

**DATA ANALYTICS REPORT**  
**ON**  
**GLOBAL UNEMPLOYMENT DATA**

## **INTRODUCTION**

The global unemployment data indicates the proportion of the labor force population who for one reason or another are without work. This data expectantly varies from one locality to another as the factors influencing it tend to have different levels of effects from one place to another. It is therefore important to study this data to gain insights and as a result understand the meaning that lies in this data.

This data was sourced from Kaggle's official website. The data was structured with 16 columns and 1134 rows. The primary column which had the entries for the particular countries had 189 countries. Each country had 6 row related data. This was as a result of the gender and age category criteria. The included genders were male and female, while the age categories were the youth, adults and children. Employing the fusion of the gender and age categories resulted into having 6 rows for each country. The other columns of interest were the 11 that had the years spanning from 2014 to 2024, each with a representation of the unemployment rate for each country with respect to the gender-age categories criteria.

## **NOTABLE ALTERATIONS ON THE DATA**

Before getting to manipulate the data, room for certain alterations on the data had to be welcomed to ease the manipulation process in what is termed as data cleaning. There were a total of 30 null values occurring across 12 rows. These rows couldn't ideally be done away with through deletion because of their nature of occurrences. The average unemployment rate for each affected row was calculated with the available values and the null entries filled by the respective average values.

## **RESULTS**

### ***Maximum unemployment rates for the years with respect to countries***

#### ***2014***

##### ***Maximum***

The age categories that had the highest unemployment rate for each country were the adults and youth. The youth led in 187 countries, while the adults in the remaining 2. The 2 countries were Kazakhstan and Liberia.

The females had the highest unemployment rate for each country, leading in 126 countries, while their male counterparts led in the remaining 63 countries.

##### ***Minimum***

186 countries had adults as their minimum rate while the remaining 3 had the youth. These countries are Kazakhstan, Liberia and Niger. 128 countries had males as their minimum rate while 61 had females.

#### ***2015***

##### ***Maximum***

187 countries had youth while 2 had adults. The 2 still remained Kazakhstan and Liberia. 127 had females while 62 had males.

##### ***Minimum***

185 countries had adults while 4 had youth. The 4 were Kazakhstan, Liberia, Niger and Chad.

#### ***2016***

##### ***Maximum***

187 countries had the youth while 2 had adults. Kazakhstan and Liberia still insisted. 124 countries had females while 65 had males.

### *Minimum*

184 countries had adults while 5 had the youth. The 5 countries were Chad, Ivory Coast, Kazakhstan, Liberia and Niger. 127 countries had males while 62 had females.

## **2017**

### *Maximum*

187 countries had the youth while the usual Kazakhstan and Liberia had adults. 125 countries had females while 64 had males.

### *Minimum*

185 countries had adults and 4 had the youth. The 4 were Chad, Kazakhstan, Liberia and Niger. 127 countries had males while 62 countries had females.

## **2018**

### *Maximum*

The same as the previous year except 123 countries had females and 66 had males.

### *Minimum*

The trend remained the same as the previous year.

## **2019**

### *Maximum*

187 countries had youth while the usual Kazakhstan and Liberia had adults. 124 countries had females while 65 had males.

### *Minimum*

185 countries had adults while 4 had youth, the 4 being Chad, Kazakhstan, Liberia and Niger. 130 countries had males while 59 had females

## **2020**

### *Maximum*

187 countries had youth while the usual Kazakhstan and Liberia had adults. 131 countries had females while 58 had males.

### *Minimum*

186 countries had adults while 3 had youth, the 3 being Chad, Kazakhstan and Liberia. 123 countries had males while 66 had females.

## **2021**

### *Maximum*

187 countries had youth while the usual Kazakhstan and Liberia had adults. 131 countries had females while 58 had males.

### *Minimum*

185 countries had adults while 4 had youth. The 4 are Kazakhstan, Chad, Liberia and Niger. 123 had males while 66 had females.

## **2022**

### *Maximum*

187 countries had youth while the usual 2 had adults. 130 countries had females while 59 had males.

### *Minimum*

185 countries had adults while 4 countries had youth. The 4 are Chad, Kazakhstan, Liberia and Niger. 130 countries had males while 59 had females.

## **2023**

### *Maximum*

187 countries had youth while the usual 2 had adults. 122 countries had females while 67 had males.

*Minimum*

185 countries had adults while 4 had youth. The 4 are Chad, Kazakhstan, Liberia and Niger. 130 countries had males while 59 had females.

**2024**

*Maximum*

187 countries had youth while the usual 2 had adults. 124 countries had females while 65 had males.

*Minimum*

185 countries had adults while 4 had youth. The 4 are Chad, Kazakhstan, Liberia and Niger. 131 countries had males while females had 58.

***Maximum***

Liberia and Kazakhstan have consistently had adults with the highest unemployment rate while the rest of the countries had youth. Approximately 2/3 of the countries have females having the highest unemployment rate while the remaining 1/3 have males having the highest unemployment rate.

***Minimum***

Liberia and Kazakhstan still appear on the odd end of the spectrum. They are frequently joined by Niger and Chad and once by Ivory Coast. While the rest of the countries have adults having the lowest unemployment rate, they have youth having this property.

***Averages per year with respect to age group , sex and both age group  
& sex***

***2014***

Index	Sex	Age Categories	2014
0	Female	Adults	7.566878
1	Female	Children	9.521116
2	Female	Youth	20.435132
3	Male	Adults	5.922524
4	Male	Children	7.608074
5	Male	Youth	17.273074

Index	Sex	2014
0	Female	12.507709
1	Male	10.267891

Index	Age Categories	2014
0	Adults	6.744701
1	Children	8.564595
2	Youth	18.854103

***2015***

Index	Sex	Age Categories	2015
0	Female	Adults	7.543069
1	Female	Children	9.459386
2	Female	Youth	20.237407
3	Male	Adults	5.863529
4	Male	Children	7.509635
5	Male	Youth	17.021640

Index	Sex	2015
0	Female	12.413287
1	Male	10.131601



Index	Age Categories	2015
0	Adults	6.703299
1	Children	8.484511
2	Youth	18.629524

## 2016

Index	Sex	Age Categories	2016
0	Female	Adults	7.446280
1	Female	Children	9.336857
2	Female	Youth	20.091085
3	Male	Adults	5.764254
4	Male	Children	7.374212
5	Male	Youth	16.725090

Index	Sex	2016
0	Female	12.291407
1	Male	9.954519

Index	Age Categories	2016
0	Adults	6.605267
1	Children	8.355534
2	Youth	18.408087

## 2017

Index	Sex	Age Categories	2017
0	Female	Adults	7.312688
1	Female	Children	9.149899
2	Female	Youth	19.828688
3	Male	Adults	5.567730
4	Male	Children	7.117984
5	Male	Youth	16.204106

Index	Sex	2017
0	Female	12.097092
1	Male	9.629940

Index	Age Categories	2017
0	Adults	6.440209
1	Children	8.133942
2	Youth	18.016397

**2018**

Index	Sex	Age Categories	2018
0	Female	Adults	7.040540
1	Female	Children	8.800593
2	Female	Youth	19.279847
3	Male	Adults	5.362407
4	Male	Children	6.860762
5	Male	Youth	15.754847

Index	Sex	2018
0	Female	11.706993
1	Male	9.326005

Index	Age Categories	2018
0	Adults	6.201474
1	Children	7.830677
2	Youth	17.517347

**2019**

Index	Sex	Age Categories	2019
0	Female	Adults	6.996122
1	Female	Children	8.696021
2	Female	Youth	18.919730
3	Male	Adults	5.208979
4	Male	Children	6.665026
5	Male	Youth	15.380836

Index	Sex	2019
0	Female	11.537958
1	Male	9.084947

Index	Age Categories	2019
0	Adults	6.103550
1	Children	7.680524
2	Youth	17.150283

**2020**

Index	Sex	Age Categories	2020
0	Female	Adults	7.795714
1	Female	Children	9.739407
2	Female	Youth	21.932302
3	Male	Adults	6.190683
4	Male	Children	7.765942
5	Male	Youth	17.683661

Index	Sex	2020
0	Female	13.155808
1	Male	10.546762

Index	Age Categories	2020
0	Adults	6.993198
1	Children	8.752675
2	Youth	19.807981

**2021**

Index	Sex	Age Categories	2021
0	Female	Adults	7.750799
1	Female	Children	9.522381
2	Female	Youth	20.848032
3	Male	Adults	6.001286
4	Male	Children	7.492106
5	Male	Youth	16.921265

Index	Sex	2021
0	Female	12.707071
1	Male	10.138219

Index	Age Categories	2021
0	Adults	6.876042
1	Children	8.507243
2	Youth	18.884648

## 2022

Index	Sex	Age Categories	2022
0	Female	Adults	7.086613
1	Female	Children	8.699909
2	Female	Youth	19.016441
3	Male	Adults	5.270994
4	Male	Children	6.642845
5	Male	Youth	15.392993

Index	Sex	2022
0	Female	11.600988
1	Male	9.102277

Index	Age Categories	2022
0	Adults	6.178804
1	Children	7.671377
2	Youth	17.204717

## 2023

Index	Sex	Age Categories	2023
0	Female	Adults	6.924269
1	Female	Children	8.500808
2	Female	Youth	18.527637
3	Male	Adults	5.132553
4	Male	Children	6.503724
5	Male	Youth	15.173408

Index	Sex	2023
0	Female	11.317571
1	Male	8.936562

Index	Age Categories	2023
0	Adults	6.028411
1	Children	7.502266
2	Youth	16.850523

## 2024

Index	Sex	Age Categories	2024
0	Female	Adults	6.903312
1	Female	Children	8.466776
2	Female	Youth	18.524325
3	Male	Adults	5.066109
4	Male	Children	6.433893
5	Male	Youth	15.100297

Index	Sex	2024
0	Female	11.298138
1	Male	8.866766

Index	Age Categories	2024
0	Adults	5.984710
1	Children	7.450334
2	Youth	16.812311

The unemployment rate had the lowest representation in 2024 and the highest in 2020. The female youth have consistently topped the charts followed by their male counterparts. Male adults have the least rate of unemployment. The females in general have also consistently had the highest rate, while the youth also have unwaveringly had the highest rate.

### ***Global Average Between 2014 and 2024***

Index	Sex	Age Categories	Average
0	Female	Adults	7.306208
1	Female	Children	9.081196
2	Female	Youth	19.785511
3	Male	Adults	5.577368
4	Male	Children	7.088564
5	Male	Youth	16.239202

Index	Sex	Average
0	Female	12.057638
1	Male	9.635044

Index	Age Categories	Average
0	Adults	6.441788
1	Children	8.084880
2	Youth	18.012356

Since 2014 to 2024, the female youth have been the most unemployed, owning 19.79%. Their male counterparts follow a little closely at 16.24%. The others had percentages lower than 10%. Females have a higher unemployment rate at 12.06%

while males have 9.64%. Youth are the most disadvantaged with their unemployment figure standing at 18.01%, children coming 2<sup>nd</sup> at a distance with 8.08% followed by adults at 6.44%.

## **DISCUSSION AND CONCLUSION**

Liberia's and Kazakhstan's maximum unemployment rates could possibly denote that the older generation aren't as skilled like the younger generation. The older generation may not have had the same opportunities the young generation are currently enjoying. It could also mean when the older generation was growing, the economy may not have been in the best state which may have hindered their chances for employment. The other 3 countries joining them in the minimum side of the unemployment rates seem to show some complexity in their characteristics. These countries especially Niger and Chad may not be able to be evaluated using a straightforward formula.

The females are still a long way back in terms of competing for employment positions with their male counterparts. In the unemployment sphere, females make up at least two thirds of the number. This is worrying especially during a century where women's empowerment has been stressed.

It is encouraging the unemployment rate had its lowest peak in 2024. This might mean the global population is increasingly becoming aware of some employment opportunities that weren't as popular in the past. Perhaps new and somewhat unconventional employment opportunities are coming up and are steadily being embraced.

It is also right to note that unemployment rates peaked in the year 2020 because of the COVID 19 pandemic that had the world at a standstill. People lost their jobs because of restrictions imposed on movement and gatherings in the attempt to combat the spread of the virus.



The youth are the most unemployed which is one of the most sensible piece of information from this data. The population is growing and it is quite likely the economy isn't as ready to support this trajectory. Moreover, since the aged population is still holding onto the primary jobs, the youth are finding it hard to get a chance for those particular kinds of jobs. Among the youth, it is clear the female youth are even more disadvantaged. The society may still not regard their ability to do certain kinds of jobs as it does for the males.

