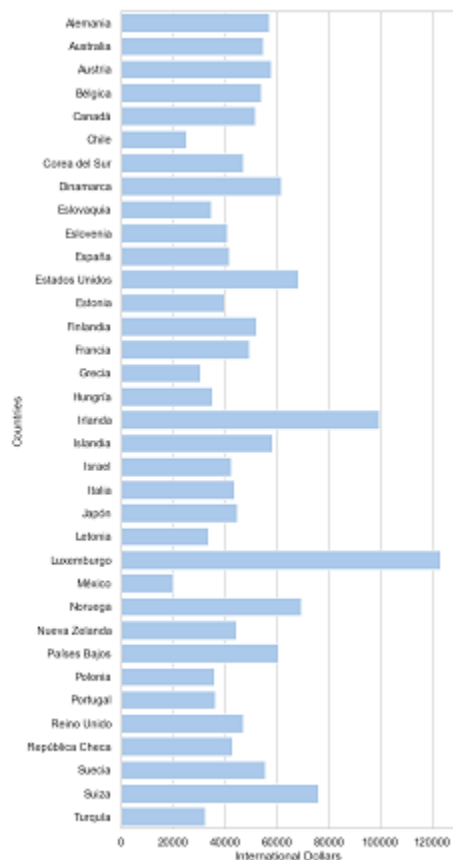


Fig 2 Countries by GDP (PPP) per capita (according to the International Monetary)

# Evolution of average annual wages

Median salary is a measure of total income after taxes, divided by the total number of employees. Average salary is adjusted for living expenses and purchasing power parity (PPP). It is the average remuneration amount that a worker must receive for the legal working day, regardless of the type of contract they have.

The salary adjustment is carried out recognizing the loss of the purchasing power of money and is updated year by year, thus the readjustment of the value of the salary will be carried out according to the consumer price index (CPI) and eventually other factors.

In the table we can see the evolution of the average salary in the countries with the highest number of migrants from 2000 to 2019, according to ONU data.

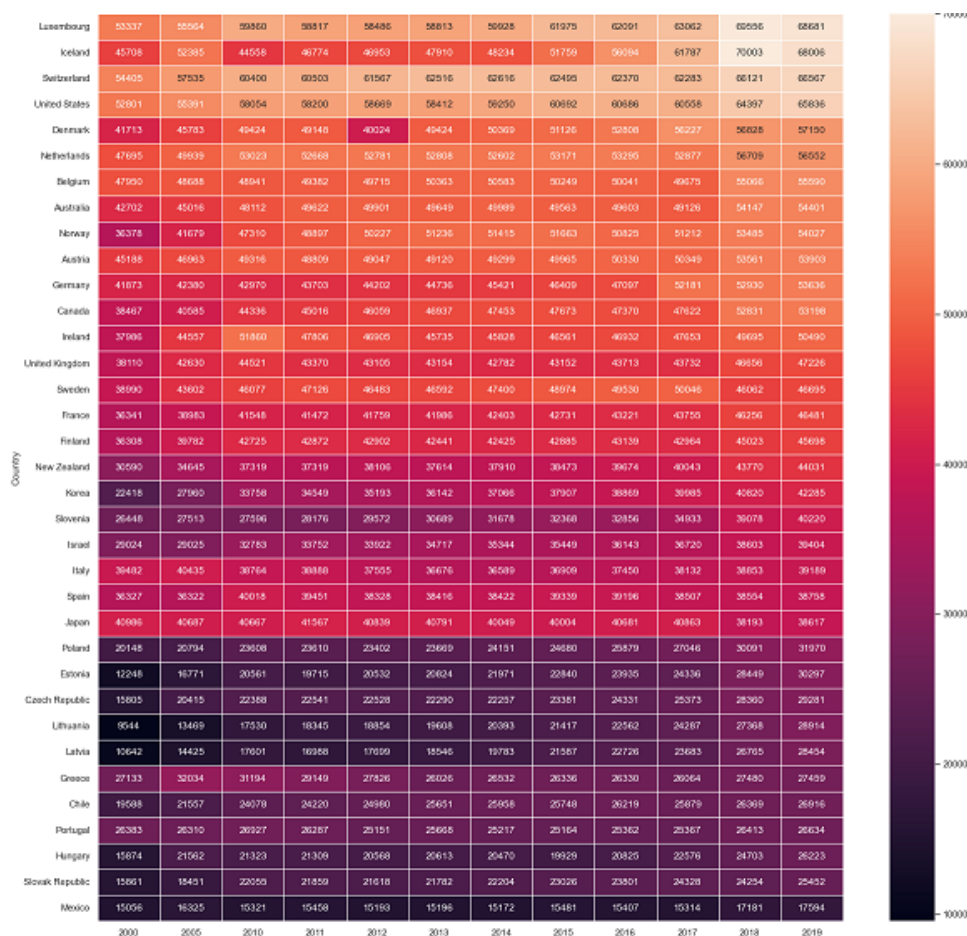


Fig 3 Evolution of average annual wages 2000-2019 (PPP in US dollars)

## Countries by life expectancy

The graphical analysis shows the life expectancy by country in a general way, Taking as a reference the nations with the highest migration index.

The ONU establishes the following definition of Life expectancy: "Number of years that a newborn can expect to live if the mortality patterns by age prevailing at the time of her birth remain the same throughout her life" .

Life expectancy is the average number of years that a certain population lives, born in the same year. It can change throughout a person's life.

The factors that influence this are access to medicines and health services, health conditions, drinking water, hygiene standards and economic resources, ongoing wars, eating habits and VIH infections, among others. A high life expectancy indicates a better economic and social development in the population

The differences in life expectancy by gender can be explained by changes such as the reduction in maternal mortality, as well as the decrease in the total fertility rate, the increase in smoking in men and the decrease in infectious diseases.

Taking into account the aforementioned aspects, the figures reflect life expectancy in the countries listed, which will be one of the indicators to measure the quality of life in a region.

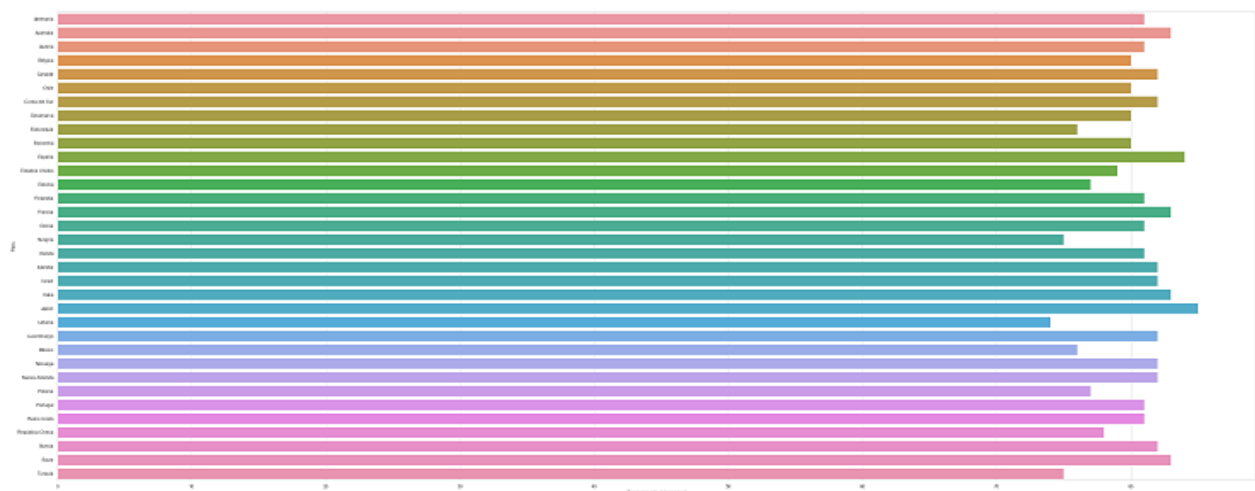


Fig 4 Life Expectancy.

# Health Care Costs By Country

Health Expenditure is made up of those disbursements made for health benefits and supplies from the public and private sectors, family planning activities, nutrition, and health emergency assistance.

The purpose of any health system is to promote and maintain health, avoid, alleviate and treat disease, ensuring that the services it offers have the minimum characteristics of equity, accessibility and quality. Safety and quality have become a priority for healthcare systems.

The data table will show the cost of health per capita, during the years 2017, 2018 and 2019.

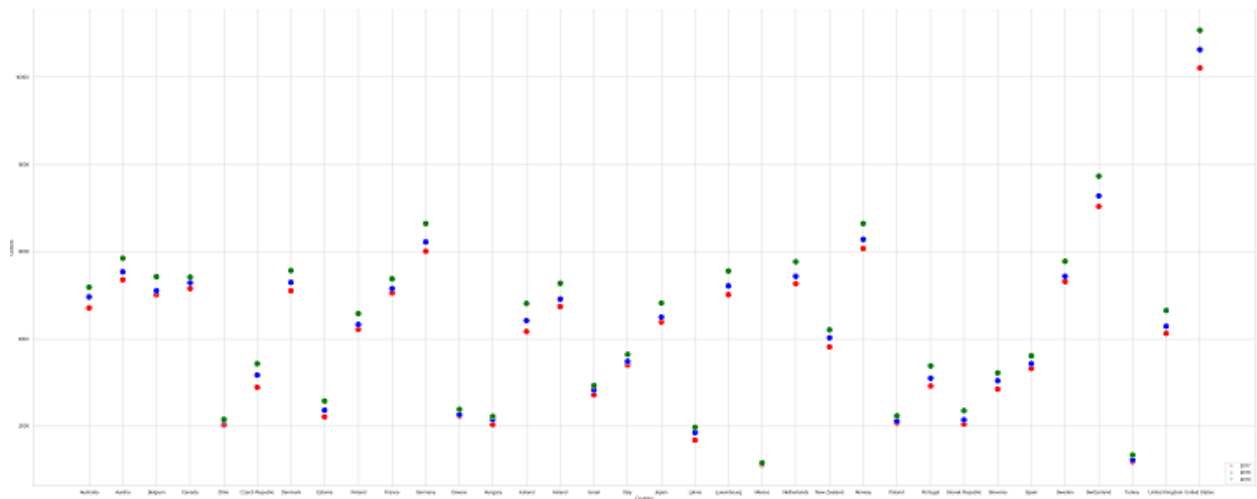


Fig 5 Health Care Costs By Country 2021



## Countries by intentional homicide rate

Factors driving this crime include inequality, unemployment, political instability, the prevalence of gender stereotypes in society, and the presence of organized crime.

For a homicide to be defined as intentional or intentional, it is necessary that one person causes the death of another and that the perpetrator had the intention of seriously injuring or killing the victim. We can also speak of intentional homicide when the perpetrator performs an action knowing that it can lead to the death of people, such as by setting a fire or planting a bomb. Demographic data of intentional homicide are affected by changes in care trauma, leading to a change in the lethality of violent assaults, so the intentional homicide rate does not necessarily indicate the overall level of social violence. They can also be underestimated for political reasons.

Deaths resulting from a non-international armed conflict may or may not be included, depending on the intensity of the hostilities and whether they are classified as "civil unrest" or as clashes between organized armed groups.

In the table, we can visualize the homicide rate in each of the countries under analysis. The intentional homicide rate is represented per 100,000 inhabitants in each of the countries according to the UNODC (United Nations Office on Drugs and Crime).

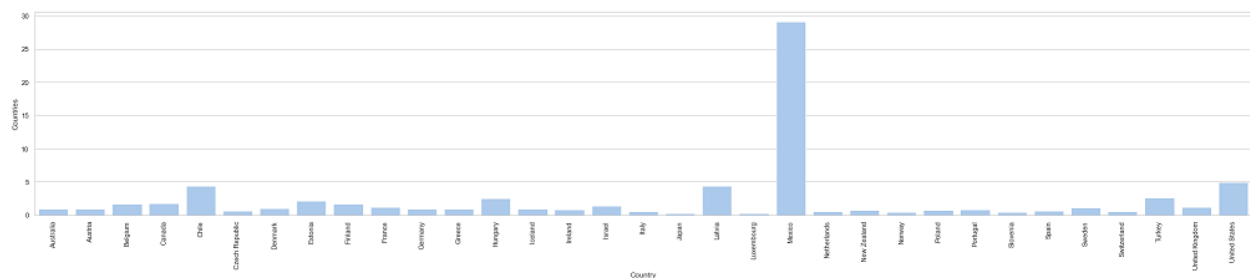
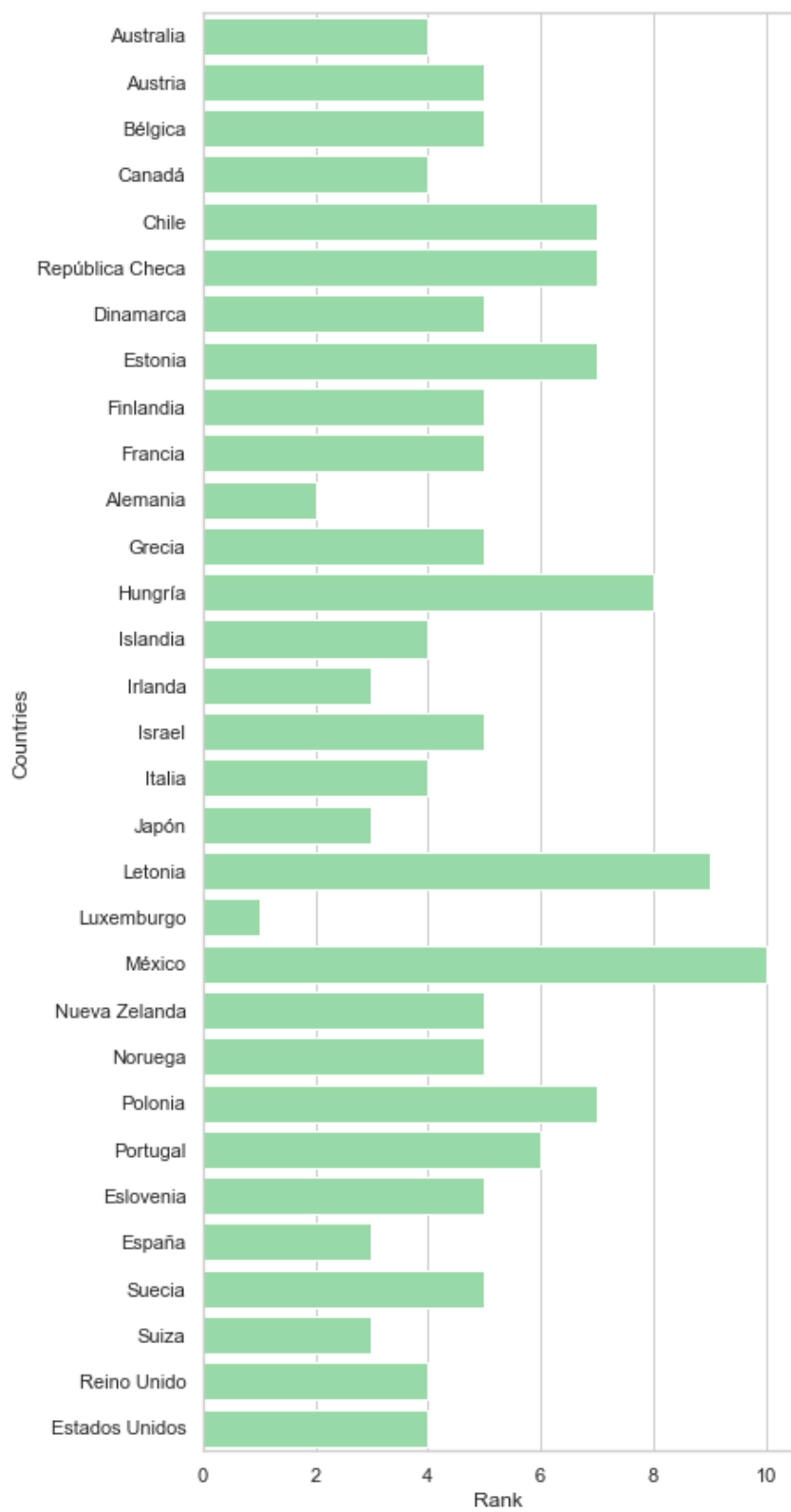


Fig 6 List of countries by intentional homicide rate (Intentional homicide victims per 100,000 inhabitants. From UNODC.)

## Ranking of the best countries to migrate



## **Conclusions**

Without forgetting that at this crossroads and tide of concepts and ideals, there is a human being who seeks to improve his quality of life when it is affected. That is why the concepts of cost, quality, health and safety systems must be kept in mind, to know what to keep in mind when looking in the best way towards the future.

## **Recommendations**

There are dissimilar migratory programs with different objectives, it is important that any person with an interest in changing their habitual residence, regardless of their native language or their profession, knows how the characteristics of the chosen destination (say new home) may affect their future life.