

gggg  
*by* Ggg Gggg

---

**Submission date:** 01-Aug-2021 12:19AM (UTC-1000)

**Submission ID:** 1626423511

**File name:** gender-inequality-UK.docx (345.08K)

**Word count:** 7053

**Character count:** 34592

# **Investigating gender inequality in the UK**

**Student Name**

**Student Course**

**Student Number**

## Contents

Abstract .....	3
Introduction .....	3
Inequality in region-wise in UK .....	4
Literature Review .....	5
Education effect on Gender inequality .....	5
Effects of Employment on the gender inequality .....	6
Effects of unequal legal protection on the issue of gender inequality .....	7
Effects of positions of power on the Gender inequality .....	7
Importance of openness of UK government on fighting Gender inequality .....	8
Effects of high population on gender inequality .....	9
Inflation effects on the gender inequality .....	10
Data Selection and General Statistics .....	11
The key variables .....	11
The descriptive statistics .....	18
Correlation Analysis .....	20
Methodology and Results .....	21
The Model .....	22
Results and Findings .....	24
Conclusions .....	25
References .....	27
Appendix .....	28

## Abstract

This paper is aiming at investigating gender inequality in the UK for the past 5 years that is from the year 2016 to year 2021. There have been many cases of inequality world widely and therefore a concern raised to investigate on the issue specifically in UK. This paper tries to determine the existing gap between men and women that has rooted the inequality. The gap is mainly in the field of work and education and therefore the barriers resulting to the inequality are the ones being investigated. According to the research, there is a close relationship between enrollment in education and the inequality in income.

## Introduction

Since the gender inequality issue arose, several researches have been done. The research studies that have been done previously have left some gaps as the conclusions made from these researches have not had enough data for the obstacles resulting to the inequalities. My research findings are to try solving the gaps left by other researches. My research study is based on the people of United Kingdoms and therefore my research is done from United Kingdom. The issue of gender inequality is more concentrated in the fields of work and the education sector. In this research, I will combine the ideas of the researches from other researchers which are related to my research topic with my findings to allow me make conclusions and fill the gaps left by the other studies.

In my research, I will have the study divided into about six sections. One of the sections is the introduction. The section following this is the part that tries to expound more on this inequality topic that has been chosen. This part allows the readers or other researchers using your study to get to understand why the topic was chosen. Next section which is the third part consists of the

analysis of the research findings and also the comparison involving the researches done by other researchers which are related to gender inequality and the findings from my research. These researches for other researchers are referred to as literature review. After the analysis and comparison, the next part, I will discuss the collected data and also the preliminary observation. This should be accompanied with the analysis by use of a descriptive table.

In the fifth section, the methodologies that I have used in collecting my data will all be explained. This part is a very crucial part as it explained how the data was collected. This part will also explain the perfect reasons behind the choosing of the econometric model proposed. This section will also support an analysis which is done in an in-depth manner. The findings will also have regressions done which allows comparison of the regressions. The last part of the research topic will be the conclusion. This part of the study tries to sum up the findings of the study. It also tries to give an opinion of what the researcher has found in the course of the research.

### Inequality in region-wise in UK

Gender inequality in UK remains a very tenacious problem. This has been affecting both the men and women. Whenever people live together, it's very clear that there must be disparities. This explains why in UK there are these cases and there exist no measure to the gender inequality that exists which is below the national level. In UK there exists regional economic structures and these sub-economic structures are believed to contribute to the gender inequality. These subgroups as conclusions from other researches carries their activities based on genders. This explains how the measures for the gender inequalities other than national wide is hard to have them put into practice. It is believed that in UK there exist social classes where most of them are formed from the gender inequalities. The four different regions in United Kingdom which

involves whales, Scotland England and Northern Ireland are said to have experienced these cases in high levels. The study will concentrate more on the England region as it is the largest region with the highest population followed by Scotland and Wales.

## Literature Review

In this part, the literature works from other researchers are introduced. All the variables introduced in this chapter have a greater significance on my study. The variables have an effect on the distribution of income within the country of UK. Later on, there will be some comments on the conclusion that other researchers reached when they were carrying out their research. This chapter will also describe how various factors have effects on gender inequalities. Some of the factors include education, employment, unequal legal protection, Power positions among others.

### Education effect on Gender inequality

Despite the fact that British has tried to its level to fight gender inequality, the cases of gender inequality are still there. For instance, in educational achievement, boys in schools are now struggling very much to keep the competition with the girls unlike in some years ago where boys were always at the lead. The investigation on education as one of the contributors to the gender inequality is to be done especially to the tutors so that they can be examined how they treat the students in school because there might be chances that the tutors treat one gender with superiority than the others.

Nowadays girls are working extra hard to ensure that the mentality is no longer there. UK government is ensuring that the inequality is minimized in the field of education by ensuring that every gender is provided with equal rights. The bare fact is that, inequality in education can lead at early ages when student is still young can lead to the inequality when the pupils grow. The struggle by boys in education was observed in the 2015 test in UK where, of all the students who

sat for the year's exams, 83% of the girls attained at least level 4. The results show that, only 77% of the boys managed at least level four. In the GCSE, the trend never seized because, 10% more girls managed a grade of between A and C as compared to the boys. The inequality in education was to some extent caused by wider society and not structural problem.

Once the boys or girls grows the mentality that their educational achievement is superior than those of their opposite gender, this starts developing the inequality thing. One of the ways in which government is doing to give sponsorship for higher education levels to all students who are qualified regardless of the gender.

### Effects of Employment on the gender inequality

Discrimination and favoritism in places of work in UK are reportedly increasing. Especially in regions like England where the populations are high and increasing. The investigation is to be done especially in the areas with the high population because it is known that, when the population is high, the chances are high that there are cases of unemployment and therefore, the favoritism, discrimination and other cases of similar kind might be high. This gives a reason for the investigation because the government would wish to have the inequality issue solved as well as the citizens too. Although the number of unemployed in UK is decreasing, there is much importance to carry out the investigation because, the few who are unemployed are having hard times securing a job. In UK, in the month of March 2021, there were approximately five hundred and thirty-nine (539) thousand people who were unemployed aged between 16-24 years of age. Statistics shows that, the young aged people are the most unemployed and this is sad as the young people have all the potential to work better although if they stay unemployed for quite some time they may find themselves contributing to criminal cases which might have been contributed by the favoritism in work places. It is believed that, ladies are more favored

especially when it comes to the field of employment, in some other cases, it is believed that, there are jobs especially the more professional and the masculine jobs gives gents an advantage of securing a job. These are some of the reasons why the investigation is necessary.

### Effects of unequal legal protection on the issue of gender inequality

The issue of unequal legal protection is an issue that needs to be dealt with, with an immediate effect. This is because governments especially in European countries and among them is United Kingdom, are assuming the fair legal protection. Basically, some of the important rights of human beings are being violated to cater for other rights for instance the gays and the lesbians, and prostitution are having their rights catered for while the issues like abortion are being assumed. These issues are making some people's rights get disadvantaged. In other cases, like the less fortunate people are in some cases treated like the fortunate and especially in areas where the treatment should be different. This is making gender and some other forms of inequalities. An investigation will be important so that there can be a strategy to solve this, otherwise, some people will get disadvantaged.

### Effects of positions of power on the Gender inequality

Position of power can lead to the gender inequality. In many cases, those leaders with the power makes judgements to favor their opinions as they know that they can use their powers to fight for what they want. When recruiting employees, some of the leaders in higher positions use their power to give the positions to whoever they want because they are capable of doing that. The government of United Kingdom has used its powers to break law. This is observed in the following ways: The government broke the law regarding the internal market bill which was an intention by the cabinet of ministers in the house of common. The ministers knew that they are part of the government and therefore, they can easily break the laws without even considering the



noble citizen who is depending on the internal local market. The research shows that the government even feared nothing that is they were open enough to show how they could abuse the law. To make the matters worse according to the researcher, the government also got support from the house of common.

Another way that the UK government is abusing its power is in that, it is trying to make itself be beyond the law i.e. it wants to ensure that the law itself cannot make it not do what it wants. They want to have all the powers because s it is known, the government is controlled by the law and if the law won't control it, therefore it becomes the controller of almost everything. The government is limiting service personnel liability for various criminal offences. It also allows secret service agents to break laws especially when it comes to punishing criminal offender. The UK government has widely sought the Henry VIII clauses so that it can expand its powers and this would be easy when it comes to bypassing the parliament. Once the ministers will have the freedom of legislating by decree, they will have no barrier under the constitution. This makes them very powerful. From this research done by Researcher David S., I find it important to do the investigation. The investigation will be aiming at identifying how the abuse of power specifically affects the gender inequality.

### Importance of openness of UK government on fighting Gender inequality

The previous studies done shows that, there are benefits of a government being open in all its activities. This benefit is not only for the government alone but also to the citizens. In UK, according to past studies, there are mixed results on the issue of gender inequality but generally, according to the data collected and the investigations carried, the higher the level of openness of a country, the less the cases of inequality and UK regions including wales and Scotland shows

positive results on the level of openness. In many countries, it has been found that, effects on inequality resulting from international trade are popular. Theories on inequality suggest that when the levels of openness are high the barriers of trade become minimal and this avails more products to the market and also the demand for the products goes high.

According to researcher Davis (1996), openness promotes the increase in the returns of technology i.e. increased in the number of skilled workers and this increases productivity, the quality of the products and reduces criticism and favoritism which among the barriers leading to gender inequality.

### Effects of high population on gender inequality

In the countries with higher population and the income is relatively low, the chances that there are cases of inequality are high. A case like in England where there are high population close to 55.9<sup>8</sup> million, there are higher possibility that gender inequality is high. Past studies show that the increase in population increases the chances of inequality in a country. This gives a greater opportunity and importance to have an investigation in United Kingdom and especially in England region to know how the population has affected the level of inequality.

Families in rural areas gets more children to help them in providing enough labor for raising enough money or rather income to sustain the family. This means that, as a result of desire to have more laborers, the population increases and to the needs for the laborers increases. With this, the poverty levels go high. On the other side, those guys in the urban areas also concentrates with the income too but the means in which they generate money for the families is a bit different. In most cases you will find that, in urban life, there are more expenses and this means that, they need to generate more money under less expenses so they will try to lower the population and increase money sources. The individuals in urban areas have got people in rural

areas as too these rural area people in a way depend on the urban area people. This makes those in urban try all means to make more money and reduce the expenses which may cause their survival in urban areas hard. They also make sure that they make investments on the amount they have so as to generate more money.

### **Inflation effects on the gender inequality**

Inflation cases are very disadvantageous to the families with lower income. This is because, when there is inflation, each person is required to have the consumption of goods substituted with cash. This means that, if there are no cash, the rich who can buy the goods on credit and pay the amount later on will survive comfortably as compared to the individuals with lower family incomes and who are required to pay cash for the goods. This means that, they won't manage to buy the goods if they don't have the cash with them.

It's also clear that, those with higher incomes can manage to hold their cash for long. Therefore, they can even make investments with the amount and therefore, even when the inflation cases arise, they will not face hard time to survive unlike those with lower family incomes who once they receive their little wage, they budget the whole amount being left with debt if not zero amount. In this case, the probability of there being cases of inequality goes to more than 0.5. In UK where there are social classes, it is very possible to have inequality cases including gender inequality cases as the people in different social classes leads are treated differently.

## Data Selection and General Statistics

In this part of our research paper, we are concerned with the used for this study to be successful and how variables that are considered to be key in our models are related to our research question which states “Investigating gender inequality in United Kingdom”. The data sets that have been used in this study have been collected from various data sources including Bloomberg, the World databank, public sites like data.gov and other sources. This data sets have been passed through several analysis of preliminary which involves use of descriptive statistics and a matrix correlation. The analysis done will enable us to acquire insights form our data set and be in a position to identify the factors behind gender inequality practices in United Kingdom.

### The key variables

Gender-related Development Index, Gender Empowerment Measure, Gender Equity Index will be used in this research study to measure the inequality of gender in United Kingdom. These are three indicators that are usually used in measuring gender inequality. The same case applies to the number of indices that are prominent. One of the most indices that is prominent includes the UNDP’s that is gender related development Index and Gender Empowerment Measure.

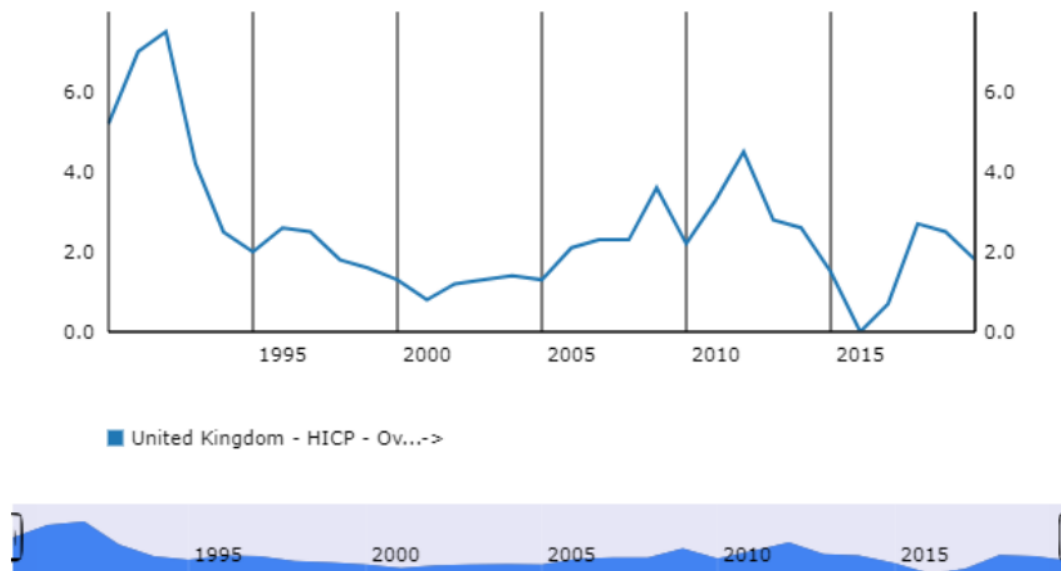


Fig. The graph above shows the rate of (HDI) that is the Human Development Index in United Kingdom.

GDI is used to measure gaps found in gender in the achievements of human development by taking an account for the imbalance between men and women in the three known basic dimensions of development for human that is health, the peoples living standards of living and the knowledge this people have while still using the same component indicators as in the case of Human development Index. GDI finds out the ratio of female to male in separate way while using the same mode just as it is used in HDI. This is a direct measure of gender gap that indicates the female HDI as a percentage of the male HDI.

In the first place, its clear from the statistics that, united kingdom's scores are high in all the domains. The scores are highest in domains including health and money. However, the inequality in gender in have been pronounced as the highest in the domain of power. The scores achieved are seen to be been increasing from 2005 in United Kingdom. However, from the statistics audit of 2018 from the global

ranks, it has been found that, United Kingdom has achieved to fall down some of the key variables that really affects gender equality in our life. Despite the fact of the government to take an initiative to tackle imbalances in gender mostly in politics, United Kingdom has greatly dropped from the century of 15<sup>th</sup> to the current century way of living where everyone is considered equal.

To add on, the United Kingdom has been seen to have performed poorly compared to 2018 because women their political positions they did not consider women, thus women were seen to be sparsely represented. According to the 2020 report of Global gender gap (GGG), it indicated that the gender gap of wage in United Kingdom was 16%. That is, in United Kingdom, the number of women that is three times more have been found to be given roles that are considered part time when compared to the men in that country. When it comes to the issue of employment in United Kingdom, it has been found that the employment of people is between the age of 25 and 54 in a week in United Kingdom between the year of 1970 to 2018. From this number, the employment of women has risen almost to be steady up to 2000 that is moving from 45% to 75%. Afterwards it declined reaching a place of 69% and the bounded back to 73% in 2018.

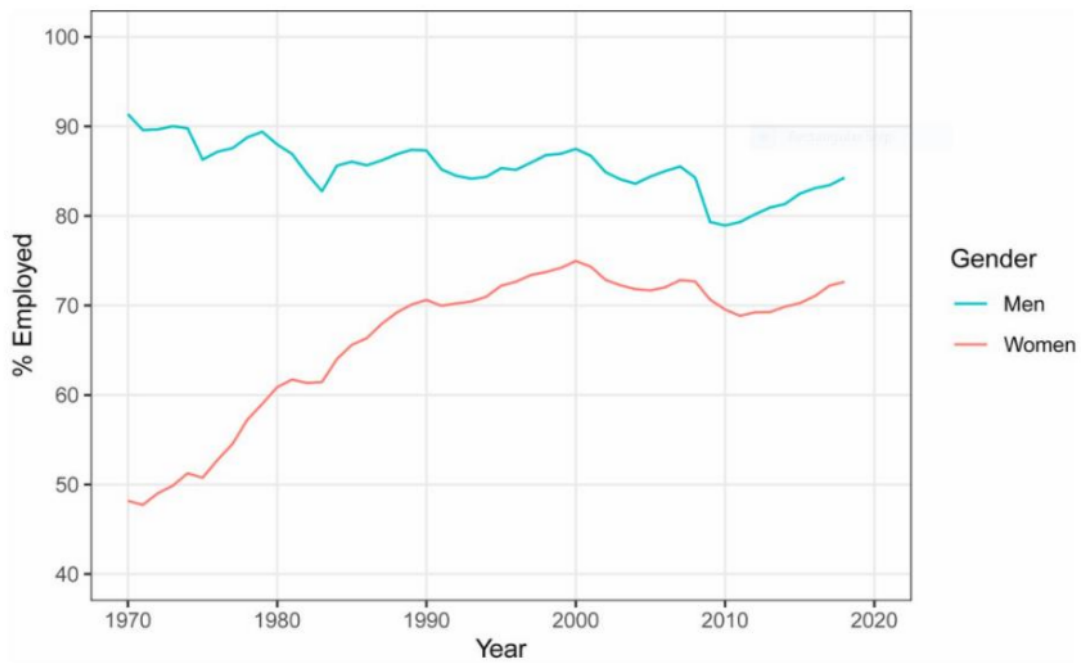


Fig. The graph above shows the year against the percentage of employment for both women and men in United Kingdom.

Another key variable, is the gender inequality Index. This is still a major barrier when it comes to human development in United Kingdom. It is long time since girls and women have experienced a major stride while in the process of achieving equality. Women have been discriminated against accessing required health, the required education and being involved in the representation of political positions. Thus, this gender is said to have no freedom in making choices for their own.

In this paper, the gender inequality index has been used in measuring the ratio of maternal mortality, the reproductive health, the status of the economy, the participation of both genders in the labor market. Also, gender inequality index has been used to measure the proportion of seats in the parliament which are seen

to be occupied by women and at the same time finding the proportion of adult females and males ranging between the age of 25 and older plus having one education in the secondary level. However, in 2017, the United Kingdom women earn 2% less than the salary of men. Again, in part time work in the women in United Kingdom earn 5.1% more than men. To add on that, women are still considered as the primary carers of children and thus they are too much attracted to the jobs that deals with caring than those of men in the society. Women are mostly into part time jobs which in real sense lack security.

In addition, a new decade in United Kingdom may seem to mean nothing to girls in that country as they feel frustrated with them being given empty messages with no meaning concerning the empowerment of women in United Kingdom. In the report of 2020, it is clear that, in a survey conducted, 60% of girls in the school that survey was done stated that they do believe that males are better treated than females in the United Kingdom. It is well stated that the girls had revealed this after they saw the treatment the male were given in the media. In addition, from the report is that there is practice of regional inequality where by some girls are left even further behind.

However, after studying all these, “Plan International UK” is trying to make a call on the new government of United Kingdom so as to be in a position to bring new focus on how to deliver the right of this girls and thereafter to help more so on ensuring equality for the gender across the country of United Kingdom.

Another factor that is also a key variable in measuring of gender inequality is gender empowerment index. GEI in United Kingdom has been seen to improve in many sectors of life. Earlier before, women were still not considered in any section if it not just caring. As per now, United Kingdom has effectively improved their system of life by considering women in at least all aspects of levels. At least now, women number in parliament seats is seen to increase, the same women are in a position to apply for any course without consideration.



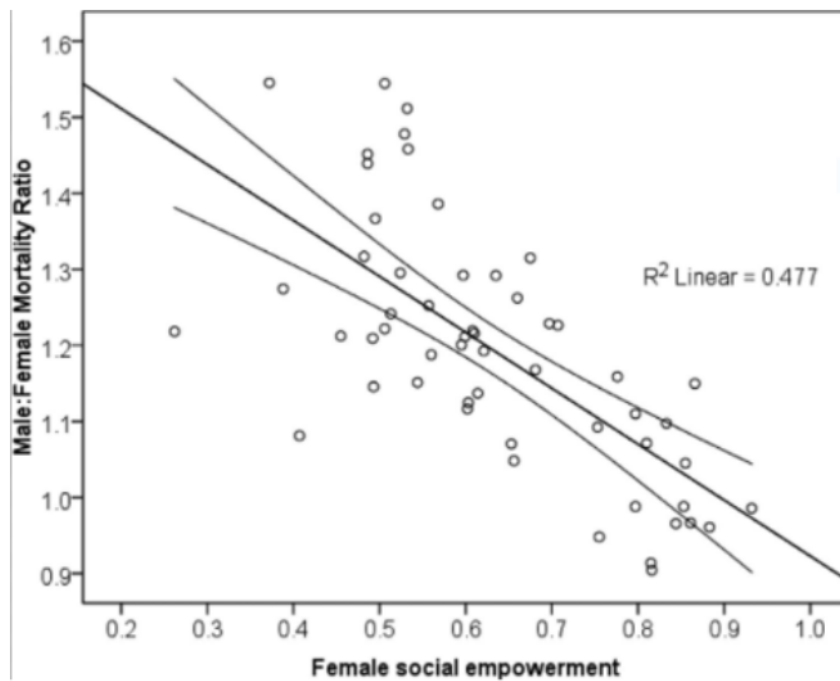


Fig. The graph above shows the female social empowerment against male-female mortality ration in United Kingdom.

However, United Kingdom has effectively tried to improve the empowerment of women. Therefore, by realizing gender inequality and trying in its empowerment for women and girls will greatly contribute to the progress across all the targets. Its clear that the achievement of full potential for human is not possible if for our case one of the halves of humanity remains in apposition to be denied for its full human rights and the chances. However, women in the society must enjoy equal accessibility to the quality services of education, resources of the economy and be allowed in participation of the political positions and same case to having equal chance to both men women when employment comes in.

However, using our own dataset, several analyses has been performed on that dataset to find and draw conclusions from that dataset. The main aim of using dataset is to clearly find the facts behind the inequality of gender in United Kingdom. Using the factors of gender development index, gender inequality index and gender empowerment index to perform measurement on the level of inequality in United Kingdom, several issues have emerged. First, ladies have been seen doing social science courses in their scholar level of education while boys based on sciences. This is a great form of inequality to this gender. In all cases, girls in United Kingdom are being considered as careers thus, they are found involved in such kind of jobs.

To this extent, this is a form of neglecting women to participate in big positions and jobs whereas leaving those positions to men in United Kingdom. In addition, most of women are seen in many of the part time jobs which in any event are not secure jobs because anytime, they can be stopped form working. On the other side most, men are not working on part time occasions instead they do find full time jobs which are secure. In this manner its clear that women are been treated unequally.

## The descriptive statistics

Descriptive Statistics						
Anova: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
37335	21	3452757	164417	1.65E+10		
28660	21	4830058	230002.7	2.96E+10		
5	21	996	47.42857	1227.584		
66005	21	8283808	394467	8.5E+10		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.68E+12	3	5.6E+11	17.07541	1.16E-08	2.718785
Within Groups	2.62E+12	80	3.28E+10			
Total	4.3E+12	83				

This section covers the descriptive statistics. While we are in the process of preparing the models using our own data set, the variations, standard deviations and the averages/means same case to the value of the variable that is minimum and maximum to be used in the identification of outliers in our own data set.

From the table above shows the average and variance of the key variables and how they related and affect the other. The above table has been achieved using the nova in the excel software using our own data set that we gathered from various sources of data.

Below is another table that shows the descriptive statistics in detail that is the means stand deviations found the standard errors and many more.

Year	2017/2018			Year	2019/2020		
	<i>male</i>	<i>female</i>			<i>male</i>	<i>female</i>	
Mean	173636.4	Mean	135323	Mean	179186.6	Mean	136748.2
Standard E	64970.36	Standard E	50053.42	Standard E	66948.54	Standard E	50621.33
Median	49807.5	Median	48447.5	Median	51122.5	Median	47517.5
Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A
Standard E	304738	Standard E	234771.3	Standard E	314016.5	Standard E	237435.1
Sample Va	9.29E+10	Sample Va	5.51E+10	Sample Va	9.86E+10	Sample Va	5.64E+10
Kurtosis	8.277424	Kurtosis	8.5275	Kurtosis	8.271617	Kurtosis	8.495334
Skewness	2.831654	Skewness	2.860367	Skewness	2.823499	Skewness	2.853568
Range	1268840	Range	990965	Range	1308515	Range	1001195
Minimum	4495	Minimum	1405	Minimum	5520	Minimum	1625
Maximum	1273335	Maximum	992370	Maximum	1314035	Maximum	1002820
Sum	3820000	Sum	2977105	Sum	3942105	Sum	3008460
Count	22	Count	22	Count	22	Count	22

Above are the two tables representing the statistics description. The first table is used to represent the descriptive statistics of gender inequality in the year 2017 to 2018. However, on the other hand, the second table represents a descriptive table for the year 2019 and 2020.

From table one and table two, looking at the maximum and minimum values for both tables, it is clear that there may be average outliers in both cases considering the dataset used in our case. At the same time, the standard deviation in table one and table according to our data set is average thus this means that the data set used is not noisy.

The dataset had key variables of employment, the education in which one could easily tell how each gender in the dataset is being acted upon. For example, from our data set its clear that science courses are being done by men in United Kingdom at the same time, the full-time employment is majorly for the the men as the part time is left mostly for women for which in this case it is insecure type of job.

The standard deviation in the second table seems to be much higher than in table one. Considering the fact that table two represents the data descriptive statistics for the year 2019 and 2020, this shows how the rate and level of inequality still persists in the United Kingdom. It is well stated that the girls had revealed this after they saw the treatment the male were given in the media. In addition, from the report is that there is practice of regional inequality where by some girls are left even further behind.

## Correlation Analysis

According to our data sets used in this research paper, we might experience the problem of multicollinearity between our variables. Furthermore, if one of the variables considered is labeled as a significant, then it may be the case where by another variable may have the effect on the variable that in this case is dependent rather than the initial variable. The standard errors in this case will be filled thus may lead to errors when testing significance is done. However, there is no effect on the reliability of the models created.

	<i>Male</i>	<i>Female</i>	<i>Others</i>
Male	1		
Female	0.975581	1	
Others	0.986863	0.969095	1

	<i>Male</i>	<i>Female</i>	<i>Others</i>
Male	1		
Female	0.890213	1	
Others	0.960538	0.946668	1

From our table above, it is clearly showing the correlation between the variables used in this research study paper. However, there seems to have some degree of collinearity between those variables that are independent but because these are very high levels, above 0.75 and above -0.75, then we can overlook unto it. We should be aware to caution when we are looking at the impacts of this factors because the collinearity between the two is abit higher.

To add on that, when we are looking into this table, we can easily invest the coefficients signs used within our created models. From the table, it is an indication that, the overall in United Kingdom there is much evidence.

## Methodology and Results

In this part of the research paper, we will be based on the some of the methods used to enable us create models to be used during the analysis of our dataset. In this section, we will be discussing on the run of regressions, and including the results and analysis on whether they support some of the study.

However, other methods used are application of regression analysis on our dataset. The regression analysis is done by use of excel over our dataset. The use of a nova test in us excel on our data. To add on the above methods, we also have the descriptive statistics which is also found in the excel package. This three are used in excel software as addons to facilitate the process of data analysis. Using all these

methods, we are able to get our summary statistics from our dataset and thus it becomes easy in understanding how variables in our dataset are related to each and how they can too affect the output when a model is created from our dataset.

## The Model

In the initial mode, the regression of an Ordinary Least Squares approach will be used in this case. The approach is used to perform estimation on a panel on the model of our country which is United Kingdom for the period ranging 1970 to 2018. The estimation of Ordinary Least Squares finds the parameters which will be used to minimize the sum of the residuals of the squares. These residuals are just the difference between our predicted variable that is considered to be dependent in this case and the actual variable that is dependent which is the variable of that observation. Using this model several calculations will be performed on our data set.

Simple Ordinary Least Squares also does not consider the dataset that has been divided into two data sets part. In addition, every set has got its own individual features that are unique. Therefore, to take this into account, we will introduce variables of dummy so as to capture the random or fixed effects. In our case, the first Least squares dummy will try to divide the data sets into two different groups and later look at the groups as a whole. To be able to look at each as an individual then a dummy variable will be used to consider their uniqueness. This actually is the effectiveness of a fixed impacts of the Ordinary Least Squares model.

In our case, the GDI that is gender development index is the measure of inequality in United Kingdom. To perform measurement to the extent of inequality in United Kingdom, GDI has been initiated. In addition to this, women have been empowered. Thus, the measurement for the extension of this empowerment of women in United Kingdom, gender empowerment index has been applied to perform such measurement. The Human development index in this case measures the achievements in human

development in terms of three indicators but ignores the all differences that are found between men and women in the United Kingdom. Gender Development Index is used to study the gender differentials. Just like in index of human development, and the index of gender development performs the measure in the same particular dimensions and the key variables in the respect of both men and women.

To conduct the calculations of these indices for their dimensions, the max and min values for both male and female indices are operated on in each dimension and in the accordance with the formula given below;

**The Index Dimension = the actual value – min value / max value -max value.**

However, the inequality in gender in our selected country that is United Kingdom , lowers the Gender development index. Again, it is clear that when United Kingdom becomes to a point of expanding its capabilities for both men and women will automatically have higher gender development index. Also, it has been found that a country which has got a gender development index of less than 0.500 is indicating that there are larger inequalities of gender in that country. Furthermore, in human development index, the expectancy life of both male and female at birth is calculated. But in the case of gender development index, the expectancy life of both female and make at the time of birth are then operated on. After determining all this, all of the calculated operations are performed in an away that it will penalize the differences in the achievement between the women and the men. Thus, equally distributed life expectancy index is what is obtained as the final results.

The index formula used in this case is thus as follows;

**Equally distributed index = {[female share population (index of female) + [male population share(index of male)]}**



## Results and Findings

According to the analysis conducted by our model from our own selected dataset, the following results have been collected; that the regressions run and the models generated are the simple Ordinary Least Squares, an Ordinary Least Squares with just one variable of dummy followed by the Ordinary Least Squares Variable regression in that respective manner. Our models have used models from both Bloomberg and world data bank. The data set used in our research paper is ranging between the period of 2000 to 2018.

I have been found that an inverted-U relationship between inequality of gender in United Kingdom and the level of gender development index exists. The point of turning of the inverted-U is estimated to be at appoint where the gender inequality seems to have a negative relation with the gender development index. However, it has been found that, inequality is seen in areas like the political positions where seats occupied by women in the parliament are very minimal. At the same time, in the education institutions, still the learning courses indicates how girls have been left in doing social sciences than the technical courses which are for the boys. It is well stated that the girls had revealed this after they saw the treatment the male were given in the media. In addition, from the report is that there is practice of regional inequality where by some girls are left even further behind.

There is an adjusted R square which adjusts for the number of the variables that are independent and that those variables have been used in the model that we have used in performing the calculations. Unlike in the R square, the value only increases if the new variables which have been incorporated in our analysis happens to improve the fitness of our developed model according to our calculations thus the value increases. Looking at the tables, the R square which has been adjusted is found to be too low for our model however this increases later in a significant manner, this is a suggestion of having more models as explained by the regression conducted. Again, to keep in mind they do contain the variables that are dummy which to some extent may be affecting the adjusted R square to a particular extent.

To perform the test for our significance our model developed, we are required to conduct a joint test of relevance of all the included variables of the independent is experimented from which the results found is the F-statistic. Now, when using the F-statistic and the key value of our own model, it can be concluded that our model has rejected the null hypothesis and thus in conclusion the models created in this case to conduct operations for our research paper using our own selected data set is of significant in finding out the results that we have been targeting. I addition, when we are concerned with the order of errors for our statistics experiments, when the statistics done is found to be above 2 then this means that the correlation found to be negative between the errors and the value being operated on. Also, when the value is said to be below 2 then there is a positive correlation found between the values and the errors.

## Conclusions

In this study research, we have looked in details at the main determinants of inequality in the United Kingdom country. To be clear, it can be said that in the whole country, there is a significant presence of the inverted-U hypothesis in the first table but not in the second table of our descriptive statistics. However, it has been found that definitely there is an effect of education on the inequality levels of gender which is visible throughout the whole country. An evidence of conclusive has been found on the negative impact of the rate of growth in the current time having the current levels of inequality in the country. Also, there has been a combination of evidence of how this course being studied are related to the gender. In this case, girls are mostly more into social sciences and humanities whereas men are the one tackling the science-based courses. This shows a form of inequality in education sector in United Kingdom.

There are some of the merits of the findings further, this research paper has only focused on one country, the United Kingdom. Thus, this might be the case that the results found in this research paper may not really be applied to other countries of the world. Also, there is this concern of using two datasets for the education levels and the other for the GDI index. This means that it may have reduced the conclusions of this research paper to be less real. Again, if it may be possible to incorporate a dataset that is of more complete for the two variables and also to allow the extension of the research to other parts or countries in the world. However, how the models and deviations will be real to them will be of much higher when the future comes.

The statistics found in our datasets for the inequality of gender in United Kingdom allow us to uncover the exact picture of the problem in women's equality and they're after let the development know for better and effective interventions of the government. Furthermore, United Kingdom is encouraged to consider gender inequality as one of the key areas of work and in this way be in a position to tackle stereotypes and the act of prejudice that still are one of the factors that are in process of underpinning discrimination.

There is a sudden rise in women that is in both professionals and those that are non-professional at the same time the United Kingdom should take the initiative of promoting this. It is well stated that the girls had revealed this after they saw the treatment the male were given in the media. In addition, from the report is that there is practice of regional inequality where by some girls are left even further behind. To confirm this, it is evidence that new spaces has been opened up by the digital technology across United Kingdom so that the voices of women be in a position to come together in a virtual way and be in a position to be hard get an advice and also be able to support as we campaign for the change. Tech has really allowed women's profile and campaigns that are successful.

## References

- Durbin, S. and Fleetwood, S., 2010. Gender inequality in employment: Editors' introduction. *Equality, Diversity and Inclusion: an international journal*.
- Pritchard, R., 2010. Gender inequalities among staff in British and German universities: A qualitative study. *Compare*, 40(4), pp.515-532.
- Laver, K.E., Prichard, I.J., Cations, M., Osenk, I., Govin, K. and Coveney, J.D., 2018. A systematic review of interventions to support the careers of women in academic medicine and other disciplines. *BMJ open*, 8(3), p.e020380.
- Wan, C.D., 2018. Student enrolment in Malaysian higher education: is there gender disparity and what can we learn from the disparity?. *Compare: A Journal of Comparative and International Education*, 48(2), pp.244-261.
- Weiler, H.N., 2008. Keyword: International research on higher education. *Zeitschrift für Erziehungswissenschaft*, 11(4), pp.516-541.
- GÖNENÇ, İ.M., AKGÜN, Ş., ÖZVARIŞ, Ş.B. and Tunc, T.E., 2013. An Analysis of the Relationship between Academic Career and Sex at Hacettepe University. *Education & Science/Eğitim ve Bilim*, 38(170).
- Pritchard, R.M., 2010. Attitudes to gender equality issues in British and German academia. *Higher Education Management and Policy*, 22(2), pp.1-24.
- Tsouroufli, M., 2018. 'Playing it right?' Gendered performances of professional respectability and 'authenticity' in Greek academia'.
- Henkel, M., 2017. Gender Equality in Academic Career Progression: A Matter of Time?. In *The changing role of women in higher education* (pp. 195-207). Springer, Cham.
- Anderson, J., Goodall, H. and Trahar, S., 2020. Women in powerful conversation: collaborative autoethnography and academia. *International Journal of Qualitative Studies in Education*, 33(4), pp.393-403.
- Gönenç, İ., Akgün, Ş., Özvarış, S.B. and Tunç, T.E., 2013. Hacettepe Üniversitesi'nde Cinsiyet ile Akademik Kariyer Arasındaki İlişkinin İncelenmesi. *Eğitim ve Bilim*, 38(170).
- Agarwala, T., 2017. Who promotes a gender agenda? An Indian case study. In *Gendered success in higher education* (pp. 233-252). Palgrave Macmillan, London.
- Henkel, M., 2017. Gender Equality in Academic Career Progression: A Matter of Time?. In *The changing role of women in higher education* (pp. 195-207). Springer, Cham.

## Appendix

### United Kingdom gender inequality educational data

Subject Area	2014/15				2015/16				2016/17			
	Female	Male	Other	Total	Female	Male	Other	Total	Female	Male	Other	Total
(1) Medicine	37,335	28,660	5	66,005	37,420	28,120	10	65,550	37,430	27,645	35	65,110
(2) Subject	218,530	56,830	20	275,385	226,010	58,895	25	284,935	229,905	60,770	95	290,770
(3) Biology	128,775	82,570	20	211,360	134,315	82,965	30	217,310	142,585	83,730	85	226,395
(4) Veterinary	4,495	1,405	0	5,900	5,205	1,570	0	6,775	5,520	1,625	0	7,145
(5) Agriculture	11,855	7,350	0	19,205	11,805	7,220	0	19,025	11,815	6,835	5	18,655
(6) Physics	37,080	56,660	15	93,760	38,305	56,590	30	94,920	39,200	55,925	45	95,170
(7) Mathematics	15,955	26,440	5	42,405	16,065	27,080	10	43,155	16,265	27,580	35	43,880
(8) Computer	16,040	77,170	20	93,230	16,505	79,735	20	96,260	17,390	83,710	45	101,145
(9) Engineering	26,955	134,340	20	161,315	27,760	135,465	30	163,255	29,025	136,085	45	165,155
(A) Architecture	17,365	30,885	5	48,255	18,285	31,095	5	49,385	19,350	31,905	10	51,265
Total - Science	514,385	502,315	110	1,016,810	531,675	508,735	160	1,040,570	548,485	515,810	405	1,064,700
(B) Social	130,650	77,385	35	208,070	135,185	78,910	50	214,145	139,915	81,685	115	221,710
(C) Law	53,545	34,035	15	87,595	54,720	33,925	20	88,665	55,985	33,715	35	89,730
(D) Business	161,450	165,325	20	326,795	162,160	164,310	30	326,500	164,955	168,415	50	333,425
(E) Mass	28,775	19,825	10	48,610	29,330	19,970	15	49,320	29,820	20,560	40	50,420
(F) Language	77,375	33,945	20	111,340	76,070	32,255	35	108,355	75,615	31,365	60	107,040
(G) History	46,070	40,235	25	86,330	45,750	39,590	40	85,375	46,260	39,110	85	85,455
(H) Creative	105,840	61,030	60	166,930	108,560	61,175	90	169,825	113,275	62,235	190	175,700
(I) Education	124,960	39,405	30	164,395	119,220	36,905	25	156,150	115,560	35,455	40	151,060

### Gender inequality based on ethnicity in United Kingdom

Measure	Time	Ethnicity	Ethnicity_	Gender	Gender_t	Value	Value_no
Ethnic gro	2011	All Ethnic	ONS 18+1	Male	male/fem	49	% of ethni
Ethnic gro	2011	White	ONS 5+1	Male	male/fem	49	% of ethni
Ethnic gro	2011	White - Br	ONS 18+1	Male	male/fem	49	% of ethni
Ethnic gro	2011	White - Iri	ONS 18+1	Male	male/fem	48	% of ethni
Ethnic gro	2011	White - G	ONS 18+1	Male	male/fem	50	% of ethni
Ethnic gro	2011	White - Ar	ONS 18+1	Male	male/fem	47	% of ethni
Ethnic gro	2011	Mixed	ONS 5+1	Male	male/fem	50	% of ethni
Ethnic gro	2011	Mixed - W	ONS 18+1	Male	male/fem	50	% of ethni
Ethnic gro	2011	Mixed - W	ONS 18+1	Male	male/fem	50	% of ethni
Ethnic gro	2011	Mixed - W	ONS 18+1	Male	male/fem	51	% of ethni
Ethnic gro	2011	Mixed - A	ONS 18+1	Male	male/fem	49	% of ethni
Ethnic gro	2011	Asian	ONS 5+1	Male	male/fem	50	% of ethni
Ethnic gro	2011	Asian - Inc	ONS 18+1	Male	male/fem	51	% of ethni
Ethnic gro	2011	Asian - Pa	ONS 18+1	Male	male/fem	51	% of ethni
Ethnic gro	2011	Asian - Ba	ONS 18+1	Male	male/fem	52	% of ethni
Ethnic gro	2011	Asian - Ch	ONS 18+1	Male	male/fem	47	% of ethni
Ethnic gro	2011	Asian - An	ONS 18+1	Male	male/fem	49	% of ethni
Ethnic gro	2011	Black	ONS 5+1	Male	male/fem	48	% of ethni
Ethnic gro	2011	Black - Afr	ONS 18+1	Male	male/fem	48	% of ethni
Ethnic gro	2011	Black - Car	ONS 18+1	Male	male/fem	47	% of ethni

FINAL GRADE

/0

GENERAL COMMENTS

Instructor

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7

PAGE 8

PAGE 9

PAGE 10

PAGE 11

PAGE 12

PAGE 13

PAGE 14

PAGE 15

PAGE 16

PAGE 17

PAGE 18

PAGE 19

PAGE 20

PAGE 21

---

PAGE 22

---

PAGE 23

---

PAGE 24

---

PAGE 25

---

PAGE 26

---

PAGE 27

---

PAGE 28

---

PAGE 29

---