

GENDER DISCRIMINATION AND INEQUALITY ANALYSIS

Anjali Dubey¹, Vrinda Tiwari², Ratnapriya Bhatt³, Shivangi⁴, Vernika Singh⁵

1,2,3,4UG Scholar Department of Computer Science and Engineering, Raj Kumar Goel Institute of Technology (RKGIT),

⁵Asst. Prof. Vernika Singh, Raj Kumar Goel Institute of Technology (RKGIT), Uttar Pradesh

Abstract:- Gender inequality in India is complex and varied, as it affects every aspect of life, including education, employment possibilities, income, health, cultural concerns, social difficulties, and economic issues. The result of the policies and techniques being implemented has been attempted to be displayed. Greater gender equality can help to address future societal concerns. We felt the need to design an easy-to-use website in which we incorporated a significant amount of data analysis and representation so that even a layperson can comprehend the consequences of various policies on women, as women inequality is one of our country's most serious challenges. It is vital to invest in and empower females by providing them with education, life skills, sports, and other opportunities. However, it should be a vectorized effort that can only be realised if and only if adequate analysis of data acquired after the adoption of various policies is done. We will collect complex and dispersed data and use technology to display it in the form of a graphical presentation. It will not only convey the information in an understandable manner, but it will also present it in its purest form.

Keywords- Data extraction, data collection, data cleaning, data processing, interpreting data, streamlining data, education, crime, labour, discrimination, gender inequalities.

1. INTRODUCTION

Gender equality means that men and women, regardless of gender, have equal rights and opportunities as human beings. It also means that all people (men and women) should have equal access to developing their personal strengths and making personal decisions. Men and women will not be treated differently by the state or society because of their gender. Gender equality also emphasises that inherent or biological differences between men and women do not lead to differences in status and rights in all aspects of life.

Discrimination against women and girls is a widespread and long-standing scourge that pervades Indian society at all levels.

Despite relatively quick economic growth, India's progress toward gender equality, as assessed by rankings such as the Gender Development Index, has been unsatisfactory. While India's GDP has expanded by roughly 6% in the last decade, female labour force participation has dropped from 34% to 27%. The earnings disparity between men and women has remained constant at 50%. (a recent survey finds a 27 percent gender pay gap in white-collar jobs).

Crimes against women are on the rise, especially violent crimes including rapes, dowry deaths, and honour killings. These changes are concerning since, with growth, comes knowledge and income, as well as a likely decline in loyalty to conventional institutions and socially dictated gender roles that stifle women's progress.

1.1 Gender inequality in Education

Gender inequality in schooling is a chronic problem in Indian society, particularly for girls from economically disadvantaged backgrounds. Gender disparities are significant in a variety of areas, including education, health, work, and compensation. There have been advancements in the achievement of universal enrolment of pupils in schools throughout the last several decades. Socioeconomic factors, access to learning materials and resources, time devoted to formal learning activities, and cultural viewpoints and perspectives on girls' education among individuals and communities are all major contributors to education gaps.

In the current day, policies and programmes have been developed to ensure that girls have equal access to equal rights and opportunities. Previously, people held the belief that male members of the family should be educated. When men have an education, they will be able to make a substantial contribution to their families' goodwill and well-being by obtaining employment prospects.

Individuals and communities have changed their ideas and opinions in recent years, both in urban and rural communities, and are pushing females to pursue education.

1.2 Gender Inequality in Workforce

The wage gap is the average difference in gross income or salaries between men and women. Different educational choices, differences in selected industry and job, different types of posts held by women and men, different types of jobs men typically go into as opposed to women, differences in amount of work experience, differences in working week duration, and intervals in employment all contribute to the gap. According to the data, these factors account for 65 percent to 80 percent of the pay disparity. Women's lower willingness and capability to negotiate compensation, as well as sexual discrimination, have been proposed as explanations for the remaining 25% to 40%.

1.3 Crime Against Women

The number of crimes committed against women has risen dramatically in recent years. Not only in India, but around the world, it has become a huge social concern. Many attempts have been made to prevent similar atrocities, with strong actions taken in response. Every year, a large amount of data is generated from various types of crimes reported from throughout the world. This knowledge can assist us in better understanding and identifying violence, as well as mitigating it to some extent. Analyzing such statistics can be quite useful in finding crime patterns and occurrences.

Data is analysed and presented to demonstrate the various crimes that occur in a certain region. For example, crimes such as kidnapping and abduction cases, dowry killings, and assault on women with the intent to offend her modesty have been depicted depending on different states in India.

2. LITERATURE REVIEW

According to Laufer (2002), no law has ever attempted to define discrimination precisely; but, in the context of work, it can be described as the provision of an unfair benefit (or disadvantage) to members of one group over members of another. The disadvantage frequently manifests itself in the denial or restriction of work possibilities, as well as discrimination in terms of employment perks. Discrimination is a sophisticated and complex phenomenon that can manifest itself in two ways:

Disparate (Unequal) Treatment: This is a deliberate form of discrimination. For example, hiring or promoting one person over another who is equally qualified because of the individual's ethnicity, sex, or gender; or paying a guy more than a female to perform the same task.

Education:

In India, the educational system is divided into three levels and five sub-levels: elementary, which includes primary (I-V) and upper primary (VI-VIII); secondary, which includes secondary (IX-X) and higher/upper secondary (XI-XII); and higher education, which includes higher/upper secondary (XI-XII) (UNICEF, 2014). However, there has been minimal research in India on female transition rates at higher levels of education, such as secondary school and beyond. This study will look into how much lower the rate is for some girls and why there is such a big gender gap in higher education. This will entail examining a variety of contributing indicators and elements to a girl's education, which will be detailed in the next section.

Many frameworks and policy recommendations for developing nations have been established, and this study will use them to determine how India may enhance gender equality in education. Further education refers to upper secondary school and colleges in this study, whereas higher/tertiary education refers to universities and similar institutions.

Das, D. K. (1985), Das, D. K. (1985), conducted a study on Sex Discrimination Against Female Workers in the Unorganized Sector, Indian Journal of Industrial Relations, 21(2), 232-244, and concluded that women make up half of India's development specialists as semi-gifted/talented occupations in various enterprises, but in the development industry, women are mostly used as untalented workers (GOI. 2008a). They labour in a variety of untalented jobs in the construction industry, from cleaning construction sites to transporting blocks, rock, mortar, and water. Regardless of how many years they work, they are not updated from incompetent to talented as guys (Jhabvala and Kanbur, 2002; Baruah, 2008). Sexual orientation separation for work designation and salary allocation has resulted as a result of this outlook (Suchitra and Rajshekhar, 2006). The working environment culture of these ladies is further entangled by such enemies of ladies attitudes and separation. They have a very intense existence and disdain social prestige and social fairness, which they truly deserve.

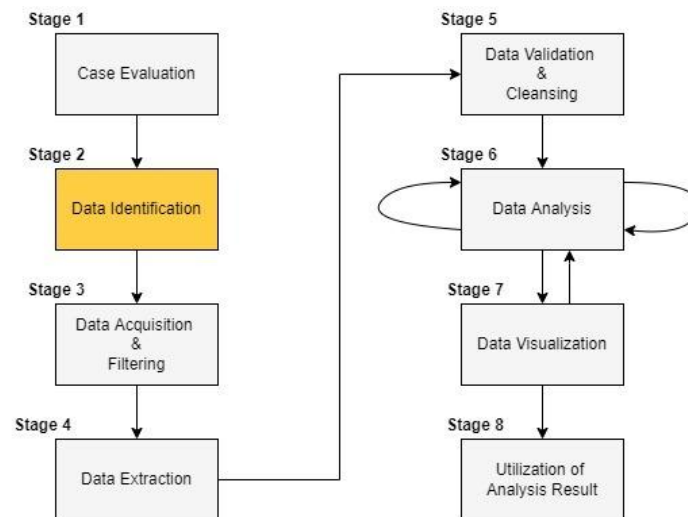
Radhika Kapur (2019). Gender Inequality in Education uploaded on ResearchGate. She has concentrated on Gender imbalance in education is widely viewed as a fundamental impediment to the educational system's advancement. Poverty, the prevalence of traditional viewpoints, school infrastructure, discriminatory treatment of girls, the occurrence of criminal and violent acts, child marriage, parental education, occupation, management of household responsibilities, and a lack of interest in studies are all major factors that contribute to gender inequality in education. When girls and women are exposed to one or more of these elements, it usually has a physical and psychological impact on them.

There have been programmes and schemes developed with the primary goal of raising awareness among people of all ages, backgrounds, and communities about the need of treating girls and women with respect and providing them with equal rights and opportunities. Individuals and communities who offer females with equal rights and opportunities will not only encourage their successful growth and development, but also the well-being of their communities and the entire nation.

Arpita Banerjee(2013) This research attempted to assess women's status and position in light of various key gender-related development indicators. During the recent period, the indicator includes a wide range of topics related to women's education, health, and social standing in India and its states. The analysis of each indicator independently has assisted in determining the state's progress and backwardness in each indicator. This really assists policymakers in framing policies and programmes that are focused at addressing the problem that a given state is experiencing. The country's and states' achievements in the field of female education are commendable, yet they still lag behind industrialised countries in the international arena. Various programmes and strategies aimed at improving India's public health system have recently begun to yield results. In health-related measures such as IMR for females, MMR, and anaemia among women, the states have shown some improvement when compared to the preceding period. Over time, the country's achievement of these (Literacy rate, IMR, MMR) metrics has shown a convergence of states.

However, it is worth noting that there is a significant interstate gap in women's health-related indices. Though the BIMARU states (Bihar, Uttar Pradesh, Madhya Pradesh, and Rajasthan) have improved over the years, they still remain far behind some of the developed states in terms of accomplishment. Furthermore, the metrics chosen to indicate women's social position reveal a high level of gender discrimination. Women have a poorer position in the country due to diminishing sex ratios in both industrialised and developing countries, rising crime, and spousal abuse against women.

3. Methodology



DATA COLLECTION

Extensive Data collection linked to project objectives to answer the questions:

- Are the policies implemented by the Govt. having a positive impact on these areas of inequality?
- Which Aspects still need improvement?

Filtering-

The process of selecting a smaller subset of your data set for viewing or analysis is known as data filtering. Filtering is usually (but not always) temporary; the entire data set is saved, but just a portion of it is used in the calculation. Filtering can be used to:

Examine results for a specific time period. Calculate the outcomes for specific groups of interest. Exclude any observations that are incorrect or "poor." Develop and test statistical models.

Data extraction

It is the process of gathering or obtaining various sorts of data from a number of sources, many of which are often unstructured or poorly organised.

Data validation

Data validation means checking the accuracy and quality of source data before using, importing or otherwise processing data. Different types of validation can be performed depending on destination constraints or objectives. Data validation is a form of data cleansing.

Data cleaning

Data cleaning (sometimes also known as data cleansing or data wrangling) is an important early step in the data analytics process. This crucial exercise, which involves preparing and validating data, usually takes place before the core analysis. It involves Removal of Duplicacy, Removal of Nan values, Dimensionality reduction, etc

Data Visualization

It is used to communicate information clearly and efficiently to users by the usage of information graphics such as tables and charts. It helps users in analyzing a large amount of data in a simpler way. It makes complex data more accessible, understandable, and usable.

TECHNOLOGIES USED:

- ▶ Programming Language: Python, HTML, CSS.
- ▶ Packages used: Streamlit, Pandas, Matplotlib, Folium, Folium-streamlit, Plotly, Numpy.
- ▶ Technology Used: Data Analytics.
- ▶ Software Used: Vs code, Jupiter Notebook, MS Excel, Google Colab.

4. Analysis

Finally, the analysis and classification is displayed in an easily understandable manner. The results are displayed in the form of graphs. The bar graph shows different analysis on gender discrimination and inequality.

Analysis is done on three categories, Education, Crime and workforce. Each analysis is represented below in figures.

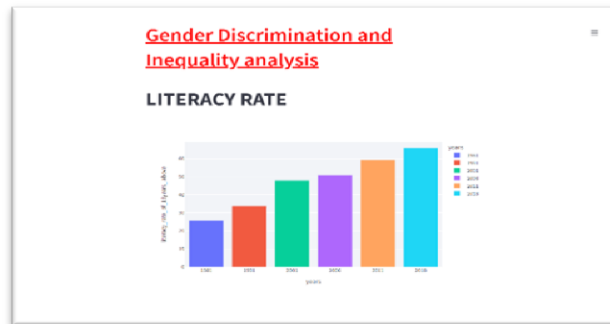
The point of this Analysis was to gather helpful information about the fundamental factors that are thought processes in un.

In education module we have done analysis of the literacy rate, High School Education and Primary Education. And also we have analysed gender parity index in primary education.

In Workforce module we have analysed the data of Wage and Salaried Workers, Female to male labour force participation, labour force participation.

In crime Module we have analysed the data of Rape Cases, Kidnappings, Dowry Deaths Per year, Assault on women, Cruelty by Husband or Relatives.

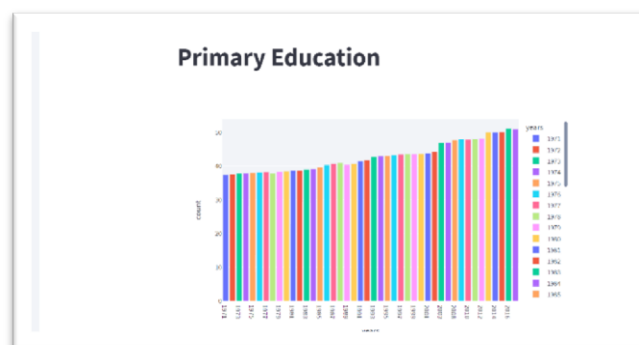
Literacy Rate: After looking at the literacy rate from 1981 to 2018, We came to the conclusion that the adult literacy rate in India has been increasing. The analysis can be seen in the graph below.



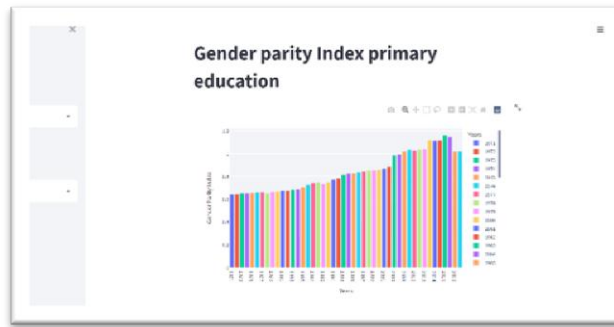
High School analysis: After analysing the progression to high school from 1986 to 2017, we came to the conclusion that female progression to high school in India has been falling since 2002.



Primary Education: We came to the conclusion that elementary education in India has been increasing over time after analysing the primary education rate from 1971 to 2017.



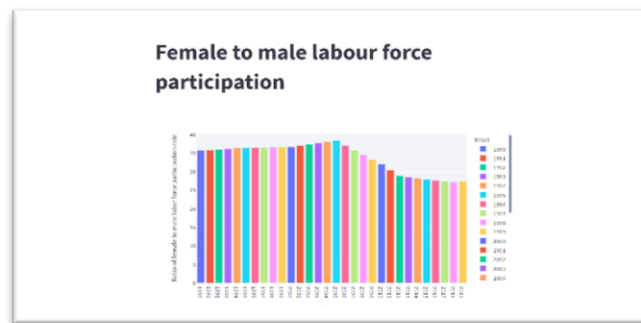
Gender parity Index: After analysing the Gender parity index in primary education from year 1971 to 2020, we reached to the conclusion that gender parity index in primary education in India had been increasing from 1971 to 2016 year then it is decreasing.



Wage and Salaried Workers: After analysing the wages and incomes of female and male workers from 1991 to 2019, we came to the conclusion that there is a significant wage disparity between male and female workers from 1971 to 2016, and that after 2017 year, there is equal pay for male and female workers.



Female to male labour force participation : After examining female to male labour force participation in India from 1990 to 2019, we came to the conclusion that female to male labour force participation in India was the same from 1991 to 2004 and has been declining since then.



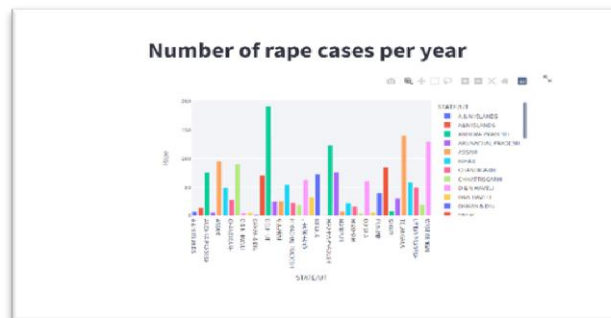
labour force participation: After analysing labour force participation in India from 1990 to 2019, we came to the conclusion that labour force participation in India was constant from 1990 to 2004, then began to decline after 2005, and has remained constant till today

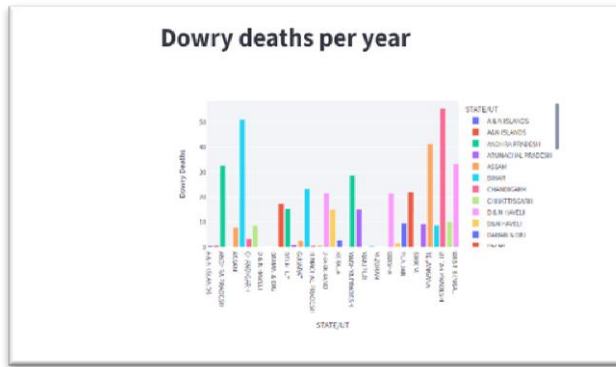


Rape Cases :

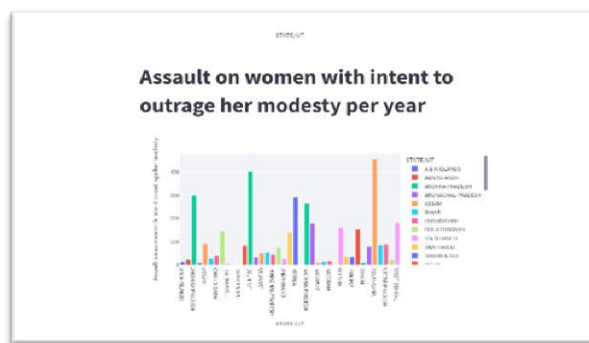
Despite being the country's capital, it is apparent that Delhi has the greatest annual number of rape cases, making it a dangerous location for women to grow and thrive.

This creates a barrier to late-night work schedules, coaching, and other activities, affecting ladies' daily life more than males'.

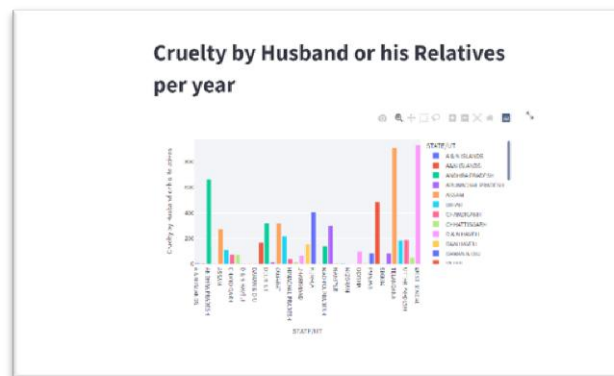




Assault on women: It depicts the annual assault on women with the purpose to offend her modesty in Indian states.



Cruelty by Husband or Relatives: It depicts the amount of cruelty committed by a husband or his relatives per year in various Indian states.



5. CONCLUSION:

The study identified the following as the most significant results based on the preceding analysis and subsequent intensive conversations.

1. The study found that females were subjected to gender discrimination in both education and the workplace. However, this prejudiced behaviour was more prevalent in recent years.
2. The gender parity index in primary education in India increased from 1971 to 2016, then decreased until today, according to the analysis.

3.The investigation revealed that between 1971 and 2016, there was a significant pay discrepancy between males and females, but after 2017, there is parity in male and female pay.

4.A study of labour force participation found that men participate in the workforce more than women.

6. References:

- **Ata Can Bertay, Ljubica Dordevic, and Can Sever:** "Gender Inequality and Economic Growth: Evidence from Industry-Level Data"
- **Radhika Kapur (2019):**Gender Inequality in Education uploaded on ResearchGate
- **Das, D. K. (1985):** Sex Discrimination against Female Workers in Unorganized Sector, Indian Journal of Industrial Relations, 21(2), 232-244
- **Priti Jha1, Niti Nagar (2015)** A Study of Gender Inequality in India published in The International Journal of Indian Psychology.
- **Sumajeet Singh (2017) :**"The state of Gender Inequality in India" published on Research Gate.
- **D.Amutha 2017:** The Roots of Gender Inequality in India
- **Sunny Hundal:** India Dishonoured: Behind a Nation"s War on Women
- **Berta Esteve** Gender Inequality and Growth: Theory and Evidence from India, Volart.