Analysis on Gender Statictics

Team 6- The Outsiders

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Contents

1 Introduction

The World Bank Data Group coordinates statistical and data work and maintains a number of macro, financial and sector databases. The group is guided by professional standards in the collection, compilation and dissemination of data to ensure that all data users can have confidence in the quality and integrity of the data produced.

Gender inequality remains a major barrier to human development. Girls and women have made major strides since 1990, but they have not yet gained gender equity. Women who want to work have a harder time finding a job than men. This problem is particularly marked in developing countries where unemployment rates for women is more than that of developed countries.

Hence, the primary analysis of our report is to compare and contrast the gender statistic in developed countries like **United States & France** and developing countries like **Colombia and Egypt** from the years 2010 to 2019 on various factors like:

- The section 1 of the report contains comparison of **inflation, gender distribution for labour force and life expectancy** in various countries.

- The section 2 of the report contains gender work flow distribution and **gender work flow comparison in various sectors like agriculture, industry and service**

- The section 3 of the report contains the analysis on the total unemployment difference between males and females and **analysis on the basis of qualifications in developed and developing countries.**

2   Analysis

1

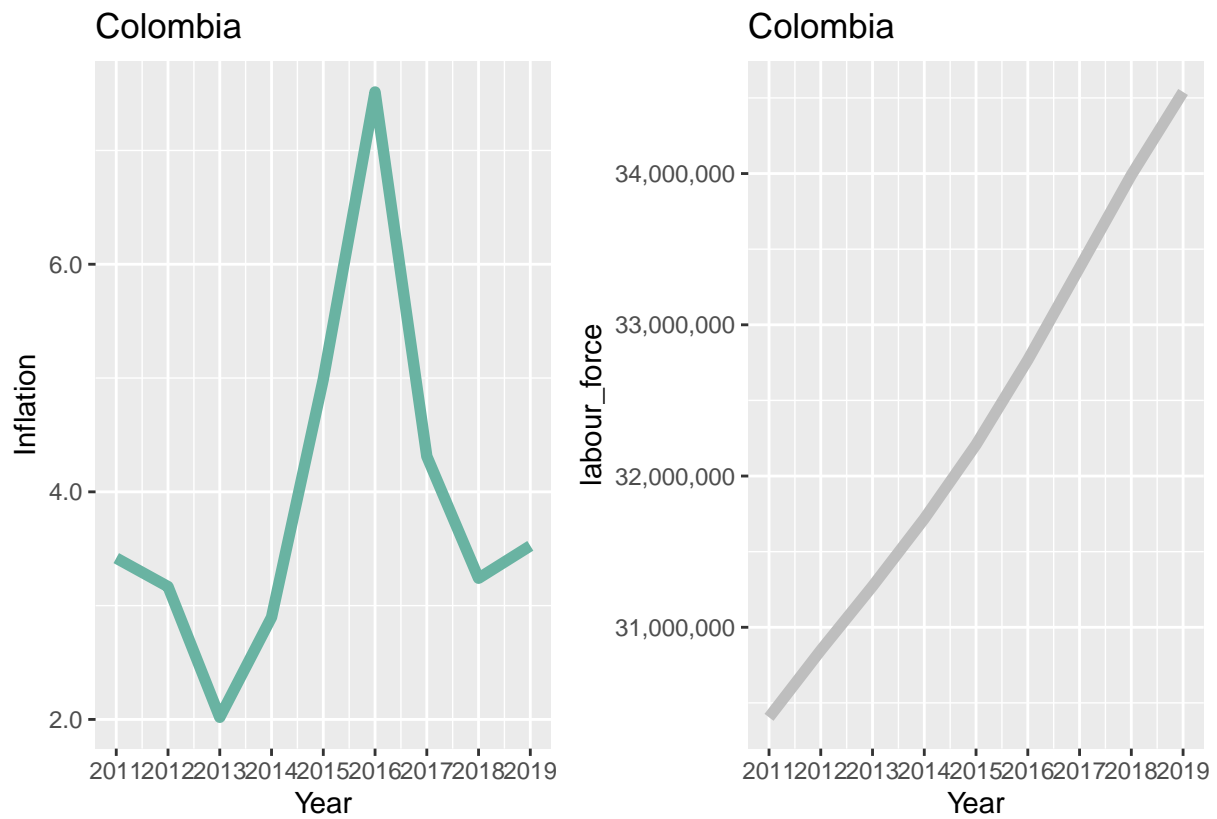## 2.1   Inflation

[[1]]

Figure 1: Inflation vs Labour force
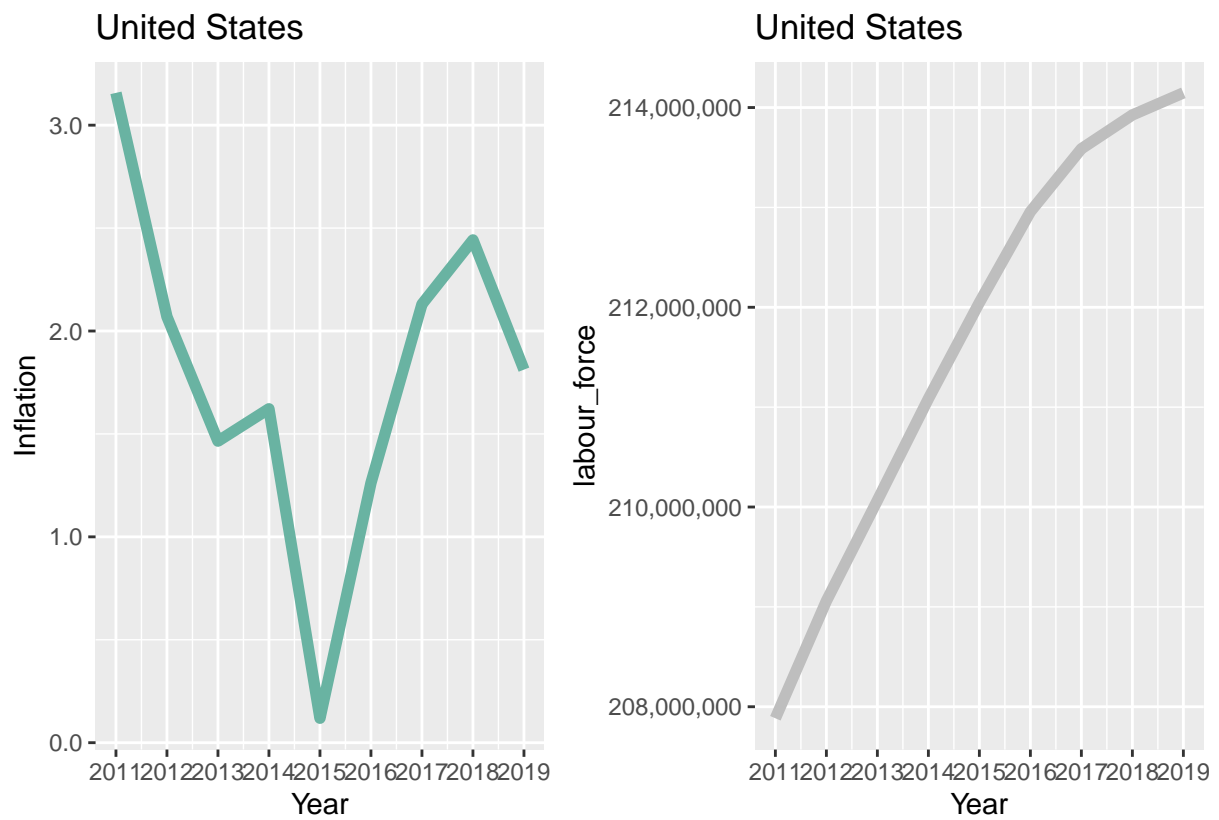
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## [[2]]

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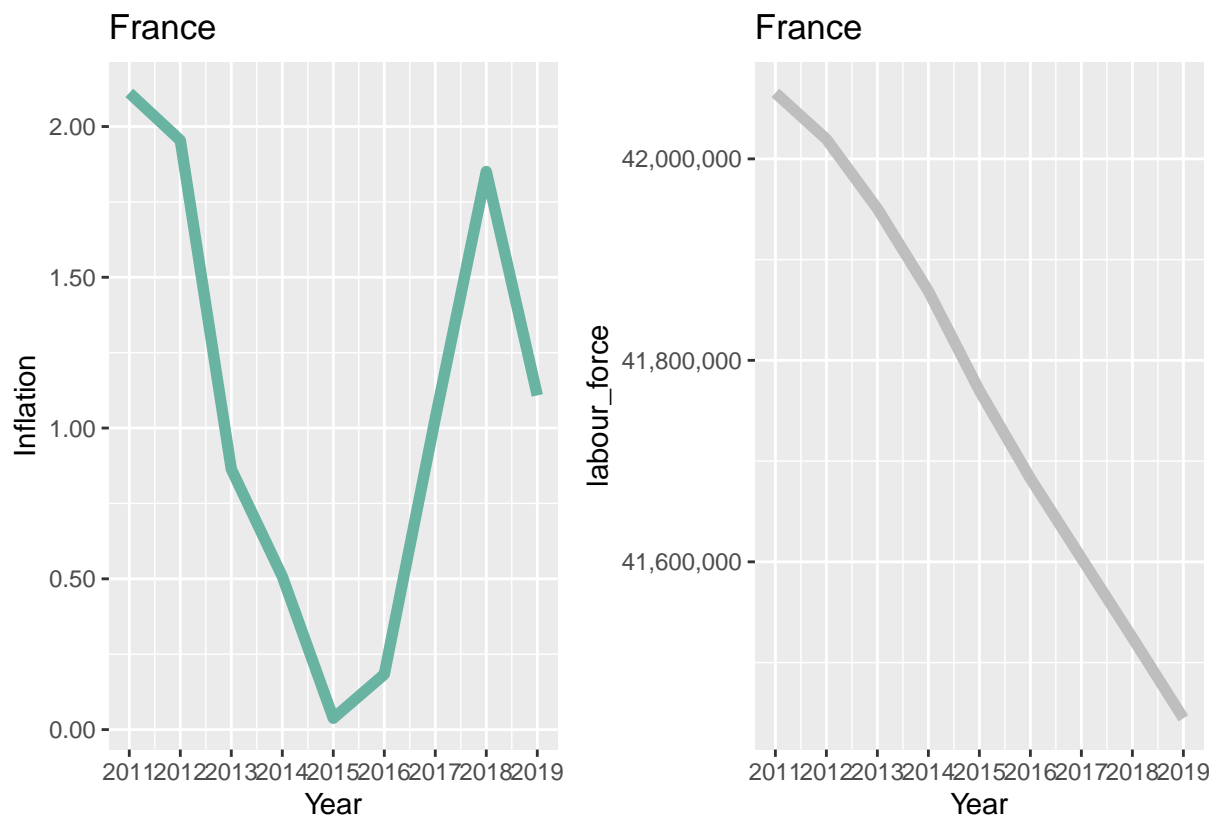
Figure 2: Inflation vs Labour force
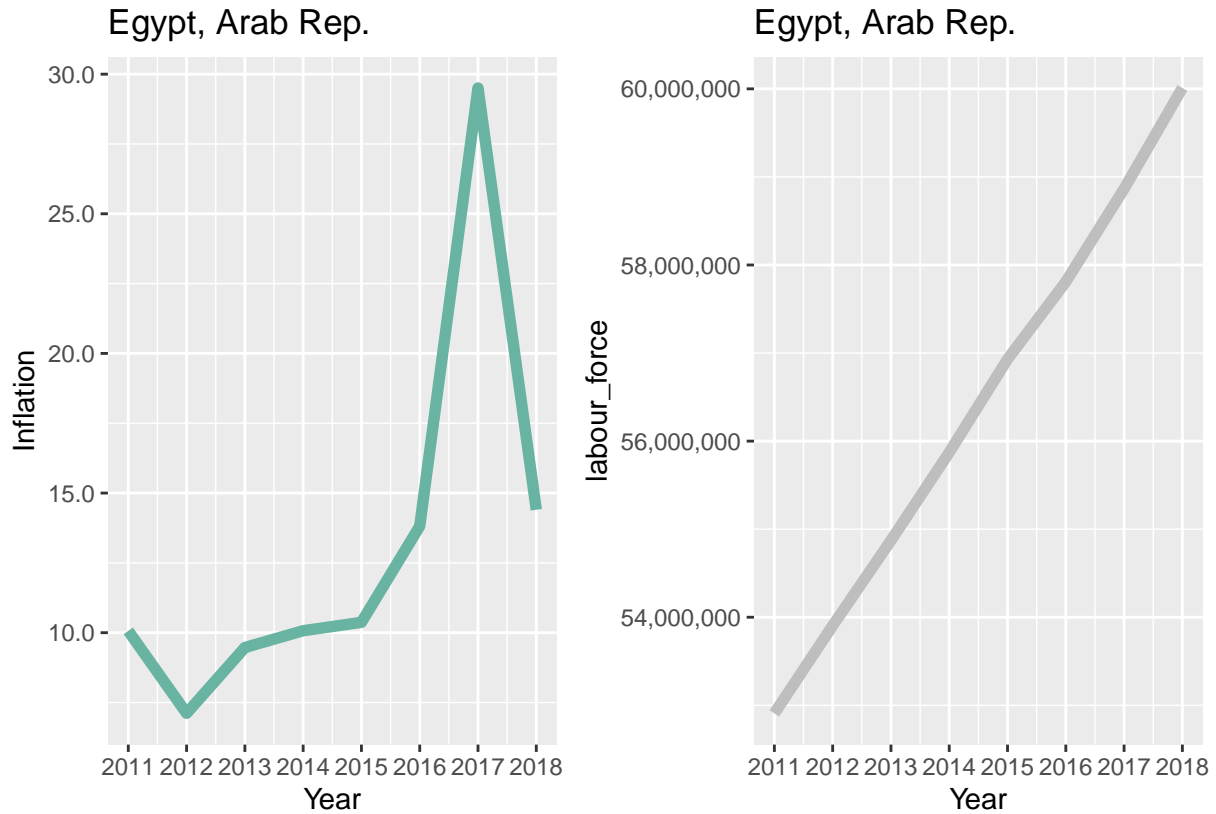
Figure 3: Inflation vs Labour force

Table 1: Inflation and the labour force in 2015

Country Name	Year	Inflation	labour_force
Colombia	2015	4.9902343	32207438
United States	2015	0.1186271	212046898
France	2015	0.0375144	41770007
Egypt, Arab Rep.	2015	10.3704903	56930104

According to Figure@ref(fig:A1), developed countries such as United States and France both have the lowest inflation rate in 2015. This is because in 2015, the crude oil price collapsed. (Stocker, Baffes, and Vorisek 2018), and the global economy has not recovered from the GFC yet (Mutikani 2016).

Moreover, low inflation rate does not mean the currency is more valuable. On the contrary, it signals demand for goods and services is lower than expected and will then result in recession and the an increase in unemployment (Warr 2019).

Additionally, developed countries usually have more stable inflation rate than developing countries. This is to keep the economy and the currency stable.

Table @ref(tab:A2) shows the 2015 inflation rate.

2.2 Gender distribution for labour force

Moreover, the labour force in each country is increasing but decreasing in France. We will take a deeper look in the employment and unemployment in the following sections and try to conclude why the labour force for France is decreasing.

Let's also look at the gender distribution in the labour force.
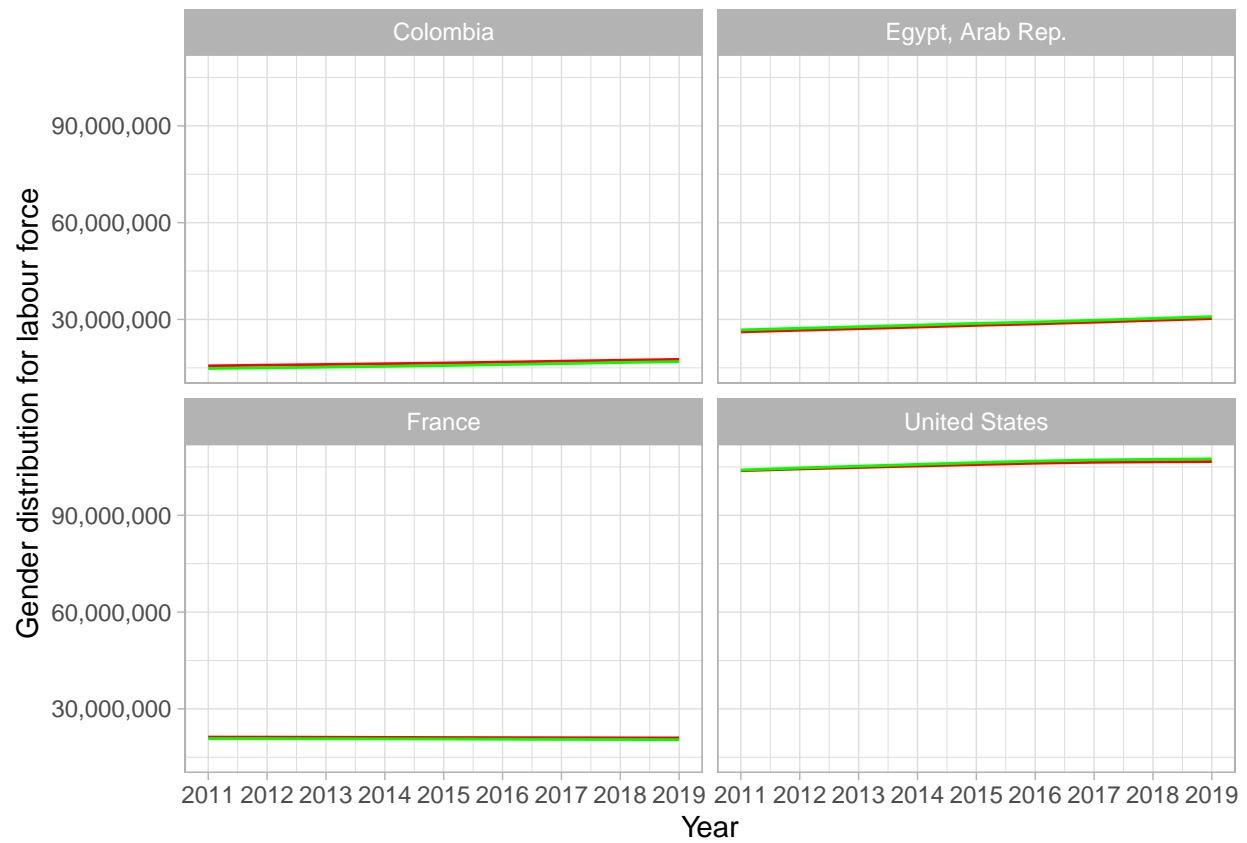
Figure@ref(fig:A3) shows the lines for female labour force and the male labour force are almost overlapped with each other, meaning the gender distribution for labour force is fairly equal in these countries.

2.3   Life expectancy for female and male at birth
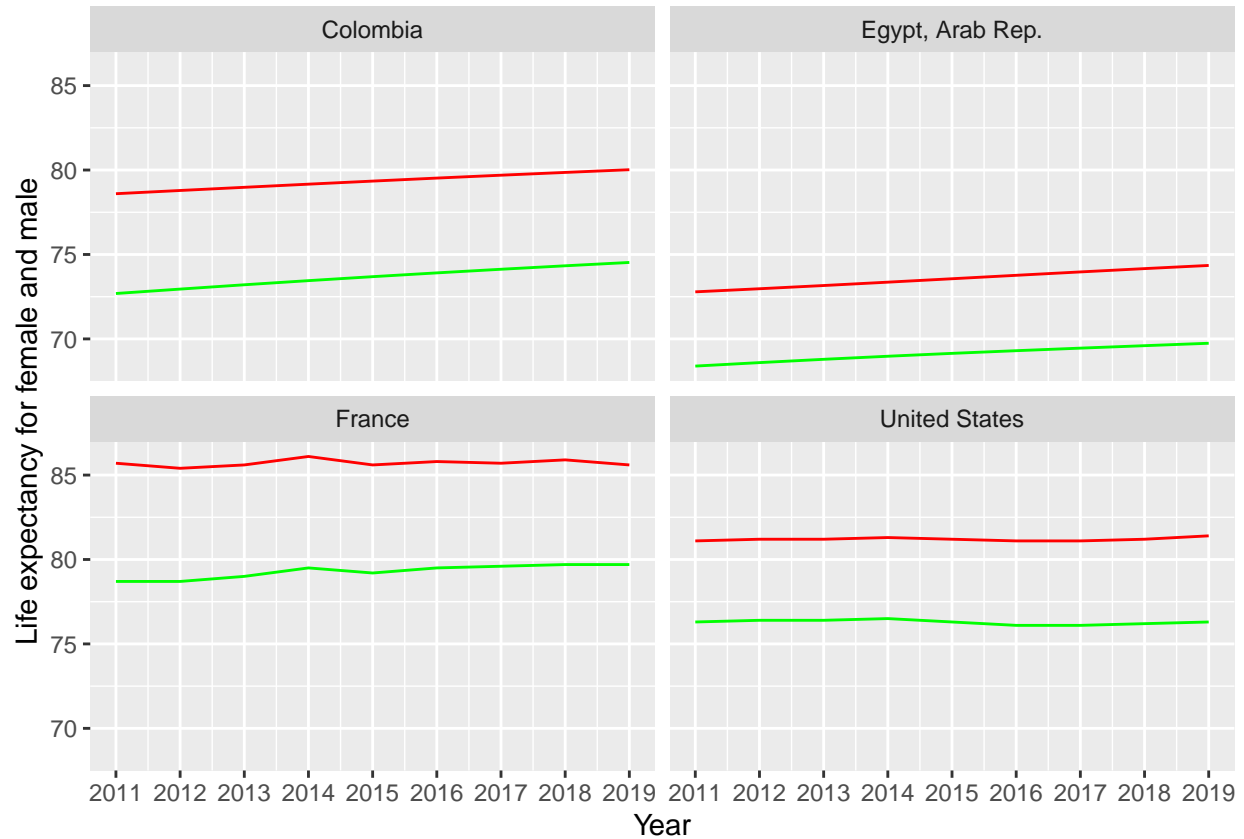
Figure@ref(fig:A4) shows the life expectancy for female is obviously higher than male. More interestingly, US and France are having a stable life expectancy from 2011 til 2019, while in Egypt and Colombia, the life expectancy for both genders is increasing.

2

2.4   Employment Analysis by Country

The core analysis of this report is to analyze the different workforce distribution among high and low income countries and the gender distribution inside them. High income countries such as United States and France and low income such as Colombia and Egypt were taken into account to evaluate the labor force condition and the general trends of the citizens performing jobs in agriculture, industry and services jobs.

Having a closer look to the data, the distribution in the job market according to the gender and country it is taking part in, tends to variate according to the economy of each country. High income countries such as United States or France manages a similar trend in every industry according to the gender. But also, it can be seen that the rates are different compared to the low income countries.

2.5   High Income Countries Workforce

The higher income countries have, the higher participation in services by males. On the other hand, there is lower concentration in the participation of female in industries that are considered "Masculine" for the time being, agriculture and industry.

For high income countries the similarity in the allocation of workforce among the studies industries is surprisingly similar. in the figure @ref(fig:highinc) USA and France have an average of 67% of male workforce, also, have a similar percentage by 2019 in industry of 30% and in agriculture of 4%.

Generally, females are on top of the chart with about 90% working in services, and with similar rates for agriculture and industry of 1% and 9% respectively.
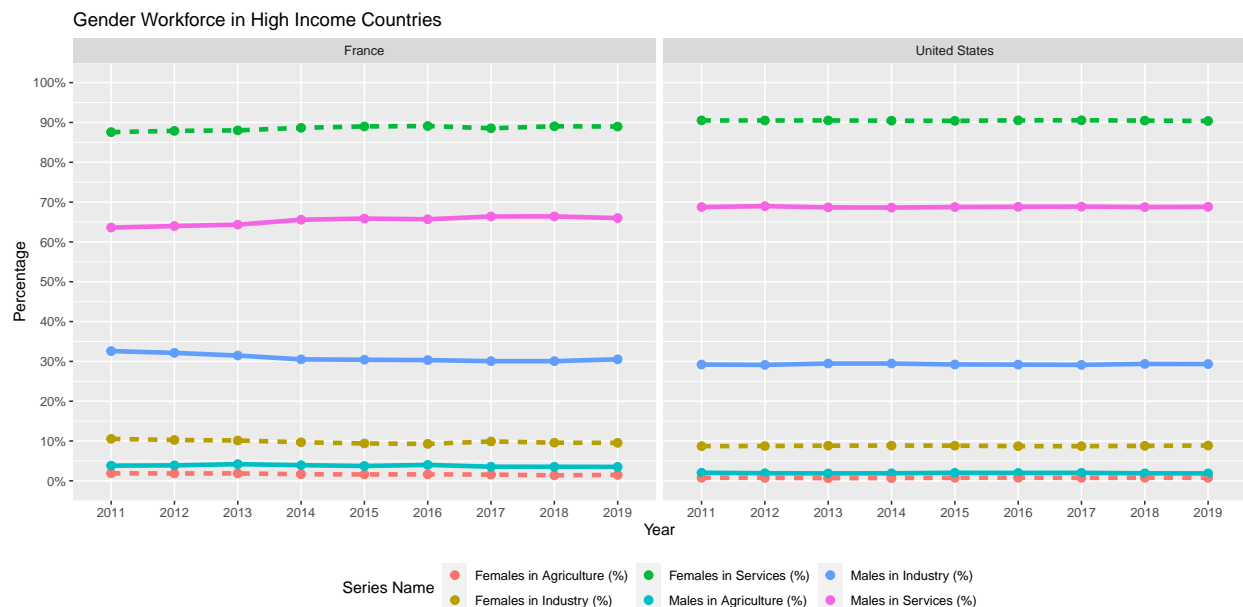
2.6   Low Income Countries Workforce

Males in the job market for low income countries keep similar trends for the jobs in agriculture. In 2019, in Colombia and Egypt got in average 25% of male participation. In industry, Colombia and Egypt have a notorious difference of 25% and 32% respectively.

In the case of females, they keep an average from 10% to 20% in "Masculine" jobs, as per in services, they keep from 50% to 80%. Egypt had a huge decline in the agricultural jobs for females from a 43% to 21%. It

is remarkable this variation along the previous 9 years as well as that the woman workforce seemed to move in the same rate to the services industry as seen in the figure @ref(fig:lowinc) below. (Roser 2013)
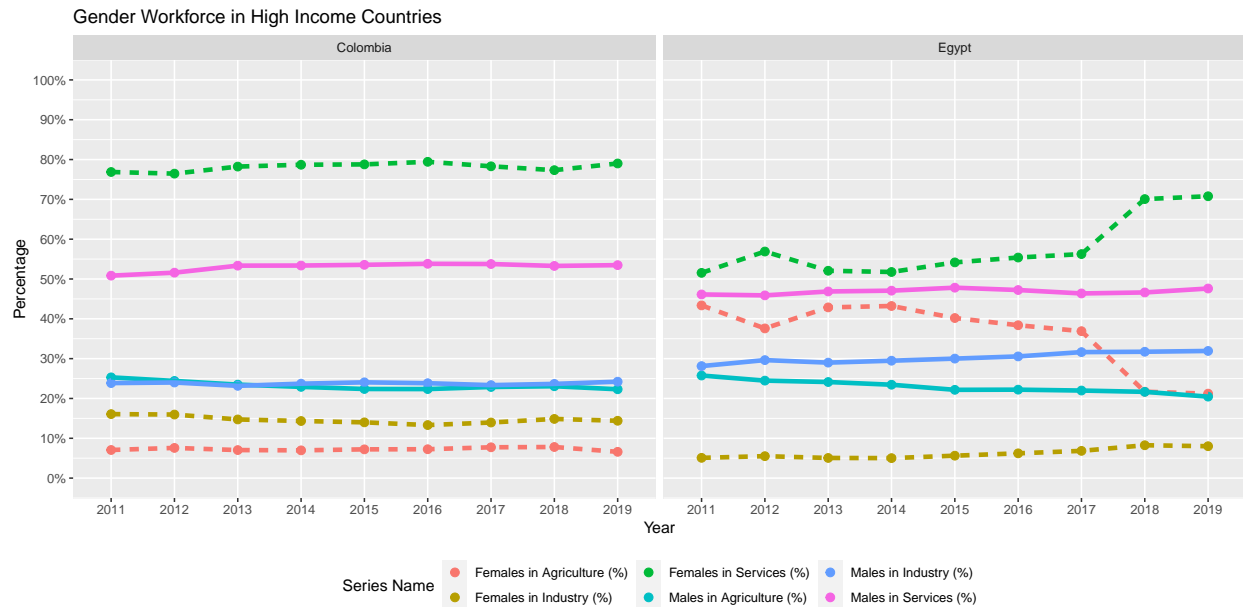

2.7   Gender Workforce Distribution by Country

As seen in the current analysis the economical capacity of the countries can infer in the workforce distribution. In a general view of the selected samples, females have in all of them the highest rate of employment in services as well as the lowest in agriculture, this does not apply in Egypt but the current trend is showing that there is a moving out of that industry.

Similarly, males have the highest level of employment in services, but they keep leading the industry and agricultural workforce. It is noticeable that if a country is wealthy, there is a higher level of participation of females in service jobs compared to low income countries. On the other hand, despite the income level of the country males keep the same percentage among the countries. See figure @ref(fig:allcountries).
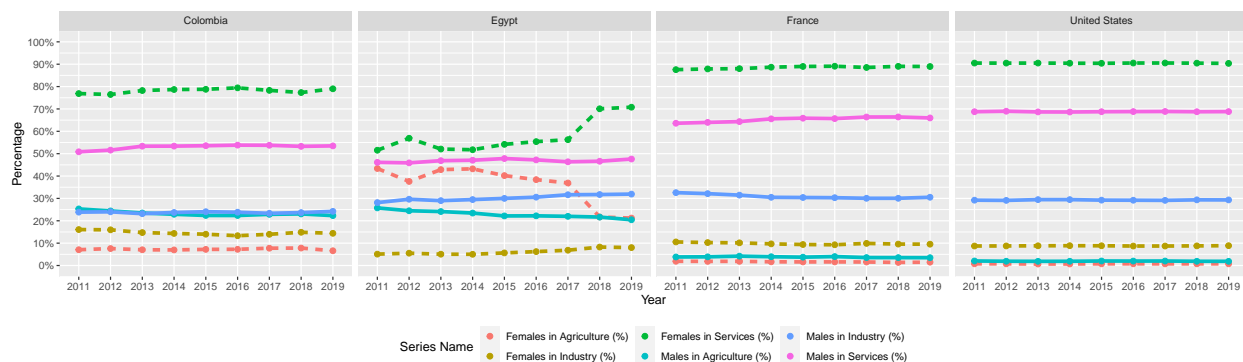

2.8   Gender Workforce Comparison by Industry.

From other point of view and analyzing the variables across all the countries it can be seen that the genders maintain a similar level of employment according to the selected industries.

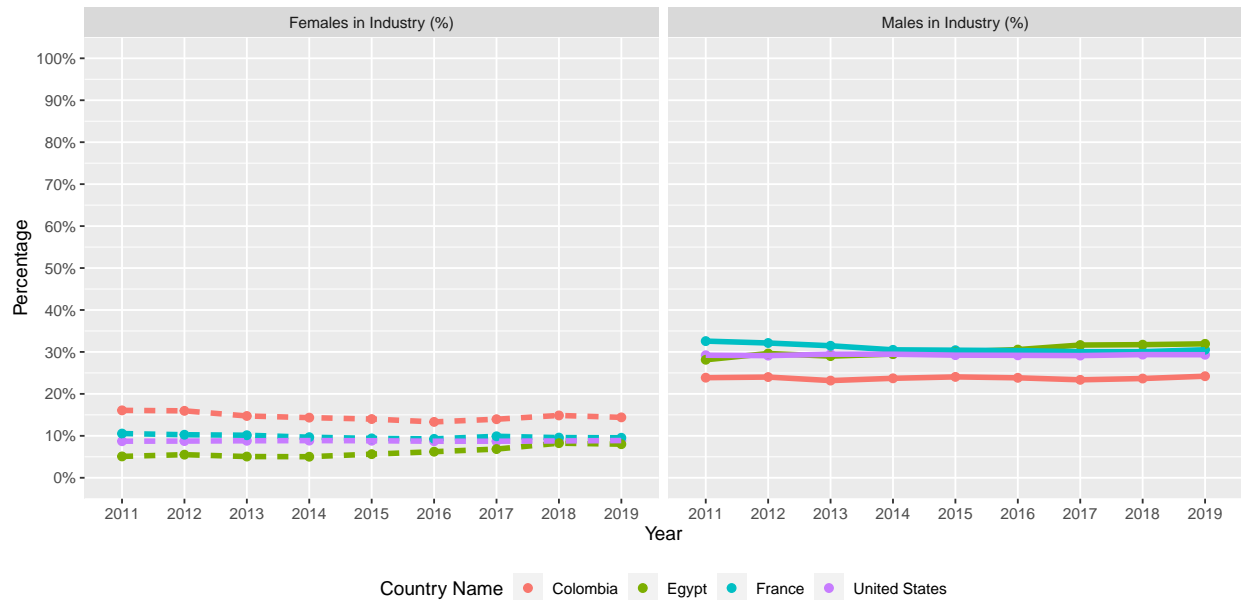## 2.9   Female and Male Employment in Agriculture.

in the figure @ref(fig:agriculture) women keep the lowest participation in agriculture and industry jobs in the selected countries except Egypt which have had a decrease around of 50% during the past 9 years, keeping lowest rates compared to male results. The level of jobs have been steady for males and females during the analyzed years.
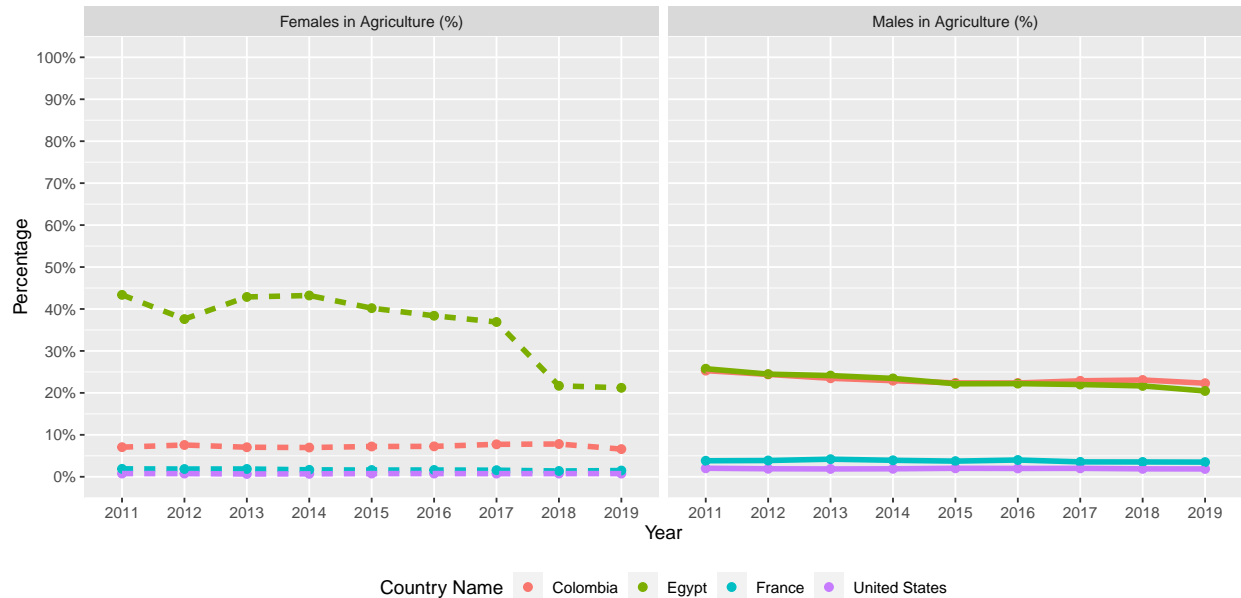
2.10   Female and Male Employment in Industry.

In the case of industry jobs, male keep a highest rate compared to female across the analyzed countries. In 2019 the number of female rose by 5% in Egypt, while in Colombia decreased by 2% and in USA and France maintained the same levels.

In the case of males, all the countries maintained about the same levels since 2011 as seen in the figure @ref(fig:industry).

2.11   Female and Male Employment in Services.

Female have a highest participation in the services sector compared to males and across all the industries.

In general, all the countries kept the same average levels since 2011 and they are in a similar range despite the income level of the country. But, Egypt has an interesting variation of the the jobs allocation. In this case, females in services have rose over 30% in the last years, maintaining the leading over their male peers. In this Industry Egypt has the lowest of people, but the trend keeps a future positive path as well as France. See figure @ref(fig:services).
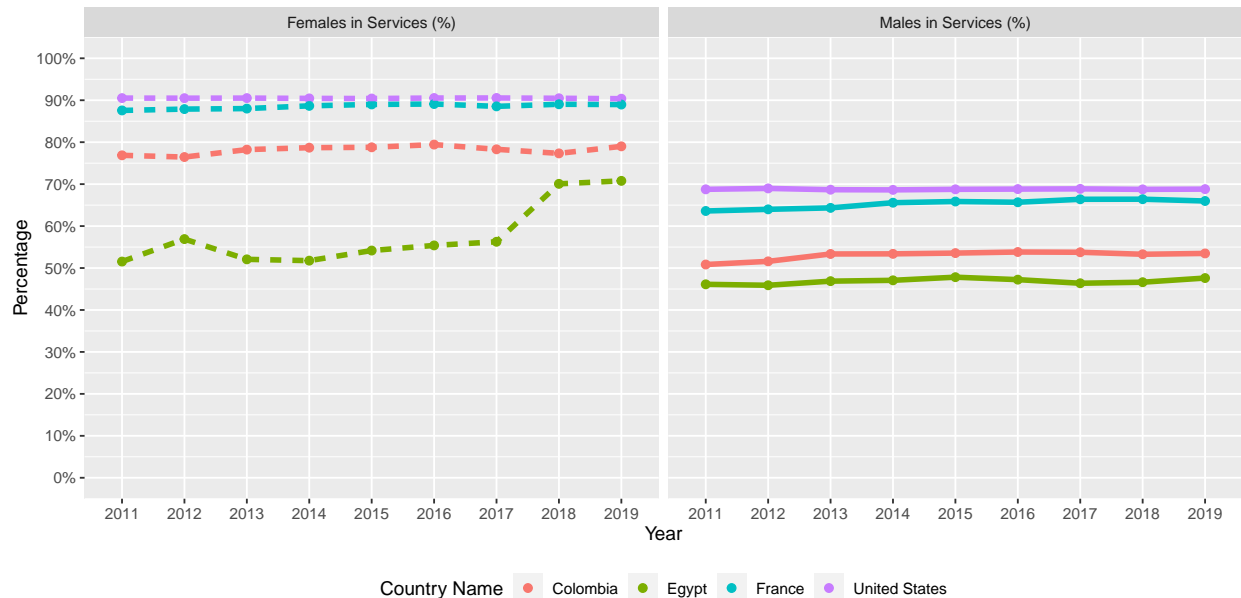
2.12   Gender Workforce by Industry

In summary, females across all countries have lower levels than male occupations in agriculture and industry. On the other hand females have the lead in the services job market, the most notorious case of growth in this

industry was Egypt that in 2019 the percentage of females in this industry was 71%.
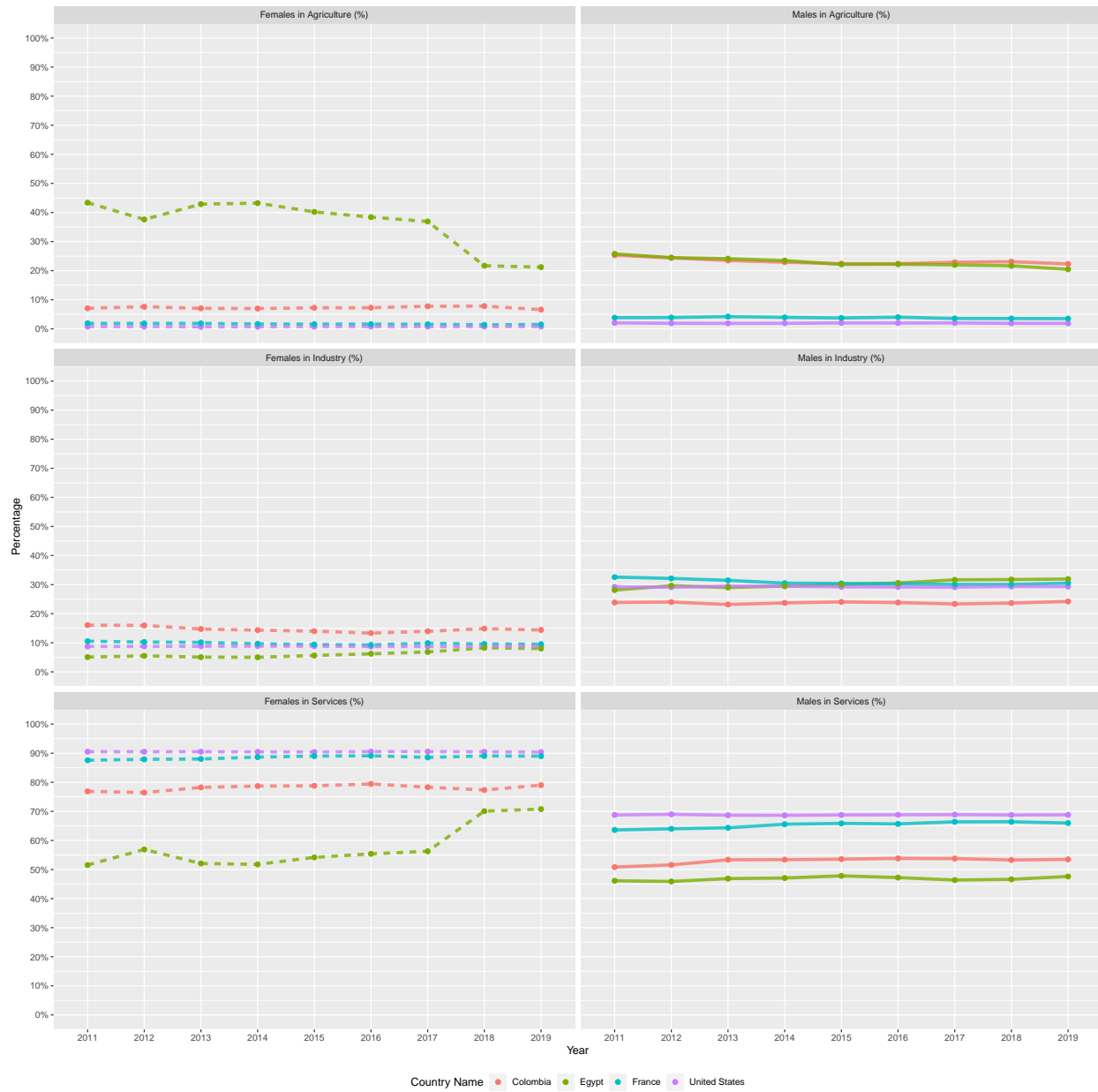
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2.13   Analysis on total unemployed males and females in developing countries

United States & France

Table 2: Unemployed percentage of males and females in Developed countries

Country Name	Year	Unemployed_F	Unemployed_M
France	2011	9.12	8.530000
France	2012	9.36	9.440000
France	2013	9.79	10.040000
France	2014	10.03	10.540000
France	2015	9.91	10.770001
France	2016	9.84	10.220000
France	2017	9.37	9.440000
France	2018	9.05	8.990000
France	2019	8.38	8.500000
United States	2011	8.46	9.370000
United States	2012	7.89	8.229999
United States	2013	7.08	7.640000
United States	2014	6.06	6.260000
United States	**2015**	**5.18**	**5.370000**
United States	2016	4.79	4.940000
United States	2017	4.31	4.400000
United States	2018	3.84	3.950000
United States	2019	3.61	3.720000

Colombia & Egypt, Arab Rep.

Table 3: Unemployed percentage of males and females in Developing countries

Country Name	Year	Unemployed_F	Unemployed_M
Colombia	2011	13.10	7.910000
Colombia	2012	12.66	7.550000
Colombia	2013	11.67	7.070000
Colombia	2014	11.03	6.720000
Colombia	2015	10.84	6.360000
Colombia	2016	11.21	6.780000
Colombia	2017	11.51	6.870000
Colombia	2018	11.79	7.090000
Colombia	2019	12.75	7.880000
Egypt, Arab Rep.	2011	22.44	8.770001
Egypt, Arab Rep.	2012	24.01	9.229999
Egypt, Arab Rep.	2013	24.17	9.800000
Egypt, Arab Rep.	2014	24.00	9.729999
Egypt, Arab Rep.	**2015**	**24.81**	**9.390000**
Egypt, Arab Rep.	2016	23.58	8.840000
Egypt, Arab Rep.	2017	23.01	8.220000
Egypt, Arab Rep.	2018	21.34	6.770000
Egypt, Arab Rep.	2019	NA	NA

From table @ref(tab:tabref) and table @ref(tab:tabref1) we can summarize that clearly the percentage of female unemployment is way *more in developing countries* than that of the *developed countries* like US and France. For instance, in **2015** the reported percentage of females unemployed in United States was just 5% where as it was 24 percentage in developing countries like Egypt.

The gap in participation rates between men and women is narrowing in developed countries but continues to widen in developing countries, as we can observe that the percentage is almost equal for both males and females in US and France where as in Columbia and Egypt,the employment rate is more for men than women.(Office 2018)

Another interesting observation from table @ref(tab:tabref) and table @ref(tab:tabref1) was seen that the overall unemployment tread in the developing countries is more than that of developed countries. The basic cause of this can be the deficiency of the availability of essential consumer goods, often called wage goods (Economic Co-operation and (OECD) 2010).

2.14 Analysis on unemployed males and females on the bases of qualifications
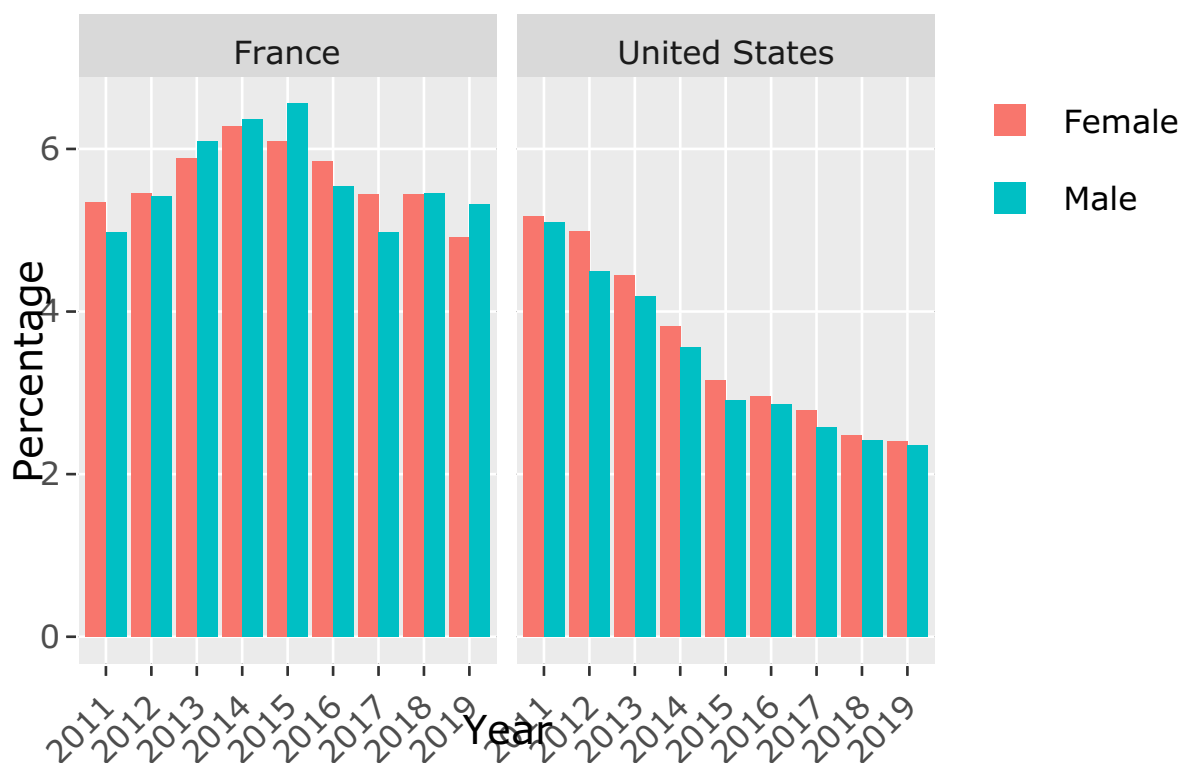
Advance Education

Figure 4: Unemployment with advanced education in developed countries

Figure @ref(fig:Advancedeved) shows the unemployment percentage of males and females with advanced education in developed countries like United states and France.

Figure @ref(fig:Advancedeving) shows the unemployment percentage of males and females with advanced education in developing countries like Colombia and Egypt.
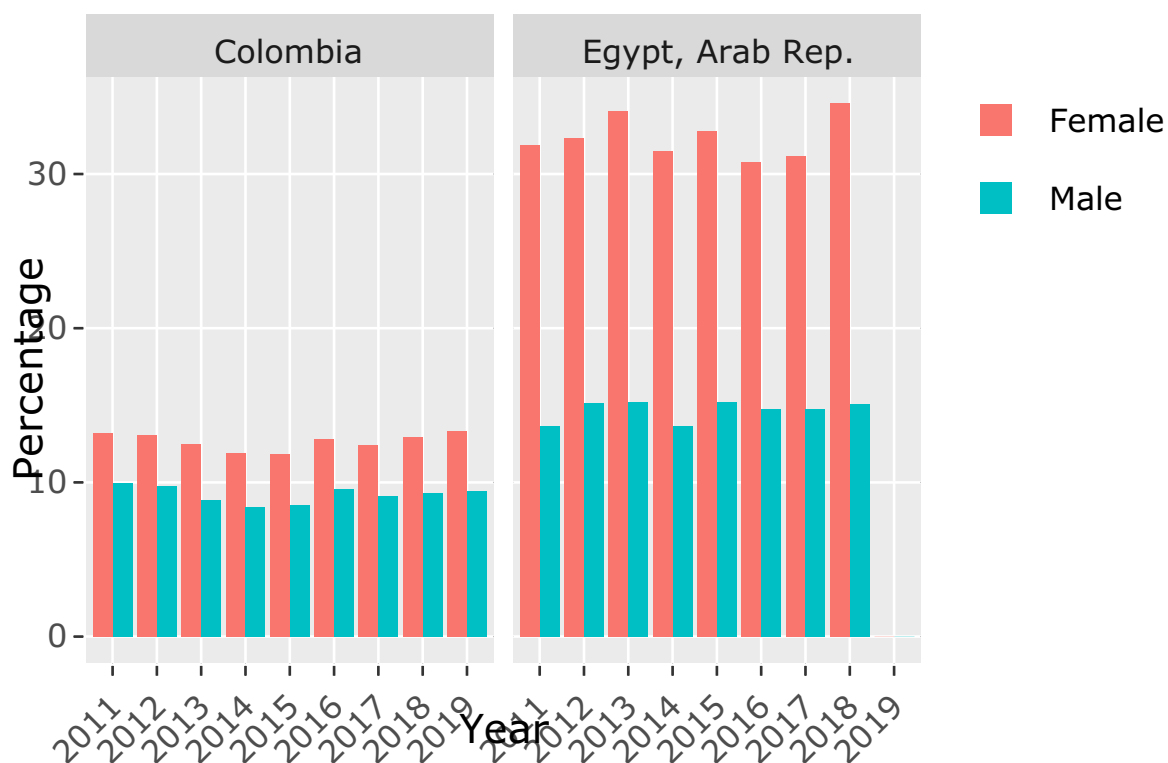
Figure 5: Unemployment with advanced education in developing countries

- Unemployment rates fall with higher educational attainment. As shown in figures @ref(fig:Advancedeved) and @ref(fig:Advancedeving) we can see that the overall percentage of unemployment is between 2% to 6% in developed countries and close to 10% in developing countries.

- Moreover the difference between the ratio of males and females unemployed is also low with advanced education for all countries except Egypt, where the difference is close to 15%. Possible reasons for that include the high cost of childcare, the expectation that women carry out the majority of household responsibilities, negative attitudes toward women in the workplace, lack of mobility, legal barriers, persistent wage gaps, sexual harassment in the workplace, and poor enforcement of anti-discrimination laws (Constant et al. 2020)
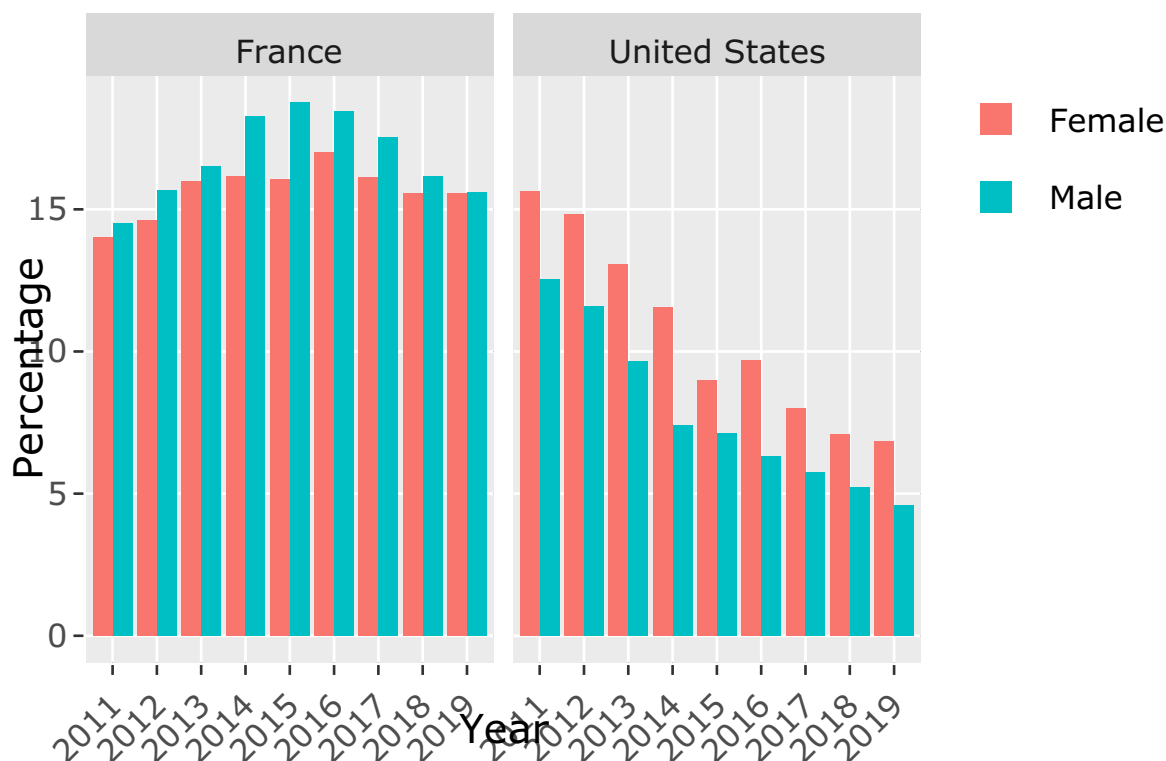
Basic Education

Figure 6: Unemployment with basic education in developed countries

Figure @ref(fig:Basicdeved) shows the unemployment percentage of males and females with basic education in developed countries like United states and France.

Figure @ref(fig:Basicdeving) shows the unemployment percentage of males and females with basic education in developing countries like Colombia and Egypt.

- It is interesting to see that the percentage of unemployment of males is more than that of females for all the years in France @ref(fig:Basicdeved).

- Figure @ref(fig:Basicdeving) Egypt shows that with just basic education the percentage of unemployment can decrease. The gap between males and females unemployment has gone down from 9% to almost 3% over the years.
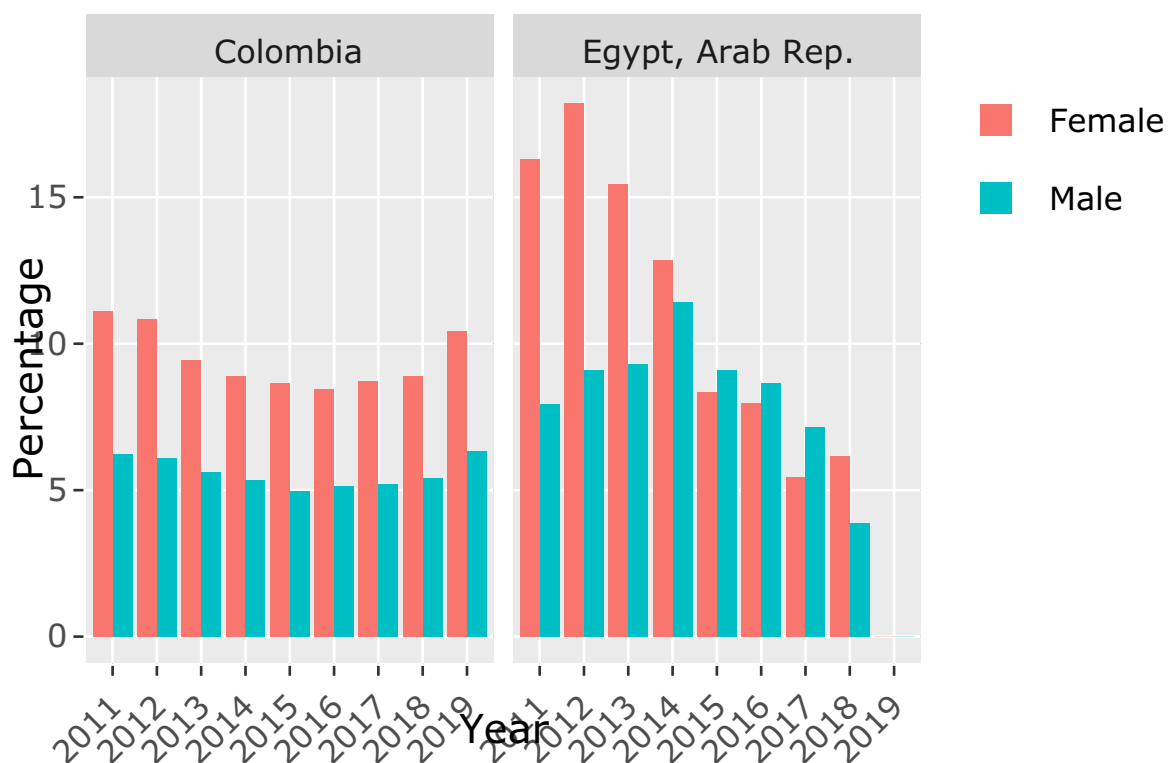
Figure 7: Unemployment with basic education in developing countries
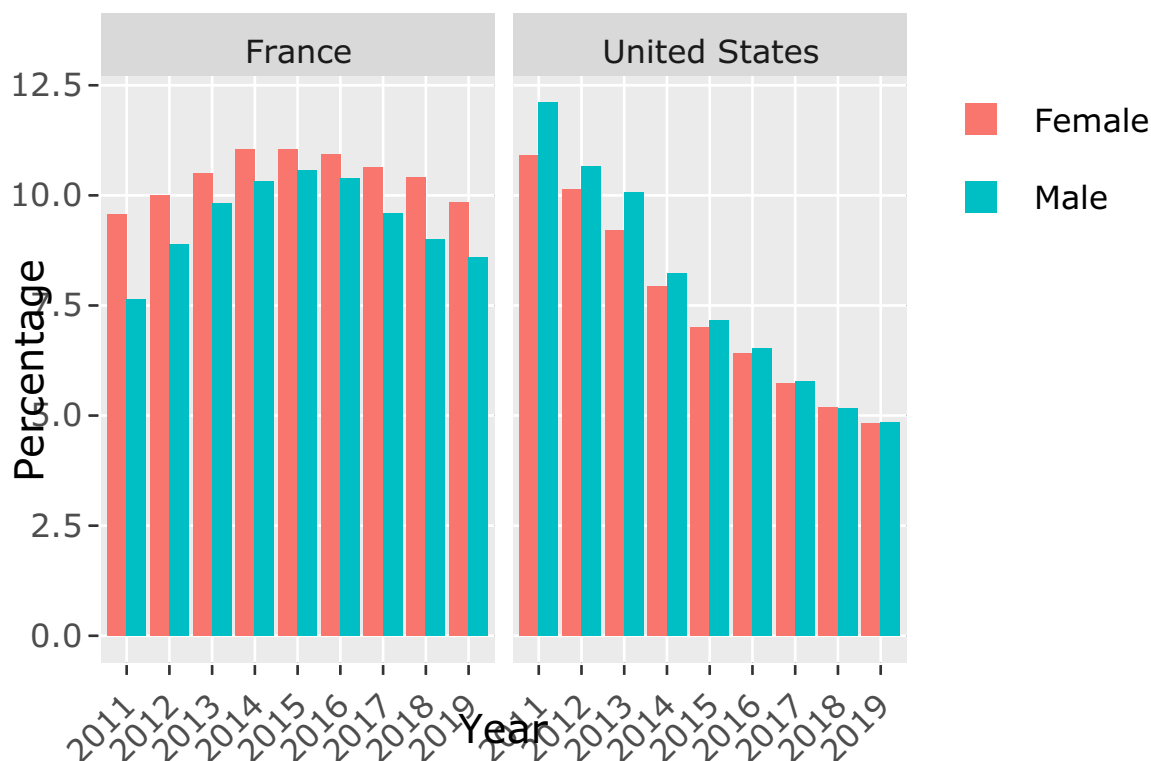
Intermediate Education

Figure 8: Unemployment with intermediate education in developed countries

Figure @ref(fig:Intermediatedeved) shows the unemployment percentage of males and females with intermediate education in developed countries like United states and France.

Figure @ref(fig:Intermediatedeving) shows the unemployment percentage of males and females with intermediate education in developing countries like Colombia and Egypt.

- Those with low educational attainment **intermediate education** are both less likely to be labor force participants and more likely to be unemployed. The greatest gender differences in unemployment rates are seen among adults with lower levels of education as shown in figure @ref(fig:Intermediatedeving). The percentage of female unemployment is close to 30% in females whereas its 11% for males

- Whereas in developed countries even though the percentage of unemployment is high with intermediate education, its satisfying to see that it is almost equal for both males and females @ref(fig:Intermediatedeved). (Economic Co-operation and (OECD) 2010)
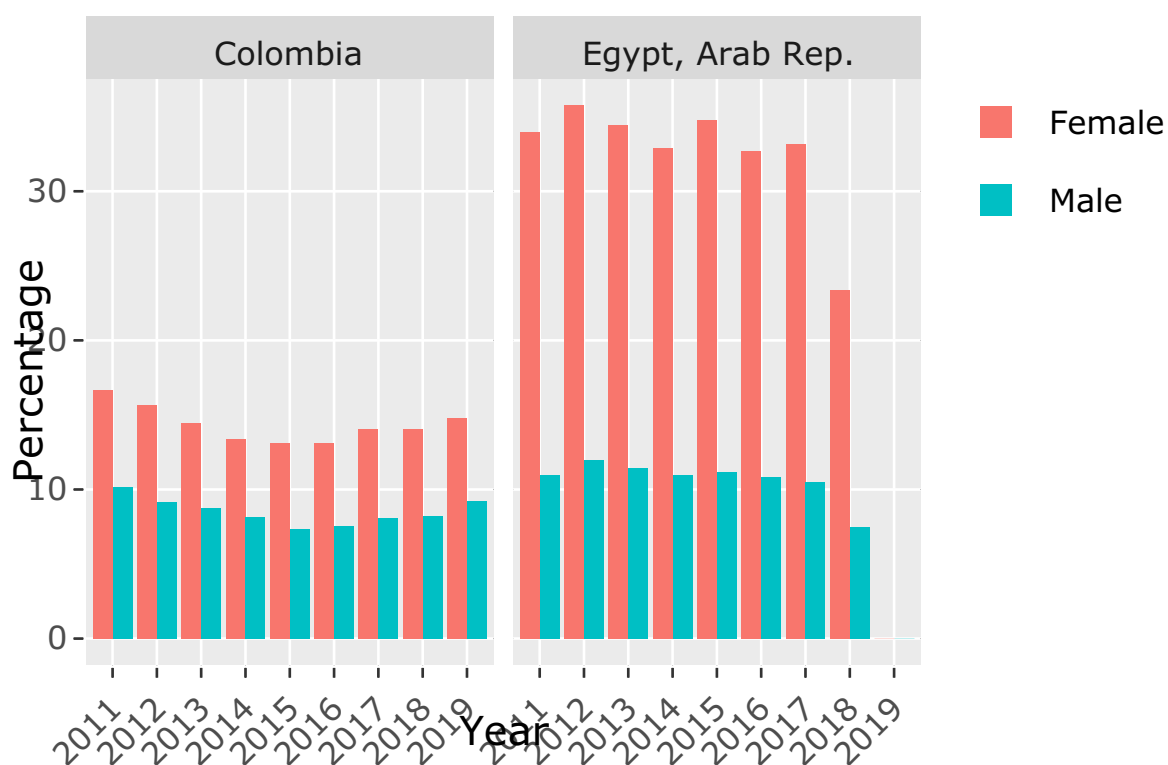
Figure 9: Unemployment with intermediate education in developing countries

3   Conclusion

With the help of our analysis, we can conclude that even though the gap between males and females is reducing in developed countries in terms of employment, it is important that equal opportunities are given to the female gender in the developing countries as well. As with this many developing countries would also see their average annual GDP growth increase.

In regards of the employment in high and low income countries, it can be seen that females are always leading the services sector and in the case of males, industry and agriculture take the highest number of workers. But overall, the highest income level, the lowest the amount of people working in industries such as industry or agriculture.

References

Constant, Louay et al. (2020). *Barriers to Employment that Women Face in Egypt: Policy Challenges and Considerations.* RAND.

Economic Co-operation, Organisation for and Development (OECD) (2010). *Education at a glance 2010: OECD indicators.* OECD Paris.

Mutikani, Lucia (2016). "Weak U.S. inflation, housing data lower March rate hike chances". In: *reuters.* https://www.reuters.com/article/us-usa-economy-inflation-idUSKCN0UY1LH.

Office, International Labour (2018). *World employment and social outlook: Trends for women 2018—Global snapshot.*

Roser, Max (2013). "Employment in Agriculture". In: *Our World in Data.* https://ourworldindata.org/employment-in-agriculture.

Stocker, Marc, John Baffes, and Dana Vorisek (2018). "What triggered the oil price plunge of 2014-2016 and why it failed to deliver an economic impetus in eight charts". In: *World Bank. Available at blogs. worldbank. org/developmenttalk/what-triggered-oilprice-plunge-2014-2016-and-why-itfailed-deliver-economic-impetuseight-charts.*

Warr, Richard S. (2019). "Everything you need to know about inflation". In: *World Economic Forum.* https://www.weforum.org/agenda/2019/06/inflation-is-healthy-for-the-economy-but-too-much-can-trigger-a-recession-7d37501704.