

**AN ANALYTICAL STUDY OF RECENT TRENDS UNEMPLOYMENT  
PROBLEM IN INDIA**

By

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(Reg .No 20PEC012)

Department of Economics

A Dissertation to Avinashilingam Institute for Home Science and Higher  
Education for Women

Coimbatore -641043

In The Partial Fulfilment of the Requirement for the Degree of

Master of Economics

May-2022

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**CERTIFIED AS BONAFIED RESEARCH WORK**

  
Signature of the Head of the Department

  
Signature of the Supervisor

## **ACKNOWLEDGMENT**

## ACKNOWLEDGMENT

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# **INTRODUCTION**

# **CHAPTER I**

## **INTRODUCTION**

Unemployment is a key economic indicator because it signals the ability (or inability) of workers to readily obtain gainful work to contribute to the productive output of the economy. This doesn't include people who leave the workforce for other reasons, such as retirement, higher education, and disability. More unemployed workers mean less total economic production will take place than might have otherwise. Unemployed workers must maintain at least subsistence consumption during their period of unemployment. This means an economy with high unemployment has lower output without a proportional decline in the need for basic consumption. A low unemployment rate, on the other hand, means that the economy is more likely to be producing near its full capacity, maximizing output, driving wage growth, and raising living standards over time.

### **UNEMPLOYMENT**

Unemployment is a powerful statistic that shapes government policy and personal decisions. The government keeps a close eye on the unemployment rate. Our action, feeling and thought are also influenced by it. An individual status in the family and community, as well as the reflection of the employment, the person does. Work can provide a variety of satisfaction including achievement, recognition, responsibility and intrinsic pleasure. Work also empresse a time structure, and provide opportunities for social interaction and for the development of identity and self-esteem (Amarjeet Singh, 2002). India, any person working about 8 hours a day for 273 days annually is considered as employed on a standard person-year basis. Thus, a person to be called an Employed person must get meaningful work for a minimum of 2184 hours in a year. The person, who does not get work for this duration, is known as an unemployed person.

### **UNEMPLOYMENT AND INDIA**

India's manufacturing sector, in formal employment and in numbers of youth 'unemployed but looking for work' are all indicators of the severe jobs crisis (Ankur Bhardwaj 2022) . The last few years, as unemployment has risen and labour force participation has fallen, employment opportunities for India's youth have especially worsened.

Unemployment rate in 2017-18 was the worst in over four decades, According to NSSO survey 2021 – Centre for Employment of Differently Able (CEDA) first year in existence analyzed public data that demonstrated the scale of India’s unemployment crisis, especially for women and the youth and changes in employment by gender over the last 5 years.

## **UNEMPLOYMENT SCHEMES IN INDIA**

The main motive of unemployment schemes is to make life standard by making the people employed.

- Ayushman Bharat
- Prime Minister Awas Yojana- Gramin
- Schemes For Unemployment Women
- Atal Pension Yojana
- Smile Scheme for Supporting Marginalised Individuals For Livelihood and Enterprise
- Udyaman Swanibhar Karmasnthan Praklpa
- Pradhan Mantra Mudra Yojana (PMMY)
- Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)

## **EMPLOYMENT EXCHANGE DATA**

National Employment Service in the country functions in the legal framework of Employment Exchange (Compulsory Notification of Vacancies Act, 1959) through a network of employment exchanges located in various parts of the country. The services rendered by the Employment exchanges include registration and placement, vocational guidance and career counselling and collection of Employment Market Information, National Employment Service covers all the States and Union Territories with a network of 978 Employment Exchanges this is based on the information collected through various statistical returns of different periodicity from employment exchanges located across the country.

## EMPLOYMENT EXCHANGES

- According to the report, (Employment exchange data, 2017) there were 978 Employment Exchanges including University Employment Information and
- Among 978 Employment Exchanges, 42 were Special Employment Exchanges for differently abled and 38 were Special Cells dealing with differently abled.
- Out of 978 Employment Exchanges, 76 were University Employment Information Professional and Executive Employment Exchanges were 14 in number.

## AGE-WISE DISTRIBUTION OF THE JOB SEEKERS

Employment exchange data age wise number of job-seekers on the register of employment exchange in the country classified by the age group.

**TABLE -1**

### AGE-WISE DISTRIBUTION OF THE JOB SEEKERS (2016 – 2019)

SL.NO	YEAR	15-19	20-29	30-39	40-49	50-59	60+
1	2010	21	46.8	24.3	6.5	1.1	0.3
2	2011	20.9	46	24.6	7.1	1.2	0.2
3	2012	18.4	45.5	27.4	7.4	1.2	0.1
4	2013	18.2	46.4	25.9	7.8	1.4	0.3
5	2014	17.5	46.7	26.4	8	1.2	0.2
6	2015	17.2	47	25.8	8.3	1.3	0.3
7	2016	17.5	46.7	25.9	8.1	1.5	0.3
8	2017	17.8	46	26	8.4	2.5	0.3

Source: Employment Exchange Statistics, Ministry of Labour Employment, Directorate General of Employment, (2016-2019).

- The above table-1 explain the employment exchange registration data. Age wise registration data has been recorded from the year 2010-2017. It has been calculated in the percentage.
- According to the year 2010 the age of 20-29 people has been registered more and 0.3 percentage of people has been registered less in 2010.
- Approximately 64.2 percentage of the job-seekers were up to the age of 29 year.

- The absolute number of job seekers in the age group of 20-39 years. 71.1 percentage of total number of job seekers in the year 2010 has increased to 73.1 percentage in 2014
- The number of job seekers in the age group of 30 years and above has marginally increased during the period 2014 as compared to 2013. The percentage of job-seekers in the age group of 30 years and above to the total number of job-seekers which was of the order of 35.4 percentage in 2013 has gone up to 35.8percentage in 2014.
- In the year 2014 approximately 64.2 percentage of the job-seekers were up to the age of 29 years.
- The absolute number of job seekers in the age group of 20-39 years, which was approximately 71.1percentage of total number of job seekers in the year 2010, has increased to 72.8 percentage in 2015.
- The number of job seekers in the age group of 30 years and above has marginally decreased during the year 2015 as compared to 2014. The percentage of job-seekers in the age group of 30 years and above to the total number of job-seekers which was of the order of 35.8 percentage in 2014 has gone down to 35.7 percentage in 2015.
- Approximately 64.2 percentage of the job seekers were in the age group of 15-29 years.
- The absolute number of job seekers in the age group of 20-39 years were 71.1 percentage of total number of job seekers on register at the end of the year 2010. Which has increased to 72.6 percentage in 2016.
- The number of job seekers on register in the age group of 30 years and above have increased during 2016 as compare to 2010.The percentage of job seekers in the age group of 30 years and above to the total number of job seekers on register was 35.8 percentage during 2016.
- Approximately 63.8 percentage of the job seekers were in the age group of 15-29 years.
- The absolute number of job seekers in the age group of 20-39 years were 276.3 lakh, which was approximately 71.1percentage of total number of job seekers on live register at the end of the year 2010, which has increased to 72 percentage in 2017.

- The number of job seekers on register in the age group of 30 years and above have increased during 2017 as compare 2010. The percentage of job seekers in the age group of 30 years and above to the total number of job seekers register was 36.2 percentage during 2017.

### AGE WISE UNEMPLOYMENT (2010-2017)

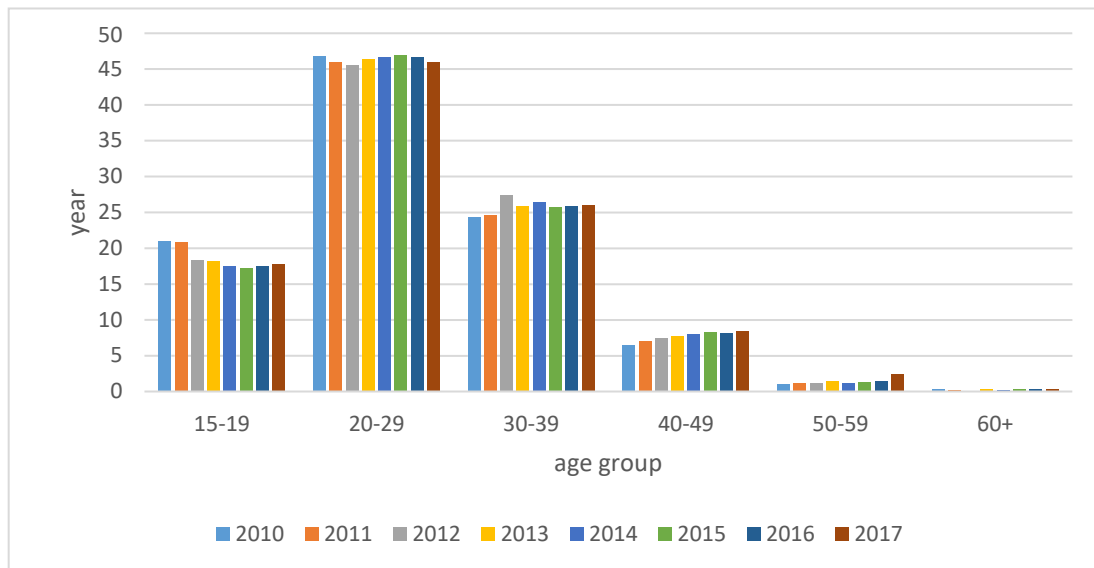


FIGURE -1

### CAUSES OF UNEMPLOYMENT

The major causes of unemployment in India are mentioned below:

- Large population
- Lack of vocational skills or low educational levels of the working population
- Labour-intensive sectors suffering from the slowdown in private investment particularly after demonetization
- The low productivity in the agriculture sector plus the lack of alternative opportunities for agricultural workers that makes transition among the three sectors difficult
- Legal complexities, inadequate state support, low infrastructural, financial and market linkages to small businesses making such enterprises unviable with cost and compliance overruns

- Inadequate growth of infrastructure and low investments in the manufacturing sector, hence restricting the employment potential of the secondary sector
- The huge workforce of the country is associated with the informal sector because of a lack of required education or skills, and this data is not captured in employment statistics
- The main cause of structural unemployment is the education provided in schools and colleges are not as per the current requirements of the industries
- Regressive social norms that deter women from taking/continuing employment.

A group of scholars state that it is a consequence of “Restrictive labour laws that create inflexibility in the labour market”, while organized labour unions and another group of scholars contest this proposed rationale. India has about 250 labour regulations at central and state levels, and global manufacturing companies find the Indian labour laws to be excessively complex and restrictive compared to China and other economies that encourage manufacturing jobs.

The Indian labour laws are “so numerous, complex and even ambiguous” that they prevent a pre-employment economic environment and smooth industrial relations. India needs “labour market reforms that address the needs of both employers and workers”, and it should rewrite its labour laws that protect its workers, provides social security for workers between jobs, and makes compliance easier for the industry (Pravakar Sahoo, 2016). The Indian labor laws are inflexible and restrictive, and this in combination with its poor infrastructure is a cause of its unemployment situation. Unemployment is a major social issue in India. According to the Indian government, (2018) India had 31 million jobless people. The numbers are widely disputed due to unemployment. The uses of digital manufacturing and machinery in factories and garments are leading to unemployment in India, Unemployment is the biggest issue in India. There are unemployment rates declined to 6.5 Percent in January 2021. As the pandemic’s second catastrophic wave battered the country, unemployment shot up to 14.45 percent in the week ending May 16, 2021, and remained at an elevated level of 13.62 percent in the week ending June.

## **TYPES OF UNEMPLOYMENT**

Economists divide unemployment into many different categories. When unemployment is voluntary, it means that a person has left their job willingly in search of other employment.

When it is involuntary, it means that a person has been fired or laid off and must now look for another job.

## CLASSIFICATION OF UNEMPLOYMENT

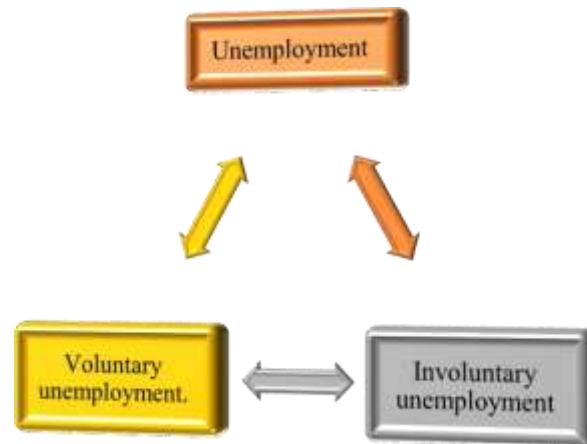


FIGURE -2

### FRictional UNEMPLOYMENT

Frictional unemployment occurs when people voluntarily change jobs within an economy. After a person leaves a company, it naturally takes time to find another job. Similarly, graduates just entering the workforce add to frictional unemployment. This type of unemployment is usually short-lived. It is also the least problematic from an economic standpoint.

Frictional unemployment is a natural result of the fact that market processes take time and information can be costly. Searching for a new job, recruiting new workers, and matching the right workers to the right jobs all take time and effort, resulting in frictional unemployment.

### CYCLICAL UNEMPLOYMENT

Cyclical unemployment is the variation in the number of unemployed workers over the course of economic upturns and downturns, such as those related to changes in oil prices. Unemployment rises during recessionary periods and declines during periods of economic growth. Preventing and alleviating cyclical unemployment during recessions is one of the key reasons for the study of economics and the purpose of the various policy tools that government dots employ on the downside of business cycles to stimulate the economy.

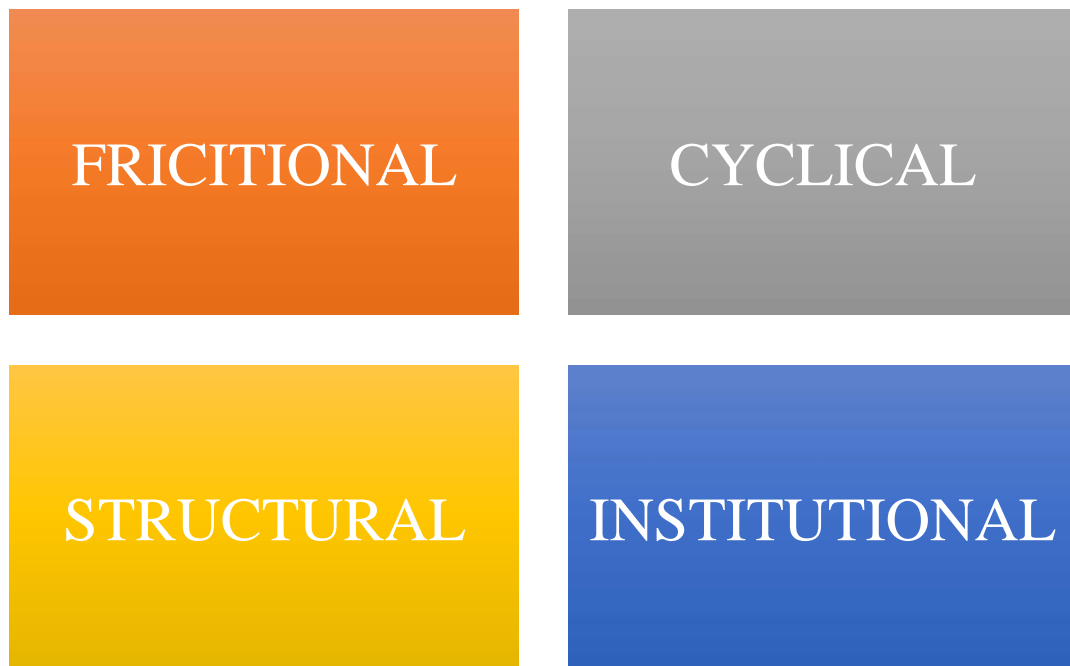
### STRUCTURAL UNEMPLOYMENT

Structural unemployment comes about through a technological change in the structure of the economy in which labor markets operate. Technological changes, such as the replacement of horse-drawn transport by automobiles or the automation of manufacturing, lead to unemployment among workers displaced from jobs that are no longer needed. Retraining these workers can be difficult, costly, and time-consuming, and displaced workers often end up either unemployed for extended periods or leaving the labor force entirely.

### **INSTITUTIONAL UNEMPLOYMENT**

Institutional unemployment results from long-term or permanent institutional factors and incentives in the economy, (Somar Anderson 2022). The following can all contribute to institutional unemployment, Government policies, such as high minimum wage floors, generous social benefits programs, and restrictive occupational licensing laws Labor market phenomena, such as efficiency wages and discriminatory hiring Labor market institutions, as high rates of unionization.

### **TYPES OF UNEMPLOYMENT**



**FIGURE – 3**

### **IMPACT ON UNEMPLOYMENT**

- The unemployment in any nation has the following effects on the economy
- The problem of unemployment gives rise to the problem of poverty

- The government suffers extra borrowing burden because unemployment causes a decrease in the production and less consumption of goods and services by the people
- Unemployed persons can easily be enticed by antisocial elements. This makes them lose faith in the democratic values of the country
- People unemployed for a long time may indulge in illegal and wrong activities for earning money which increases crime in the country
- Unemployment affects the economy of the country as the workforce that could have been gainfully employed to generate resources actually gets dependent on the remaining working population, thus escalating socio-economic costs for the state. For instance, a 1 Percent increase in unemployment reduces the GDP by 2 Percent.
- It is often seen that unemployed people end up getting addicted to drugs and alcohol or attempts suicide, leading to losses to the human resources.

## **MEASUREMENT OF EMPLOYMENT AND UNEMPLOYMENT**

Employment and unemployment were based on Usual Principal and Subsidiary Status Basis (UPSS). The Special Group has viewed that Current Daily Status (CDS) is a better measure to capture unemployment and underemployment, than the usual status, and therefore recommended the use of CDS basis for estimation purpose. The rationale for using CDS as measuring employment and unemployment recommend creation of gainful employment opportunities for the entire additions to labour force. The policies and programmers to fill the gap between requirement and availability of gainful employment opportunities are to be worked out. At any point of time, there is a large unemployed and under-employed workforce not having any gainful employment, although by using the measurement on UPSS basis, several of them are declared employed. This results in over- of the level of employment. To avoid this, largely, the Special Group suggested estimation of the extent of employment and unemployment on CDS basis.

## **EFFECT OF COVID-19 VIRUS IN INDIA**

The Centre for Monitoring Indian Economy (CMIE) recently released the unemployment status report of India for December 2021. According to this report, the unemployment rate in the country was 7.91 Percent in December. It was 7 Percent in November. The highest unemployment rates were reported in Haryana (34 Percent), Rajasthan

(24.1 Percent), Jharkhand (17.3 Percent), Bihar (16 Percent), and Jammu and Kashmir (15 Percent). On the other hand, states such as Karnataka (1.4 Percent), Gujarat and Odisha (1.6 Percent), Chhattisgarh (2.1 Percent) reported the lowest unemployment rates in India. High unemployment rates can be attributed to a combination of delayed economic recovery, a surplus of labour, and a slow agricultural season. The COVID-19 pandemic has had a detrimental effect on the labour market worldwide, causing many individuals to lose their jobs and businesses to close. The CMIE also reported that the unemployment rate for the urban areas increased from (8.21 Percent to 9.3 Percent), and from (6.44 Percent to 7.28 Percent) for the rural areas.

During the lockdown, severe restrictions were placed on the movement of individuals and economic activities were significantly halted barring the activities related to essential goods and services (Omair Kumar 2021). Unemployment rate in urban areas rose to 20.9 Percent during the April-June quarter of 2020, more than double the unemployment rate in the same quarter the previous year (8.9 Percent) Unemployment rate refers to the percentage of unemployed persons in the labor force. Labour force includes persons who are either employed or unemployed but seeking work. The lockdown restrictions were gradually relaxed during the subsequent months. Unemployment rate also saw a decrease as compared to the levels seen in the April-June quarter of 2020. During the October - December quarter of 2020 (latest data available), unemployment rate had reduced to 10.3 Percent. However, it was notably higher than the unemployment rate in the same quarter last year (7.9 Percent) Labour force participation Persons dropping in and out of the labour force may also influence the unemployment rate. At a given point of time, there may be persons who are below the legal working age or may drop out of the labour force due to various socio-economic reasons, for instance, to pursue education. At the same time, there may also be discouraged workers who, while willing and able to be employed, have ceased to seek work. Labour Force Participation Rate (LFPR) is the indicator that denotes the percentage of the population which is part of the labour force. The LFPR saw only marginal changes throughout 2019 and 2020.

During the April-June quarter (where COVID-19 restrictions were the most stringent), the LFPR was 35 Percent, which was lower than same in the corresponding quarter in 2019 (36.2 Percent). Note that female LFPR in India is significantly lower than male LFPR (16.6 Percent and 56.7 Percent, respectively, in the October-December quarter of 2019).

## **EFFECTS**

The unemployment rate attracts a lot of media attention, especially during recessions and challenging economic times. This is because the unemployment rate doesn't just impact those individuals who are jobless the level and persistence of the factors of unemployment have wide-ranging impacts across the broader economy.

In India, this formidable problem will go to an alarming stage unless some positive measures are immediately adopted. The vast mass of unemployed people is a source of great danger to society and the state.

- In despair, these young men may run wild and take the law into their own hand. They may engage in many undesirable activities. Criminal activities are on the rise.
- Unemployment aggravates social unrest and economic imbalance of the country.
- The standard of living of people remains low because of unemployment. The sharp increase in the poverty rate and low standard of public health are also the ill effects of the problem.
- Poor people, who are unemployed, finds it difficult to manage the rising cost of basic Necessities.
- Unemployment is the leading cause for depression among youth.

## **EDUCATED UNEMPLOYED IN INDIA**

India is poised for reaping demographic dividend and leap frog to a higher level of income employment situation utilizing the relatively larger share of youth or working age persons. In total population, the outcome depends on the contribution of youth to National Product. India at present suffers from remarkably high educated unemployment and employ ability of the youth because of their inadequate education, training, and market ready skill. Huge youth unemployment, especially educated unemployment is the surest way to social tension, unrest, and unlawful activities turning the demographic dividend into a demographic nightmare.

## **NUMBER OF EDUCATED JOB SEEKERS (10<sup>TH</sup> STANDARD AND ABOVE) BY EDUCATION LEVEL ALL INDIA FOR THE YEAR 2014-2017.**

Human resources are the most valuable and productive resource. Countries depend on the health strength and skills of their workers to produce goods and services for the consumption and trade. The advance of complex organization and knowledge requirement, as well as the introduction of sophisticated machinery and technology means that economic growth and improvements in welfare increasingly depend on the degree of literacy and educational attainment of population, (International Labour Organization,2022). People predisposition to acquire such skills can be enhanced by experience informal and formal education and training. Information on the employed population by level of educational attainment provides insights into the human capital dimension of employment with potential implication for both employment and educational policy. The employment rate of people according to the education level below upper secondary, upper secondary, non- tertiary or tertiary. The employment rate refers to the number of persons in the employment as percentage of population of working age. The employed are defined as those who work for pay or profit for at least one hour a week, or who have a job but are temporarily not at the work due to illness, leave or industrial action. This indicator measures the percentage of employed 25-64 years old among 25-65 years.

### **THE RELATIONSHIP BETWEEN THE EDUCATION AND EMPLOYMENT**

The relationship between education and employment are determined not only by the function of education to prepare learning for subsequent work tasks and other life spheres, but also by the fact that education selects in an educational meritocracy (social identity) the monetary resources and the social recognitions are largely determined by the individuals level of educational attainment and their competencies fostered during the course of learning. The levels and the type of education, however never are solely matched to professional positions and job requirement. Imperfection is unavoidable because individuals have to be trained to imperfections and to be able to change employment and work themselves proactively.

National traditions of education and training persist to a certain extent according to which education might vary from being understood as the general foundation for professional learning on the job toward being understood as specific training for respective jobs. The dramatically rapid expansion of education is interpreted as serving the need of the knowledge society as an oversupply which might be absorbed and as stimulating changes of the system of

employment and work, the youth with at least high school level of education passed secondary Examination or above as educated a bleak picture emerges. Unemployment is much more pronounced among these groups. While the average unemployment rate among youth is 6.8 per cent, that among school pass outs is 12.1 percent. More than 11 percent of Indian Graduates and post-graduates are jobless. Close to two-third of school pass-outs are self-Employed while close to half of graduates and postgraduates are casual laborers. In terms of relative size too, educated persons are formidable among the unemployed. While less than half of our working people are school pass-outs, close to two-third of all unemployed youth have secondary or higher level of education. Thus, the employment situation of educated youth in India is much worse than the others. The situation is poorer for youth with certain level of technical training. Though such technical training qualifications are quite sought after in the country and are supposed to provide market ready applied skills to the candidates, unemployment among technical degree holders is close to 13 percent while that among diploma holders is about 26 percent.

As a result, contrary to expectations, more than one-fourth of youth with technical training are without any gainful employment. The classified youth according to their skill level, a combination of their general, vocational, and technical education (Tsering yangzom, 2020) on an aggregate about one-fourth of skilled youth are without jobs. Incidence of skilled unemployment is higher among females compared to males and in rural areas relative to urban areas. As against this, unemployment among unskilled youth – those with less than 10 years of schooling or without any vocational/technical training is just about 6 percent. It is thus evident that unemployment among educated youth is a serious problem in India. This has a regional setting too with states like Kerala, Orissa, Jharkhand, Assam, Bengal and Jammu and Kashmir consistently having higher levels of educated youth unemployment compared to national average. On the other hand, unemployment among educated youth is relatively less than national average in the states of Gujarat, Madhya Pradesh, Maharashtra, Chhattisgarh, and Karnataka.

**TABLE - 2**

**NUMBER OF EDUCATED JOB SEEKERS (10<sup>TH</sup> STANDARD AND ABOVE) BY  
EDUCATION LEVEL ALL INDIA FOR THE YEAR 2014-2017.**

(IN THOUSAND)

YEAR	EDUCATION LEVEL	NUMBER ON REGISTER			
		MEN	WOMEN	TOTAL	PER CENT OF LEVEL TO TOTAL
2014	10 <sup>TH</sup> Class passed	1053.8	5764.3	16303.2	40.4
	10 <sup>TH</sup> , +2 Passed	8225.8	4487.2	12712.9	31.5
	Graduates	4622	2940.3	7562.2	18.7
	Post graduates	1099.5	975.2	2074.7	5.1
	Diploma holders and others	1195.2	555.4	1750.6	4.3
	Grand total	25681.3	14722.4	40403.7	100
2015	10 <sup>TH</sup> Class passed	10178.7	5361.4	15540.1	41
	10 <sup>TH</sup> , +2 Passed	7916.2	4311.5	12227.7	32.3
	Graduates	3823.2	2525.4	6348.6	16.7
	Postgraduates	951.7	834.6	1786.3	4.7
	Diploma holders and others	1264	742.3	2006.3	5.3
	Grand total	24133.8	13775.2	37908.9	100
2016	10 <sup>TH</sup> Class passed	11002.6	5278.8	15281.4	41.2
	10 <sup>TH</sup> , +2 Passed	7726	4272.9	11999	32.2
	Graduates	3728.8	2544.6	6273.4	16.9
	Postgraduates	816.2	825.7	1641.8	4.4
	Diploma holders and others	1244.4	673.8	1918.2	5.2
	Grand total	23518.1	13595.7	37113.8	100
2017	10 <sup>TH</sup> Class passed	8827.7	5171.5	1399.3	40.6
	10 <sup>TH</sup> , +2 Passed	6627	4213.5	10840.5	31.4
	Graduates	3665.8	2489.2	6155	17.8
	Postgraduates	710.3	822.9	1533.1	4.4
	Diploma holder sand others	1278.9	692	1970.8	5.7
	Grand total	21109.7	13389.1	34498.8	100

Source: Employment exchange statistics, Ministry of labour employment, Directorate general of employment, (2014-2017).

- The above table-2 explain the educational level of men and women for the year 2014-2017. In 2014 the maximum number of job-seekers (163.03 lakh, (40.4 percent) of total educated job seekers register) was educated up to 10<sup>th</sup> class. Higher Secondary or 12<sup>th</sup> passed accounted for 127.13 lakh (31.5 percent) and Diploma

Holder and others were 17.51 lakh (4.3 percent). Among the educated jobseekers Graduates were 75.62 lakh (18.7 percent), and Post Graduates were 20.75 lakh (5.1 percent).

- The maximum number of job-seekers (155.40 lakh, 41 percent) was educated up to 10<sup>th</sup> Class. Higher Secondary or 12<sup>th</sup> passed accounted for 122.27 lakh (32.3 percent), Graduates, Post-Graduates and Diploma Holders and Others were 63.49 lakh (16.7 percent), 17.86 lakh (4.7 percent) and 20.06 lakh (5.3 percent) respectively. Among the total educated women (137.75 lakh) register, 53.61 lakh were 10<sup>th</sup> class passed, 43.12 lakh were 12<sup>th</sup> passed and Graduates and Post-Graduates were 25.25 lakh and 8.35 lakh respectively.
- The maximum number of job-seekers (152.8 lakh, 41.2 percent) was educated 10<sup>th</sup> standard level. Higher Secondary or 12<sup>th</sup> passed accounted for 120 lakh (32.3 percent), Graduates, Post-Graduates and Diploma Holders and Others were 62.7 lakh (16.9 percent), 16.4 lakh (4.4 percent) and 19.2 lakh (5.2 percent) respectively. Among the total educated job seekers register of employment exchanges, the number of educated women job seeker was 36.6 percent. 52.8 lakh were 10<sup>th</sup> class passed, 42.7 lakh were 12<sup>th</sup> passed and Graduates and Post-Graduates were 25.4 lakh and 8.3 lakh respectively. The educated women having education level of Diploma Holders and Other were 6.7 lakh at the end of the year 2016.
- The maximum number of job-seekers (140 lakh 40.6 percent) was educated 10<sup>th</sup> standard level. Higher Secondary or 12<sup>th</sup> passed accounted for 108.4 lakh (31.4 percent), Graduates, Post-Graduates and Diploma Holders and Others were 61.6 lakh (17.8 percent), 15.3 lakh (4.4 percent) and 19.7 lakh (5.2 percent) respectively. Among the total educated job seekers of employment exchanges, the number of educated women job seekers were 38.8 percent (Employment exchange data 2017) 51.7 lakh were 10<sup>th</sup> class passed, 42.1 lakh were 12<sup>th</sup> passed and Graduates and Post-Graduates were 24.8 lakh and 8.2 lakh respectively. The educated women having education level of Diploma Holders and other were 6.9 lakh at the end of the year 2017.

## **EFFECTS**

The unemployment rate attracts a lot of media attention, especially during recessions and challenging economic times. This is because the unemployment rate doesn't just impact those individuals who are jobless—the level and persistence of the factors of unemployment have wide-ranging impacts across the broader economy (Toby Walter, 2022). Unemployment adversely affects the disposable income of families, erodes purchasing power, diminishes employee morale, and reduces an economy output.

In India, this formidable problem will go to an alarming stage unless some positive measures are immediately adopted. The vast mass of unemployed people is a source of Great danger to society and the state.

- In despair, these young men may run wild and take the law into their own hand. They May engage in many undesirable activities. Criminal activities are on the rise.
- Unemployment aggravates social unrest and economic imbalance of the country.
- The standard of living of people remains low because of unemployment. The sharp increase in the poverty rate and low standard of public health are also the ill effects of the problem.
- Poor people, who are unemployed, finds it difficult to manage the rising cost of basic Necessities.
- Unemployment is the leading cause for depression among youth.

## COST OF UNEMPLOYMENT



FIGURE - 4

### COVID-19

Corona viruses are a large family of viruses that are known to cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). A novel coronavirus (COVID-19) was identified in 2019 in Wuhan, China. This is a new coronavirus that has not been previously identified in humans. This course provides a general introduction to COVID-19 and emerging respiratory viruses and is intended for public health professionals, incident managers and personnel working for the United Nations, international organizations and NGOs.

The World Health Organization (WHO) has declared the coronavirus disease 2019 (COVID-19) a pandemic. A global coordinated effort is needed to stop the further spread of the virus. A pandemic is defined as “Occurring over a wide geographic area and affecting an exceptionally high proportion of the population.”

### RESEARCH GAP

Education many research are focused on the quality of education and Improvement the skill of students reduce the unemployment Bhebh, et.al., (2015), Allais (2012), Lerman (2013), Mohammad Raza Faeazanaga, and Hassan Gholpo (2020), Mental and health condition some researcher are focused on the mental, Healthcare, Emotion, physically factor that affect the

employment opportunity Uddin (2013), Bhosale (2014) Zgozden (2014), Marcelo Manucci (2020), Nazir (2013), Populations/ Migration Population is the major cause to increase the unemployment some case study deals about the Population increases Nwagwu (2014), Axelrad (2018), Gomathi Neela (2016), Nasr Mohammad Pathan (2018), Age / Gender Discrimination this study are focus in the age, Gender discrimination Axelard (2018), Gorlich (2012), Sharma(2012), AuroraTrif (2015). The Policy also reason for unemployment Neder (2019), Sundaram (2018), Ichman (2014), Swathi Merkani(2018), StephenWate (2016) The study deals with tribes unemployment, Kasar Nigir (2014) Poverty Some study deals with the poverty, Bhasin Reena (2019), Vijay Chandra (2020), Pravin Sinha ( 2011). The study focused on the COVID 19 Case study Abdulrahman and Alyoubi (2020), Luisa Errichiello et.al., (2020), Anne Green and Rebeeca Pilay (2020), Vaishali Venu and Gopal Arun Kumar (2020).

The study research gap /identified what are the causes of unemployment and what are the reasons for unemployment. When Unemployment increases the GDP rate decreased are applied in okuns law. Until the year 2019 the unemployment rate was normal, in the year 2020. The COVID-19 impact a lot in the unemployment rate, and the aim of the project is the effects of unemployment rate. Improvement of the technical and practical skills to be developed. Practical knowledge and theoretical knowledge for the student is to be improved. Extra co-curricular activities must be added to the syllabus. Improvement of the manpower to be raised. “Single person single job is to be implemented”. Poor people and illiterate people should get a job without any gender and age variation. This are the factors to reduce the unemployment rate.

## **OBJECTIVES**

The specific objective of the study is to examine to contribution of the unemployment problem in India. The objectives of the study are:

- To analysis the nature of unemployment in India.
- To examine gender wise unemployment and relationship between literacy rate and sex ratio trends in India.
- To found out relationship between inflation, unemployment and GDP.
- To study the unemployment pattern before and after COVID -19.
- To suggest the policy implications.

## **HYPOTHESIS**

- Null hypothesis: There is no short run trade off relationship between and unemployment in India
- Null hypothesis: There is insignificant relationship between inflation and unemployment in India
- Null hypothesis: GDP has no significant impact on unemployment in India
- The available data of inflation and unemployment it has seen in the study that when inflation increases in the year the unemployment rate also increase in the year the unemployment rate also increase in the different ratio or independent ratio
- The data of GDP and unemployment show inverse relation with each other.

## **CONCLUSION**

The study tells about factor affecting unemployment and how the unemployment play a major role in the economic when unemployment has increased there is decrease in the GDP, economic growth and also caused inflation. The growth of the economy goes down when the unemployment rate has been increased also Pandemic makes the unemployment more it changed the people life styles. Government should take steps to control the unemployment Problem. Then only our country will be economically very stronger.

## **REVIEW OF LITERATURE**

## **CHAPTER II**

### **REVIEW OF LITERATURE**

The review of literature relating to the present study on “An analytical study of recent trends unemployment problem in India” as discussed under the following head

2.1. Unemployment in World

2.2 Unemployment in India

2.3 Unemployment and other Reason

2.4 Unemployment due to COVID -19

2.5 Unemployment and Policy

#### **2.1. UNEMPLOYMENT IN WORLD**

Unemployment is very serious issue in the whole world there are hundreds and thousands of people out there who do not have employment (Harvard Vancouver 2018). The problem of unemployment are very serious in all the countries because of growing population and demand for jobs. when the unemployment is more it increase in poverty, an increase in crime rate, exploitation of labor, political instability, mental health and loss of skills. The problem of unemployment is a worldwide reality the developed and developing countries as well as underdeveloped countries facing

**Allais (2012):** identified the three main problems of skill development in South Africa qualification model which was based on and reinforce atomized skill for fragmented jobs quality assurance system and vocational education could not be understood solely by examined the inner dynamics of education and trained. The study also suggested two important agenda of skill development the vocational education policies should be Wider with included social systems the education to meet the long-term needs of the economy.

**Lerman (2013):** found the outcomes of the USA education and trained System. The youth had experienced stagnant education attainment weak and stagnant wages, upward mobility of unemployment, and lack of non-academic skills. The policymakers have focused entirely on academic expert was and education attainment for prepared the youth’s career. The study intervened the programs to improve and builds non-academic and vocational skills, but their outcomes were fragile. The study had suggested the US policymakers should learn from the skill development.

**Alan and Maleckova (2013):** explained the members of the Israeli Jewish underground who terrorized Palestinian resident in the past 1970s and early 1980s were tremendously well educated. The study also indicated that poverty in some way might affect terrorist. On the other side, the terrorist organizations might prefer well-educated youth who are unemployed than illiterate youth so that it fit into a strange situation to be successful. Employment should not be partial so that the youth could be saved from the attractions of terrorist activities.

**Uddin (2013):** focused on the rate at which unemployed youth in the avenues of the street. The study revealed that in Nigeria unemployment among youths had caused major problems which have created Tension between the haves and have not which eventually lead to communal clashes among them. The study focused the issued among the communities of society, there was a Group like Boko Haram, Niger Delta Militant, and there was a case of armed Robbery, prostitution and child trafficked. The study found the known through the Unemployment in Nigeria was larger than before from 2010 with 21 percent 2011 with 23.9 percent 2011 to 2013 with the 16 percent.

**Nazir (2013):** revealed that unemployment was negatively affected the socio economic status of family in urban Faisalabad, Pakistan. The unemployment leads to poor mental health and increases the magnitude of corruption, drug addiction, crimes and suicide in a society. The study concluded that large percentage of the respondents of age group 15-24 believed that the lower rate of education was responsible for the present situation of joblessness.

**Nwagwu (2014):** examined the majority of Nigerian population were in poverty and seem to have failed the social contract with the people. Due to an increase of more rate of unemployment among the youth, the fall had increased. The study investigated the link between unemployment, poverty, and insecurity of lived in the country. The examined revealed that there was a need for a new reform in the areas of skill gained centres, agricultural development scheme for creation of employment.

**Bhosale (2014):** constituted of 80 employed and unemployed married couples had selected From Karmala city and rural area around Karmala by purposive sampled method. The study indicated that employed married couples were better social support than unemployed married couples. The study found out that there was no significant difference in social support among male and female. Employed married couples are good mental health than unemployed married couples and also no significant difference in mental health of Male and female.

**Zogozden (2014):** associated between unemployment, major cardiovascular risk factors and mental health. A cross-sectional study in which data were collected between 2009 and 2010 during preventive health examinations by an occupational medicine service in Gdansk, Poland. Data on blood pressure, rested heart rate, and information about smoked habits, body mass index and history of use of mental health services were collected during these assessments. Multiple logistic regression was used during data analyzed was to adjust for age, gender, education and length of employment. The study resulted shows that participants comprised 3052 unemployed and 2059 employed individuals. After adjustment for age, gender, education and number of previous employments, the odds ratio (or) for hypertension in relation to unemployment was 1.02 [95percent confidence interval (95 percent CI) 0.84–1.23]. There was a statically significant negative association between being overweight and unemployment (or = 0.81, 95 percent CI: 0.66–0.99). Smoked was positively associated with unemployment after adjustment for age and sex (or = 1.45, 95 percent CI: 1.25–1.67). There was a positive relationship between mental ill-health and unemployment among study participants (or = 2.05, 95 percent CI: 0.91–4.65) but this was not statistically significant.

**Bhebhe et.al ., (2015):** focused on the effects of educated youth unemployment in the Africa continent with specific reference to Zimbabwe condition. The study reviewed that when it comes to educated youth unemployment, in Zimbabwe. The number of educated youth who have a degree, diplomas, schools, it revealed that most of the unemployed educated youths were found it difficult to move on to the next stages of marriage, started their own families, moved out of the family home and be independent of parental support. Some female educated youths found that age mate could not married because of unemployment. They married older man who had money and the spread of sexually transmitted diseases included HIV/AIDS while it also disrupts marriages.

**Drasarova and Srnec (2016):** assumed people, primarily women for future generations and in their family prefer an improvement of social situation. The most important role of decreasing poverty was the reduction of unemployment. As one of the basic determinants the development of micro and small enterprises should be considered. In developed countries this was seen basically where these micro and small enterprises were widespread most and have the percentage highest to economic productivity among the other enterprisers that contribute.

**Muhdin Muhammedhussen Batu (2016):** identified the main factors responsible for youth unemployment and constraints they face self-employment in Ethiopia and used

descriptive and cross tabulation analysis, showed that youth unemployment was highly related with regional location, sex, marital status and education. The study also analysed the youths dream to create their own job was constrained highly by shortage of finance and lack of work place and recommended government and others stakeholders need to consider the above determinants and challenges for future intervention.

**Ali Fakh et.al., (2016):** examined the microeconomic determinants of youth unemployment in the MENA region used a unique and novel data on young people aged 15 to 29 from the year 2016. The study resulted the male and graduated from a public school increase the probability of be unemployed and job concerns, corruption, and unequal rights in the society were also found to have a positive incidence on unemployment. The study found that the enhanced gender equality in the labour market, education, family codes, and political participation decreased the probability of employment and also indicated that improved economic inclusion in the post-Arab spring decreased the probability of unemployment.

**Axelrad (2018):** analyzed the data from Israeli labour market and argued that unemployment rates of young People and older workers were often misinterpreted. The study explained that younger unemployed was mainly due to the change in business cycle or policies and other hand unemployment among the older group was only due to their age. The study also suggested to make different policies and programmers to address the younger unemployed and older unemployed separately.

**Nader kabbani (2019):** discussed the early 2000s, youth in the Middle East and North Africa (MENA) region became a focus of intense research and policy at the time, the region had the highest youth population shares in the world as was the highest rates of youth unemployment. The study pointed out the main two factors generated a sense of urgency among policymakers regarded the need to create enough jobs to absorb the come flux of young workers the efforts by 2010, the region had failed to improve employment outcomes for its youthful population youth frustration grew over their social, economic, and political exclusion, exploded in 2011 into protests across the region.

**Marcelo Manucci (2020):** focused pandemic's endless duration turned the post-pandemic period into an indefinite transition that generated new coexistence conditions. The situation transformed work relationships, both physically and emotionally. Beyond cultural and economic diversities, international studies showed common patterns of emotional impact on people related to fear, hopelessness, frustration, and loneliness. The uncertainty permeated the

subjective world of people, close relationships, and social behaviors. Consequently workplaces also suffered the daily dynamics. The emotional features of returned to work and proposes three intervention dimensions to manage these consequences. The challenge for HRD professionals was to create new conditions for the work environment, not only in the physical or health aspects but also in the emotional dimension. The quality of the emotions will define would possibilities of recovery and resilience of people in their work. In the sense, HRD professionals leadership was fundamental in created processes to address threats (Internal and External), promote creativity and innovation in groups, and recover workers' inspiration and confidential

**Abdulrahman and Al-Youbi (2020):** investigated the implications of COVID-19 on the labour market of Saudi Arabia. Data were collected with the help of a questionnaire from both public and private sector employers (n= 234) to inquire about their perceptions of the new skill set required in the changed business environment after pandemics. The study were analyzed with the help of descriptive statistics as well as simple and companion regression. The study resulted indicate that the healthcare, service and education sectors have quickly transformed themselves from conventional to remote forms of worked and consider virtual skills, autonomous worked and effective communication the most important skills for their workforce on the current and the post pandemic scenarios. Interviews were then conducted with educational leaders to develop a conceptual framework by integrated both qualitative and quantitative analyzed of the surveys. The study concluded that beneficial for the educational leadership of higher education institutions (HEWIS) to better align their educational programs with changed market needs. There was not only increase the sustainability of the workforce but also minimize the impact of COVID-19 on the Saudi labour market.

**Rizgar Abdulkarim Abdlaziz, et. al., (2020):** investigated the causal relationship between the shadow economy and unemployment rate for selected Middle East and North African countries. The Toda-Yamamoto causality approach and panel Granger causality test were applied. The study revealed bidirectional causality for Algeria only, unidirectional causality ran from unemployment to shadow economy found for Turkey and Qatar, the vice versa for Bahrain, Jordan, and Lebanon. Moreover, the panel granger causality results show bidirectional causality for the MENA region when one and three lags are used. Nevertheless, unidirectional causality ran from the shadow economy to the unemployment rate was found when two, four, and five lags were crossed.

**Mohammad Reza Farzanegan and Hadsan Gholipour (2020):** investigated the role of quality of education in explained the within country variation of youth unemployment in the MENA region. The study fixed effect regression methodology for a panel of 18 MENA countries from 2007 to 2017 and resulted that had a significant and robust negative (decreased) effect of higher quality of education system on youth unemployment rate. The decreased effect was robust to control of other drivers of youth unemployment, country and year fixed effects. Included full set of control variables showed that a one unit increase in perceived quality of education systems from the Global Competitiveness Reports was associated with approximately 4 percentage points decline in youth unemployment. The study also explained approximately 70 percent of within-country variation of youth unemployment rate in the MENA region. Among control variables, only trade openness and foreign direct investment (FDI) share of GDP show statistically significant (negative) also citation with youth unemployment that trade and foreign investment openness contribute to employment of youth in the region. We suggest some recommendations for policy makers in the region.

**Antonio De Lucas Ancillo and Maria Teresa Del Val Nunez (2020):** analyzed to capture the secular and cyclical movement in the financial markets over the period of considered the high degree of interdependence between the global Covid-19 occurrences and returns volatility of the majorly traded currency pairs. Interestingly both the returns and volatility spill over indexes exhibit both trend and bursts over the period of pandemic. The study resulted are robust to the different VAR lag structure. The effects of global COVID-19 announcement and assess the net effect of financial market volatility on the behavior of the global FX markets in order address new and enhanced risks caused by the upsurge of the COVID-19 pandemic 2021 the purpose was to investigate the current status and future evolution of the workplace within the COVID-19 pandemic context. Documents, publications and surveys from numerous sources have been analyzed to find out more about the employees and organizations experience with remote worked and the advantages and disadvantage of accessed the workplace on pandemic. The study also analysis of the data made possible the identification of patterns within the available literature regarded what had happened and especially, its influence on the workplace. The revolution initiated by COVID-19 had changed the way companies and employees work and would continue and required a constant reinvention of how they operate and caused actions never seen before generated deep changes in the workplace. Therefore the idea of the workplace would never be what was expected before

COVID-19 where reinvention of work technology and safety are key points in its transformation process.

There are different causes of unemployment around the world. The top causes are increased population, lack of education or skill and rising cost, rapid technological changes. The country should build more companies and factories in order to provide more opportunities and positions to respond to the need of the increased population (Harvard Vancouver, 2018). There should be unemployment insurances to help unemployed individuals in their financial problems till they find job.

## **2.2 UNEMPLOYMENT IN INDIA**

The major social issues in India is unemployment. As the India labour law are inflexible and restrictive and its infrastructure is poor, which is actually the main reason for India's unemployment (Priyanka 2021). According to the 2018 Indian government had 31 million jobless people. The use of digital manufacturing and machinery in factories and garments are leading to unemployment in India.

**Ghuman (2011):** concentrated on unemployment in Punjab especially among the educated youth, was very high on March 24<sup>th</sup> problem was unemployment was earlier a survey conducted by the labor Bureau, Chandigarh revealed a high incidence of unemployment in Punjab. The study suggested 10.5 percent of the total worker force as unemployed in the state against the National average of 9.4 percent. The high incidence of unemployment was accompanied by wide spread drug addiction among Punjab Youths.

**Khan (2012):** compared the level of unemployment was generally high in the north as compared to its southern parts of India. The study revealed that level of socio – economic deprivation was high in the north central states and it decreases towards the north south east and north-eastern parts of India. The spatial variations in the level of unemployment might have been due to variations in the level of rural unemployment, household size and high population density.

**Papola (2012):** focused on employment challenge that India faces consists both of created of new job and improved the quality of existed jobs a faster economic growth was the key to meet the challenge. A faster growth even with relatively low employment elasticity could generate reasonably high employment growth with significant increase in productivity with a view to employment growth faster sectors and activities with relatively higher

employment elasticity could be targeted for particularly high economic growth. But the compulsion of raised productivity with a view to improved employment quality in major part of the economy makes it imperative that economy grows at a high rate to generate the required number of new employment opportunities.

**Kengoo (2012):** examined condition of provided education in Manipur which was far behind to get into the practiced global educational technology that leads to Socio-economic development and also the state witnessed the high rate of educated unemployed youths due to indifferent skills attained by the educated youths.

**Kolamaker (2012):** found that the unemployment rate in Punjab was 1.8 percent against the All India Level of 3.8 percent. The study revealed by the employment and unemployment survey 2011-2012 released by the labor bureau, a division of the ministry and employment and also used usual principal status (UPS) approach, revealed that 9 men 6 women out of 1000 persons were unemployment in general category in urban areas against the National unemployment rate 28 men and 25 women. Similarly in rural areas, 11men, 9 women were unemployment against the all India level 29 and 24 respectively surprised facts as various state like Kerala and West Bengal, which were more a aware on labor Right, had much higher unemployment rate of 9.9 percent and 7.8 percent Gujarat with 1 percent had the lowest unemployment rate supports, general self-efficacy and mental which was totally ignored in Haryana it was 3.2 Percent.

**Witte (2012):** examined the attitudes to work, and job application behavior of unemployed and samples were drawn from unemployed people in the North West Province. The population consider of both females and males, whether married, and divorced, widow or widow. The study found that majority of the respondents fell between the ages of 17 and 30 years (54.4 percent), with the minority (7.0 percent) respondent older than 50 years. The results of the study showed that almost 96 percent of them regarded work as important, particularly because it provided regarded job application behavior, the results showed that most of the participants would like to found a job within the month, and they expected to do. Almost 78 percent of the participants were asked people for a job at least once a week or more often. Most of them asked friends and acquaintances for employment information, but unemployed people also reported that they looked out for advertisements. People with poor education had the most negative experiences of unemployment and saw work as more important than did those with better education.

**Sedh Satinder (2012):** found out whether vocational trained was really helpful in improved newline youth employability in these states or not? Based on a primary survey (used a newline purposive sampled method) of three important stakeholder viz., vocational Trained newline Institutes (supplier of trained included IT, polytechnic colleges) newline Establishments (employers included small, medium and large enterprises) and newline pass-out trainees (through a tracer survey) provides an in-depth analysis newline of youth employability in Punjab and Haryana. The study also major the work force participation rate of the vocationally trained youth in both newline Punjab and Haryana was very low. Unavailability of government sector jobs along with newline the skill constraints were among the major distressed factors those determine the new employability of vocationally trained youth. Moreover the poor quality of trained newline along with financial constraints, by and large, restrict a large number of vocationally newline trained youth to take up wage employment in private sector or to begin their own newline business as self-employed. These aspects of employment distress were reflected by newline higher rate open unemployment, participation in general education.

**Rahul and Swaminathan (2013):** explored questions used state-level employment data and argued that shifts in the economy changed the influence of income and substitution effects to which they found a significant relationship between the level of economic development and women's participation rates in the labor force. The study suggested that growth by itself was not sufficient to increase women's economic activity but the dynamics of growth matters and recommended the policies to improve women's labor force participation rate. India could take complete advantage of its future demographic dividend.

**Mitra and Verick (2013):** summary of youth employment and unemployment in India. It shows that educated young Indians face major obstacle because of poverty and low capital. The study reported that rural and urban areas young males are usually employed in casual jobs, while female tends to be self-employed. Though the study also large number of rural women are employed in agriculture whereas rural males in the nonfarm sector. Therefore the examined raises the need for employment opportunities for both in rural and urban youths. The skills development was the key plan and should increase by more comprehensive programmers that aimed to elevate the skills required to get employment by the main vulnerable and disadvantaged youth.

**Mukta (2013):** analyzed educated unemployed women in India by the development needs and aspirations and the socio economic and behavioral problems of unemployed educated female youth. The study was conducted among the 300 registrants of regional employment exchange of Lucknow and employment information and guidance bureau at Lucknow University. The study also study analyzed some salient features of the problem and suggested certain measures to help the policy makers to formulate appropriate strategies and approaches to remove gender disparities.

**Cooper (2014):** aimed effect of unemployment duration on an individual's future income and other outcomes. The study results show a negative relationship between a worker's most recent unemployment spell in the current earing. Unemployment Spells a negatively impact on future homeownership. The consequences of the recent spike in unemployment duration could affect more than Individuals expected lifetime earnings.

**Ilchman (2014):** suggested the problems of youth unemployment are not touched by policies that are made by the Government of India. The policies depend on what the problem was, what to adopt and which directions of change. If the change of the status of unemployment should take place, then the pattern of the policies should also change. Divided the people on the basis of region, age, sex would encourage more misunderstanding between the people.

**Kasar Nigir (2014):** investigated the social adjustment between tribal unemployed and non-tribal unemployed. The study was done on the sample of 200 subjects both 100 tribal and 100 non-tribal unemployed. The analyzed that tribal unemployed have high social adjustment (M=111.15) in comparison to non-tribal unemployed (M=97.51). The study result also showed that male unemployed have high social adjustment (M= 112.08) comparison to female unemployed (M=96.58). The study also examined the result further shows that rural unemployed have high social adjustment (M=117.37) in comparison to urban unemployed (115.42). Further the present research investigates the Emotional competence between tribal and non-tribal unemployed. The study resulted shows that tribal unemployed have less emotional competence (100.85) in comparison to non-tribal unemployed (103.03). The result further shows that male unemployed have female unemployed have high emotional competence (113.01) in comparison to male unemployed (90.87). The result further shows that rural unemployed have less emotional competence (97.62) in comparison to urban unemployed (106.26).

**Mark and Richard (2014):** presented measures of dealing with the problem of educated unemployment and remarked on the theme such as Causes of Educated Unemployment the falling quality of education and controlled the supply of educated people. The case suggested study suggested the causes of educated unemployment in India run deep in the functioning of the Indian Labor Market the hired prices of the government, the institution of joint family, and the personal values of education in Indians.

**Motiram and Naraparaju (2014):** expanded an amount of unemployment that takes into the ratio of unemployment in India. And realize the unemployment in India used the data from National Sample Surveys within the year of 1993-2012 on employment and unemployment. Furthermore, unemployment had come up to a greater extent among higher educated groups. The study concluded result shows that distribution of unemployment had also got worse over the period of time.

**Thorat and Senapati (2014):** assessed the situation of employment and unemployment among SC's and STs and used various reports of NSSO. The study analyzed that the total male employment, the share of SC males into it was relatively lower than other groups in both rural and urban areas. However, while talked of the SC females share in the total female employment, then it was higher than other non-SC's/STs groups irrespective of rural and urban areas. The study focused on difference of shares between the SC's and Non SC's was quite substantial in rural Punjab apart from some other states. Found that SC males and females had relatively higher proportion in the total unemployment in case of rural areas while, it terms or urban areas the same pattern had been seen. However with regard to STs, their share in the total unemployment was found out to be comparable with non-SC/STs irrespective of areas.

**Vikash (2014):** revealed that all the educated youth whether male or female must get employment with any grade if not the problem of unemployment will create difficulties for the development of the country. The study concluded that population growth and family planned should be realized whereas the entrepreneur agency should give financial help to the unemployed youth to set up Startups and small-scale industries.

**Gomathi Neela (2016):** examined about quantity of problems faced at present by the Indians as the crisis of youth unemployment and explained the number of unemployed youths in the country had reached to an alarmed proportion. The study methods for approximately, 600 million in India were below the age of 25 and roughly 40percent of the Indian population was between 13 to 35 years the study also suggests that population of youth should be checked

if not the youth in India would not be on right track. The problem might come up with the competition for youth unemployment, lack of job skills and skill-based jobs.

**Bhadin and Reena (2019):** focused on the problem of poverty and unemployment faced by almost every third world country and India was not an exception. The study believed that both are positively and directly linked as both tend to move or progresses in same direction. The poverty and unemployment were the two sides of the same coin and tend to move hand in hand. The study suggested the both national and international level both tend to move away from each other or there exist a trade-off. And a needed was felt to see the role of the economic development in tackled these twin problems. Therefore, the study aimed also to check the relationship between poverty, unemployment and economic development at the State level.

**Vinay Chandra (2020):** concentrated India was one of the fastest growing economies in the fastest growing economy today India had the largest youth population. youth most valuable assets of our country they were fully all potential enthusiastic and a great worked capacity they determine the future of the nation they are the important pillar who transform India into a developed nation Indian youth face major barriers because of poverty and low level of human capital they are productive and add to people who were capable of large undertaking most of the educated youth India or unemployed the study examined or focused on the causes situation present unemployment youth and some possible measures have been suggested.

Unemployment level can be reduce by various steps like use of labour intensive technology, acceleration investment in agriculture, diversification of agriculture, labour –intensive industrial growth, services and employment growth, education, health and employment generation (Subho Mukherjee, 2019). This are the flowing steps to reduce the unemployment level and increase the employment level in the country. And make the country development in various sectors.

### **2.3 UNEMPLOYMENT AND OTHER REASONS**

Unemployment is causes by various reasons that come from both the demand side, or employer, and the supply side, or the worker. Demand side reductions may be caused by high interest rates, global recession, and financial crisis. From the supply side, friction unemployment and the structural unemployment play a great role in the economy. Frictional unemployment is the result of voluntary employment transitions within an economy frictional

unemployment naturally occurs even in a growth, stable economy as worker change jobs (Sommer Anderson, 2022). Structural unemployment can produce permanent disruption due to fundamental and permanent changes that occur in the structure of the economy that marginalized a group of workers such as technological change a lack of skills, or jobs moving overseas to another country.

**Dev and Venkatanarayana (2011):** focused on level of Life satisfaction, quality of life, health consequences, some researches promoted Psychological career resources and coped resources of the young unemployed. The study did not make any effort to assess perceive social support, general self- Efficacy and mental health of educated unemployed youth, which could play an important role in youth life during searched a job . Social support play a vital role because social support affect in youth self-efficacy and mental health.

**Gabriel (2011):** explored differences in the returns to labor market experience for men across occupational categories. The study used the data from the 2003 current population survey indicate and the analyzed of data that an additional year of labor market experience had a significant and positive impact on white and blue-collar workers. White-collar Workers in general earn higher estimated returns to experience than their blue-collar Counterparts, and these differences appeared. While empirical evidences related to be statistically significant.

**Sharad Ranjan (2011):** investigated whether the employment shift from the farm to no-farm sector in Uttar Pradesh. The employment patterns at various levels leads to conclusive evidence that distress push factors have been predominant in driving workers to non-farm employment and also records the link with rural on-farm employment of various factors such as land ownership, education and caste affiliation. Low levels of education and their status as landless earners devoid of capital resources suggested broad distress- induced circumstances of non-farm workers.

**Grath (2012):** applied the particular theoretical approaches that were Human rights; capability; and integrated human development to examine the implication for VET. The study also expressed that ‘a VET toolkit’ had spread globally to reform public provider institutions. The study had suggested that human development and capability approach should be used to improve the nature of VET alongside technical aspects with significant curriculum and pedagogies implications.

**Gorlich (2012):** concentrated on reduced unemployment was a challenged task. Tackled youth unemployment without doing it at the expense of other age groups could be even

more difficult. However, solutions are abundant: some more specific and applicable only to particular environments, others more general and flexible some are more disputable, others more widely accepted. The study also examined had been to inform and to serve as a foundation for a discussion that would generate more and novel solutions.

**Kluve (2012):** reviewed the literature which have dealt with three types of groups such as; low skilled and unskilled workers; skilled workers are transition between jobs; and skilled youth transition from schools to works. The trained related active labor market programs (ALMPs) are often designed and implemented without the full understand of the market failure in developed world. Therefore, it was the requirement in the developed countries for mobilized more efforts and resources to measure skill gaps better, understand the market failure or Constraints that cause them and identify the right intervention to correct the economy condition.

**Robalino and Almeida (2012):** expressed that better policies would first require a superior instrument to measure skills and access their effects on labor market outcomes in developed countries. There was a need to develop a sound country level survey of workers and firms that were regularly administered and measure the supply and demand of technical, cognitive and non-cognitive skills.

**Vanzanzara Rekrha (2012):** addressed the stress and suicidal tendency among youth of educated unemployed in relation to gender and area of residence, and indicated that significant difference was existed between educated unemployed urban and rural male, educated unemployed urban male and urban female, urban female and rural female on stress. The study found that there was significant difference between educated unemployed urban male and female, rural male and female and urban and rural females on suicidal tendency.

**Pettersson (2012):** used quantitative and descriptive character and a convenience sample of 64 unemployed males and females at a job-Centre in East Midland, England. The questionnaire consisted of 12 questions about the participant's age, gender, education, length of unemployment, social support. Rosenberg's self-esteem scale was also added into the questionnaire and analyzed by used a liker scale. The study showed, that the majority of the unemployed scored 30 or higher on the self-esteem scale which indicates a low self-esteem accorded to Rosenberg's self-esteem scale. Regarded social support from friends job loss or unemployment, the majority of the unemployed with a low self, confined they didn't have social

support from friends during unemployment. A small part of the unemployed who had high self-esteem, felt they had social support from friends during unemployment.

**Sharma (2012):** Examined and compared the level of well-being of employed youth with unemployed youth in both the genders. A 2 X 2 Factorial design was used to study the role of unemployment in Well-being. The subjects were divided into two sub groups of employment i.e. employed (n=200) and un-employed (n=200), these subjects were further divided into two sub-groups based on genders, males and females included in equal number. A males was drawn randomly from Shimla district of Himachal Pradesh, aged between 21 to 45 years with mean age 38.5. The study revealed that employed youth have reported significant higher level of well-being than un-employed youth irrespective of the gender, and there was a detrimental impact of unemployment on the wellbeing of youth.

**Ifeakachukwu (2013):** used co-integration and error correction model approach and also recommended there was stood the need for government to take urgent steps against the raised unemployment rate because unemployment was a major obstacle to social progress and results in a waste of trained manpower.

**Majumder and Mukherjee (2013):** examined explains how the economic growth depends on the contribution of youth, and raise of educated youth unemployment was given birth too many social issues with full of tension in terms of conflict among the society and turned into a nightmare among the society. The issue of education that includes skill development uncertainties among young in India.

**Bimal Kanta Nayak (2015):** examined the causes of unemployment, affected socio-economic of condition of youth in Gondar town the primary data was collected from unemployed Youth in Gondar town. Random sampled techniques were employed in the study for data collection. The sample constitutes 50 individuals from that locality, and showed that the majority of youth (82 percent) search for job from 1 to 4 years. The study founded that long period of searched of job, unemployment increase the related Problem also extended, 78 per cent of the total respondents pass their time by chewed chat smoked cigarette, drinking alcoholic beverages and other related activities, around 70 percent of respondents were users of drugs on result of Unemployment. There have been significant increases in educational attainment however, there had not been as much job creation to provide employment opportunities to the newly educated job seekers. The study suggested there was a need to

improve labor Productivity of the employees in the sector by aligned formal education programs to the practical skill needs of the country.

**Aurora Trif (2015):** evaluated the reemployment encompasses reinstatement and reengagement with a former employer as well as getting a new job with another employer. The process of transition from unemployment to reemployment was often much challenged. The main aspects that affect the success of reemployment could be categorized in three sets of interrelated factors. First, the study focused personal aspects that contribute to reemployment success were the job seeker's human capital (have job-related knowledge, skills and abilities), social capital (have a large social network of friends) and personality traits (extroversion and self-efficacy). Age, racial, ethnic and gender discrimination might limit the reemployment success. Second the study revealed an intense job search process used a diversity of formal and informal sources of job information was associated with faster reemployment. Finally, situational aspects, such as the availability of jobs in the labor market as well as accessibility to outplacement programmers and job trained affect the success of reemployment

**Strakova (2015):** concentrated on Czech Republic had the highest vocational Enrolment among member countries of the Organization for Economic Cooperation and Development (OECD). The high proportion of youth engaged in apprenticeship Education. The trained and apprenticeship enhance youth employability. But there was also a lack of coordination between trained providers and industries, the asymmetric information in youth labor market. The study had suggested the policy makers should improve the vocational trained through interlink the skills stakeholders.

**Uriah and Ololube, et.al., (2015):** aimed to test the relationship between intellectual backgrounds, socio-economic status, and gender so that Rectification for youth who were restless due to unemployment could get the positive Development in Rivers State. The basic roles of youth issue unemployed have Implication on educational development, which tends to be linked across the world. The examined was addressed to the Nigerian government, stakeholders, and researchers resulted the relationship between intellectual backgrounds, Socio-economic status, and gender which in turn affects educational development.

**Dilip Bhatt et al., (2016):** examined says the stress and suicidal Tendency among youth of educated unemployed in relation to gender and area of Residence. The study Indicated that significant was existed between educated unemployed Urban and rural male, educated unemployed urban male and urban female, urban Female and rural female on stress and there

was significant difference was also existed between educated unemployed urban male and female, rural male and female and urban and rural females on suicidal tendency.

**Legesse (2016):** stated that youth unemployed after get employment would bred improvement, hence it need to be done at the earliest as unemployment had various negative effects on the society. The study indicated that youth being unemployed were more likely to abuse drugs and it encourages the growth of crime and violence in societies. Unemployment issue had driven many young women and girls into sex work in Africa as unemployment leads to a painful life that forces a person into a low character.

**Kamaljeet Sed (2016):** pointed out the industrial structure whether public or private was in shambles thereby failed to absorb a big chunk of educated youth of the State. Due to weak or no private Sector, the educated unemployed youth of the State have cloned themselves only towards government sector which was seems to have reached a point of saturation in terms of absorption of educated manpower the study emphasized on the theoretical and practical applied trained the Government at Central, State, Local level and the civil society should take effective steps in collaboration with one another to Solve the problem of widespread unemployment in India and Punjab make full Utilization of idle resources and idle manpower for better and prosperous future of the Nation.

**Radha Krwashna (2016):** measured the unemployment rate the usual status approach was not high the member employment people were large the unemployment was large in the harbor area then the rural area the unemployment rates were low among the literate and increase with the educated level it was very high among the educated females in rural which are two times more then made a new employment this was only due to a slow of migration among the women from the rural to urban area.

**Rita (2016):** assessed the extent and prevalence of unemployment among young to found out the association between demographic variables (age, gender, Types of family, etc.), level of Perceived Social Support (PSS), General Self-Efficacy (GSE) and Mental Health (MH) of Educated Unemployed Youth (EUY) And to find out the relationship between PSS, GSE and MH of EUY The study indicated that there was positive relationship between perceived social support and general self -efficacy of educated unemployed youth and founded significant relationship. The result indicates that there was positive relationship between the perceived social supports and the mental health of educated unemployed youth and founded significant relationship. The study found out result that there was positive correlation relationship between

general self and mental health of educated unemployed youth and founded not significant relationship.

**Harded and Mihaela Neamtu (2018):** applied the model of unemployment with Migration and delayed policy intervention. They assumed that job search was open for both native unemployed and migrant workers, they consider five variables.

- Number of unemployed person,
- Number of employed person,
- Number of newly created vacancies through government,
- Number of presents jobs in the market,
- Number of immigrants that become part of the labor workforce.

The study introduced distributed time delay in two different terms in the rate of creation of new vacancies through policy action. They analyzed of policy of control unemployment with delay. They found the effect of migration and delay on unemployment of the territory. They found the condition for stability in absence and presence of distributed delay at the unique equilibrium point. Numerical simulation given to analyzed the analytical result.

**Anoop Khanna (2020):** possessed a challenge of ensured food security and controlled already rampant malnutrition, particularly large among children, which was likely to result in increased infant and child mortality. The study recommended that there was a need to re look at the national migration policies, which should accommodate the assistance and protection of Migrants arrived from, or faced with the prospect of returned to, areas affected by health crisis. Also there was a need to establish resilient food systems that could reduce food insecurity and the pressure to return to origin among migrant.

**Mohd Akhter and Kamaraju (2020):** explored the unemployment was a serious problem which was being experienced by most of the countries throughout the globe. Unemployment was like a giraffe which was easier to make out than to describe. The crisis of unemployment had been in existence for a long time. Nevertheless, in the developed nations it was experienced in its severe form at the time of the great depression (1930's) while in the developed nations it was after the Second World War (1945). The past few years, there had been a slowdown in the growth of employment in India despite the boost in the economic sector. At the same time due to this COVID-19 pandemic lockdown, there had been a

devastated effect on the unemployment rate in India as most of the private companies have fired their employees. The main sufferers of this lockdown are the informal sector employees as the majority of them started loused jobs since construction works were closed. With no capital, thousands of people deserted cities, marched to their homelands for several hundreds of miles away in the absence of government transportation, which showed their intensity of anguish and also examined to delineate the impact of COVID-19 on unemployment.

**Parvathama (2020):** The study employment problems of university graduates focused on the unemployment problem among the university graduates. The study was based on three percent of sample under graduate. Three percent sample of under graduate and post graduate students in various facilities of Bangalore, Mysore, Karnataka and agriculture universities in Karnataka state. It classified the causes of unemployment into two broad categories, external and Internal. The external causes are outside the individual and beyond ones control. While the internal causes often pertain to and emanate from the individual over which a certain amount of control could be exercised. This categorization was relevant to both educated and non-educated unemployment. The important suggestion to tide over the crisis includes self-employment, manual jobs, and jobs outside the country and employment in defense forces.

**Omir Kumar and Shadhank Srivastava (2020):** focused on the International Labour Organization (ILO) and estimated that nearly 2.5 core jobs could be lost worldwide due to the COVID-19 pandemic in 2020. The study also observed that more than 40 core informal workers in India might get pushed into deeper poverty due to the pandemic. The study also we discussed the effect of COVID-19 on unemployment in urban areas as per the quarterly Periodic Labour Force Survey (PLFS) report released last week, and highlighted some of the measures taken by the central government with regard to unemployment.

Unemployment is the major problem in developing underdeveloped countries in development of the country. With population of 1.20 billion in our country the unemployment rate is increasing day by day the problem of unemployment is rising but still many industry are facing the problem of skilled candidate for their company (Jonas 2021). There is a boom of software companies in India outsourcing companies in India, but still facing the problem of unemployment Improvement in education skill based training, computer knowledge and carrier guild lines, job referrals are the remedies to solve unemployment problem in all the country.

#### **2.4 UNEMPLOYMENT ON COVID 19**

The COVID 19 pandemic in India has very severely impacted negatively the industrial unit and others sectors are closed due to lockdown more people have lost their jobs and change in their life style (Dipak Kumar Roy 2021). Childers ,women's, lost their family due to COVID 19 more number of death had been recorded and poverty level has been increased due to loss of job some people had work in pandemic by work from home. But it can only set to the services sector, primary sector and secondary sector have lost their job in the pandemic.

**Anne Green et.al (2020):** A shift to remote worked raised important issues about the changed geography of work and the associated implications for places. It seems unlikely that a 'new normal' after the COVID-19 pandemic will replicate the pre-COVID-19 picture. This had implications for the geography of work, both directly and indirectly because remote worked in some jobs had implications for the sustainability of other jobs previously reliant on them. This chapter traces the possible short- and medium-term implications for places of remote worked, addressed important questions related to (1) the changed attractiveness of places in the context of greater remote worked (2) the future for city (3) a possible revival of outer urban centers, market towns, and rural areas (4) implications for geographical segregation and inequalities as different sub-groups face different possibilities for remote worked; and (5) the implications of remote worked for place-based policy.

**Chitra et.al., (2020):** The COVID-19 lockdown in our country, the air around us was highly polluted due to emission of greenhouse gases for over centuries. Melted of glaciers and rise of the sea levels were evidenced as the alarmed signs of global warmed. Environmental degradation was observed rapidly due to depletion and exploitation of natural resources like soil, water and air. But there are few changes observed in the environment after the country's lockdown due to coronavirus pandemic. The effects of lockdown are also entwined with human and political effects such as uncontrollable public mobility, poor access to health care due to lack of sufficient medical facilities, unemployment, migrants' crisis, starvation and prevailed poverty. The entire country people by social, economic and psychological effects in day-to-day life, this lockdown had given to the nature the scenarios in environment especially with enhanced air quality, cleaner water and undisturbed pristine forest. The actual picture of the eco-processes that reduced man-made pollution in air and water as well as disposal of domestic or biological waste along with societal implications after imposed lockdown in the state of Tamil Nadu.

**David Blustin (2020):** explored how this unemployment crisis might differ from previous unemployment periods; examined the nature of the grief evoked by the parallel loss of work and loss of life; recognized and addressed the privilege of scholars; examined the inequality that underlies the detonate impact of the crisis on poor and worked class communities; developed a framework for evidence-based interventions for unemployed individuals; and examined the work-family interface and unemployment among youth.

**Luwasa Errichiello (2020):** investigated the current status and future evolution of the workplace within the COVID-19 pandemic the study analyzed to found out more about the employees' and organizations' experience with remote worked and the advantages and disadvantages of accessed the workplace in pandemic. The study analyzed of the data made possible the identification of patterns within the available literature regarded what had happened and, especially, its influence on the workplace. The revolution initiated by COVID-19 had changed the way companies and employees work and would continue doing so required a constant reinvention of how they operate and caused actions never seen before, generated deep changes in the workplace. The idea of the workplace would never be what was expected before COVID-19, where reinvention of work, technology and safety were key points in its transformation process. Thus remote worked had been implemented without a rational plan of interventions based on remote work-enabled technologies, managerial practices, and resources. The role of "supported" structures and practices the effective implementation of remote worked in the post-COVID era. The study relayed of a multi-national IT company with a long experience with remote work arrangements, focused on mobile work and virtual teams and looked at expectations and actions of remote workers in relation to organizational support. The study also conducted that organizational support to remote worked based on formal procedures, adequate evaluation systems, tools for self-management, blended trained programs, supportive leadership style, along with a collaborative work environment and a remote culture.

**Vawashali (2020):** evaluated the impact of corona pandemic on the psychosocial life of Coimbatore south population cross-sectional randomized study was conducted at Coimbatore South, Tamil Nadu, India, between April 26, 2020, and April 30, 2020. The sample size was 600. The 600 people, 59.5 percent were males and 40.5percent were females. The majority (82.5 percent) of people felt that they were safe in pandemic majority of people (61 percent) felt that the modern lifestyle was the cause for the pandemic and 66.9 percent of the people increased the usage of traditional and natural remedies during the lockdown. The study

also infer that the majority of the people (55 percent) enjoyed break from their routine with an eye on their education and career.

**Paige Guarino (2020):** reviewed as a major antecedent that set the stage for the unemployment crisis that now defines this era and overviewed of the nature of the needs that worked optimally could fulfil was presented, which include survival, social connection/contribution, and self-determination. The loss of work was then connected to the notion of existential terror, which captures the emotional imperative to survive as well as the need to manage the psychological consequences of threats that undermine existence. The study suggest for mitigated the impact of job loss and its attendant sense of terror were then presented which include systemic interventions relational and psychotherapeutic support of individual.

**Radhicka Kapoor (2020):** attempted to understand the effect of the COVID-19 shock on the labour market in India by examined the vulnerabilities of the workforce used data from the Periodic Labour Force Survey (2018-19) and with simply 24 percent of the workforce engaged in regular wage salaried jobs offered a steady flow of income and a mere 2.2 percent in regular salaried jobs with a written job contract for a period of more than three years and access to all social security benefits, a disproportionately large share of the workforce was likely to face job and income losses as a consequence of the dual shock of the pandemic and lockdown. The study expected to see widened disparity in the labour market between the relatively less educated workers who predominantly work in informal work arrangements in sectors such as agriculture, manufactured, construction, trade, hotels and restaurants which have been most vulnerable to the first wave effects of the pandemic and lockdown, on the one hand, and the small proportion of better educated who have regular formal jobs in sectors that were more amenable to remote work. While direct income support was the principal means of provided immediate support to the vulnerable and displaced, there was also a need to provide wage support to enterprises to prevent further job losses. Given that the COVID-19 crisis comes on the back of pre-existed high unemployment and underemployment, there was a need to put in place a clear and comprehensive plan of productive employment generation. Created well-good jobs was not just an end in itself but was also a means of boosted aggregate demand and enabled economic recovery.

**Saad (2020):** focused on COVID-19 crisis on G20 countries moved rapidly to provide unprecedented levels of emergency support to keep households and companies afloat, protect jobs and incomes and prevent the economy from collapsed. In the months, as the peak of the

COVID-19 pandemic subsides and G20 countries increased turn to re-open their economies, policymakers would need to maintain the composition and characteristics of support packages, targeted support where it was needed most, and encouraged a return to work where possible. Alongside efforts to address the health emergency brought about by the COVID-19 pandemic, countries across the G20 have adopted a vast range of emergency measures aimed at supported firms liquidity in the face of mandatory business restrictions, quarantines and plummeted activity. Among these measures, government-financed short time work and wage subsidy schemes, have been adopted in a number of G20 countries to minimize job losses. These schemes, which allow firms experienced a temporary lull in business, to receive support for a share of the wages of employees worked reduced hours, appear to have averted a massive initial surge in unemployment in these countries. The expansion of the coverage and level of sickness benefits and paid sick and care leave in many countries also played an important role protected the jobs, incomes and health of workers.

**Teodora Boneva, et . al., (2020):** presented the real time survey evidence from the UK, and Germany showed that the labour market impacts of COVID-19 differ considerably across countries. The study also focused the employees in Germany, which had a well-established short-time work scheme were substantially less likely to be affected by the crisis. Within countries the impacts were highly unequal Workers in alternative work arrangements and in occupations in which only a small share of tasks could be done from home were more likely to have reduced their hours, lost their jobs and suffered falls in earned. And concluded less educated workers and women are more affected by the crisis.

**Wolfram kawohl (2020):** measured the COVID-19 pandemic had led to the introduction of strong restrictive and substantial effect on the global economy, included an increase in the unemployment rate worldwide. In a study we modelled the effect of unemployment on suicide on the basis of global public data from 63 countries, and we observed that suicide risk was elevated by 20–30 percent when associated with unemployment during 2000–11 (included the 2008 economic crisis). The study used the model to predict the effects of the currently expected rise in the unemployment rate on suicide rates. Close to 800000 people die by suicide every year. Estimated (intercept, sex, age group, and unemployment) to describe the non-linear connection between unemployment and suicide. The study applied the overall estimates to World Bank Open Data (worldwide number in the labour force in 2019, unemployment rate [modelled estimate from the International Labour Organization] for 2019, and male and female populations in 2018 in the four age groups). Because the model predicted

only 671 301 suicides with this data, instead of 800000 added a correction term of 0.17 to address differences in space (194 vs 63 countries) and time (2020 vs 2000). The expected number of job losses due to COVID-19 were taken from the International Labour Organization's press release from march 18, 2020,<sup>1</sup> reported a decline of 24.7 million jobs as a high scenario and 5.3 million jobs lost as a low scenario. In the high scenario, the worldwide unemployment rate would increase from 4.936 percent to 5.644 percent, which would be associated with an increase in suicides of about 9570 per year. In the low scenario, the unemployment would increase to 5.088 percent, associated with an increase of about 2135 suicides.

**Vinod, et al., (2021):** found the uncontrolled joblessness that unfortunately characterizes this COVID-19 emergency that joblessness affects the mental, monetary, and social prosperity of people and networks. Joblessness that had archived its effect on emotional well-being commitment diagrams an exploration plan that would educate practice at individual and fundamental levels to help and continue individuals as they wrestle with the overwhelmed test of looked for work and recouped from the mental and professional aftermath of this pandemic. The study concluded that the food administrations industry over the globe was normal endure a shot the circumstance in India was particularly terrible given the enormous level of individuals utilized in the casual economy who have no security net or substitute salary.

Create a granular view of who needs helps to keep their job or to find new work. Countries, regions and cites can quickly develop a granular view of where jobs are at risk and where there is additional demand for labour- by sector, occupation, demographical, and geography (Martin hensherr 2020). That view need to put special focus on small businesses and the most vulnerable workers, including those in the big economy and the informal sector. As governments prepare to reopen economies post lockdown, they need to smart maximize employment and protect against new infections flowing global guidelines and those of their local public-health agencies.

## **2.5 UNEMPLOYMENT AND POLICY**

It is essential that labour intensive technology should be encouraged in place of capital intensive technology, changing in educational system, policy regarding seasonal unemployment, expansion of employment exchanges, more assistance to self-employed people and more productive employment, more importance to employment programs rate of capital formation (Pooja Mehta 2020). This are the step to control the unemployment in the country.

**Adil (2011):** applied the pertinent theories of unemployment that were rationally Developed and established by economists that stand for various schools of economic Thought like Keynesian and the classical schools of political economy, hence these Theories are employed to develop some essential public policies that could be used to diminish the unemployment rate. The study examined establishes that there were variables for mounted the level of employment, and variables are opportunities of high sales and Growth, state of cheap loans for project, amplification in private and public Investments, improved skills for workers, upgraded in technological growth, dropped Tax, accessibility of competitive entrepreneurs, continuous enlargement in Productivity, the decline of prices such as oil, and finally the provision of job Information. The study also indicated that governments could play a major role in increased the level of employment.

**Pravin Sinha (2011):** adopted the socialist form of development to overcome these problems and also Introduced a system of central planned to attain balanced overall growth while poverty and unemployment. However, 3.5 per cent annual growth proved insufficient. In July 1991, by introduced the New Economic/Industrial Policy (NEP) India implemented a fundamental shift in its economic policy, adopted market-led economic development. By dismantled the restrictive policies of the government, the NEP displaced the dominance of the public sector. It released most of industries from the control of the state. The NEP opened up international trade and investment, deregulation, initiation of privatization, tax reforms and inflation-controlled measures. The study also focused government in adopted NEP was to achieve higher economic growth and to overcome unemployment and poverty.

**Venkatanarayana and Mahendra Dev (2011):** investigated the proportion of youth in the labour force had been declined, their high proportions in the labour force indicate that the problem of youth unemployment and underemployment would remain a serious policy issue for many more years to come in India. The employment and unemployment situation of the youth in India last two-and-half decade's viz., 1983 to 2007-08. The study analysed the trends in labour force and workforce participation rates, unemployment, joblessness, worked poor, growth and employment elasticity etc. The recommended the policy for increased productive employment and reduction in unemployment for the youth, and poor employability of the workforce would hamper the advantages due to demographic dividend if measured were not taken to improve the educational attainment and skill development of the youth.

**Moinak (2015):** suggested the youth unemployment and its impact on government policies in India. The study also discovered that employment crisis in India was due to the economic crisis mismatch of job market result into a growth of unemployment.

**Macro Battaglini (2016):** investigated the fiscal policy and unemployment in Nigeria. Examined the impact of government capital and recurrent expenditure on unemployment rate in Nigeria. The study utilized aggregate annual data from 1980 to 2013 analyzed with the co-integration and ECM methods by used Augmented Dickey Fuller (ADF) showed that all the variables were stationary at various levels. The Johansen-Julius co-integration employed in tested for long run equilibrium relationship among the variables indicated that integrated relationship was found among the variables. The parsimonious ECM result revealed that the two independent variables (Government Capital and Recurrent Expenditure) have both negative and significant relationship with unemployment in Nigeria. The result also revealed a long run relationship between fiscal policy and unemployment, as depicted by both the sign and the statistical significant of the coefficient of the ECM. From the result so far, it was obvious that fiscal policy was effective in reduced unemployment rate in Nigeria. The study recommended amongst others that expansionary fiscal policy should be encouraged as it plays a vital role in the development process of an economy and also there should be appropriate policy mix improvement in quality of government expenditure.

**Pontus Rendahl (2016):** concentrated on the equilibrium unemployment dynamics could significantly increase the efficacy of fiscal policy, and economy into a liquidity trap, an expansion in government spend increases output and causes a fall in the unemployment rate. Since movements in unemployment were persistent, the effects of current spend prevail into the future, led to an endured rise in income. As an endured rise in income boosts private demand, an increase in government spend sets in motion a virtuous employment-spended spiral with large effects on macroeconomic aggregates.

**Stephen Coate (2016):** applied the political economy theory of fiscal policy and unemployment. The underlined economy was one in which unemployment could arise but could be mitigated by tax cuts and increases in public production. Such policies were fiscal costly, but could be financed by issued government debt. Policy decisions were made by a legislature consisted of representatives from different political districts. With the available policies, it was possible for the government to completely eliminate unemployment in the long run. However, with political decision marked, the economy always had unemployment.

Unemployment was higher when the private sector experiences negative shocks. When these shocks occur, the government employs debt-financed fiscal stimulus plans which involve both tax cuts and public production increases. When the private sector was healthy, the government contracts debt until it reaches a floor level. Unemployment levels are weakly increased in the economy's debt level, strictly so when the private sector experiences negative shocks. Conditional on the level of workers employed, the mix of public and private output was distorted.

**Nasirmohammad Pathan (2018):** concentrated on the world was faced many serious problems. Unemployment was also one of these problems. There were so many reasons and parameters which affects to the Unemployment. Population, migration, advance technology, shortage of funds in the market etc. Government made efforts to control unemployment by created new vacancies and encouraged People for self-employment. The parameters to develop various model called number of unemployed persons, number of employed persons, number of migrant workers, and number of present Jobs in the market and newly created by government and private sector which affects the unemployment. The unique Equilibrium point of the system and check its stability for both situations in absence of delay as Well as presence of delay for the models. The study verified analytical result by numerical result.

**Emad Attia et al., (2020):** explored the unemployment was one of the main challenges that economy faces. The unemployment rate responds to fiscal policy shocks and used annual time series data for the period from 1976 to 2018 collected from the World Bank and the international monetary fund the study reviled the at the earlier stages, a one standard deviation shock to the government spending decreases the unemployment rate until the period two, then it started to increase until reached to zero in period ten which means a positive shock to government spending had a negative impact unemployment rate. And also focused on the tax revenue temporarily decreases the unemployment rate, then it increases after the period two until it hits the zero level in the period six after that it became positive which means that in the long run, a positive shock to tax revenue had a positive impact on the unemployment rate. The study recommended the Egyptian government to run an expansionary budget to decrease the unemployment rate.

**Santhosh Kumar (2021):** examined the focused on causes of youth unemployment various measures taken by the government and suggested that the policy makers should kept in mind while framed the policies. Self – employment, women self – employment program

skill training for employment promotion and urban wage employment programme. For this scheme the central government shares 75 percent of the cost and state 25 percent of the cost. Swarnajayanti Gram Swarozgar yojana (SGSY) Employment Guarantee Scheme (EEGS), Swarna Jayanti Shahari Rozgar Yojana (SJSRY), Pradhan Mantri Rozgar Yojana (PMRY), Training Rural Youth for Self-Employment (TRYSEM), Jawahar Rozgar Yojana (JRY), Mahatma Gandhi a National Rural Employment Guarantee Scheme( MGNREGS). These measures are taken by the government of India to reduce the unemployment problem. These schemes are very useful for the people who are unemployed.

## **METHODOLOGY**

## **CHAPTER III**

### **METHODOLOGY**

The methodology adopted in the current study on “An Analytical Study of Recent Trends Unemployment Problem in India” is presented and discussed under following heads.

3.1 Selection of the Problem

3.3 Collection of Data

3.3 Tools Used

3.3.1 Growth Rate

3.3.2 Correlation Analysis

3.3.3 Regression Analysis

3.4 Theoretical Framework

3.4.1 Okun’s law

3.4.2 Phillips curve

3.5 Figures and Graphs

3.6 Terms and definitions and

3.7 Limitation of the Study.

#### **3.1 SELECTION OF PROBLEM**

The problem of unemployment has been one of the deepest concern in the most countries of the world it is true that unemployment is a commonly faced by both industrialized developed and non-industrialized underdeveloped countries there is a major problem facing in

India there’s a major source of hardship deprivation and suffering too many people and society at large. Whereas employment determines one’s chances for leading a peaceful and meaningful life high persistent unemployment can signal serious distress in an even lead to social political upheaval. However extremely low unemployment can also be cautionary sign of an overheating economy, inflation, pressure and tight condition for business in need of additional work. There are many people in the world and our country to have failed to secure

a job. As a result they have an insignificant source of income this leads to jobless unemployment to live a dignity life people need to earn money and fulfill their basic needs unemployment nature this arrives a problem of standard of living the lack of money due to unemployment leads to a lack of nutrition's food and unemployment parent cannot give a proper education his/ her child an unemployment person is open to doing a social and unexpected to work to get money thus very often in a society ever there are huge number of unemployed people there will be a great proliferation of thieves bank robberies and much more serious antisocial element. Unemployment adversely affects the disposable income of families, erodes purchasing power, diminishes employee morale, and reduces an economy output.

### **3.2 COLLECTION OF DATA**

This study was based on secondary data resources. Secondary data was collected from various sources like NSSO Employment percent Unemployment survey report, and Periodic Labor Force Survey (PLFS), NSO, Office of the Register General and Census Commission, Ministry of Home Affairs Government of India , National Sample Survey Organization, RBI Work Bank Data 2021, Ministry of Statistical and Planning Implementation (MSPI), Labour Force survey Report, Ministry of Statistical and Program Implementation (PRS), Statista, Employment Exchange Statistics Government of India, Ministry of Labour and Employment Directorate, General of Employment. (2016, 2017, 2018, 2019).

### **3.3 TOOLS USED**

The data collected were arranged and tabulated for giving precise and concise information. Further, the following tools were applied to analyze the data. The following statistical tools were used for this analysis.

- Growth rate
- Correlation
- Simple linear regression

#### **3.3.1 GROWTH RATE**

Growth rates refer to the percentage change of a specific variable within a specific time period and used to express the annual change in a variable as a percentage. Growth rate is calculated as 10 years onces. Growth rate has been calculated by using this formula

$$\text{GROWTH RATE} = \frac{\text{PRESENT YEAR} - \text{PAST YEAR}}{\text{PAST YEAR}}$$

### 3.3.2 CORRELATION ANALYSIS

Correlation analysis was a process of statistical valuation used to study the strength of a relationship between two numerically measured, continuous between variables. Spearman rank Correlation coefficient is a measure of the strength of the association between the two variables. Rank correlation measure of rank correlation statistical dependence between the rankings of two variables. Sex ratio and literacy rate has been calculated. From the year 1981 to 2011-decade wise data has been calculated rank based calculation has been used or the data.

#### FORMULA

$$R_s = \left[ 1 - \frac{6\sum D^2}{N^3 - N} \right]$$

R1 = RANKING 1(Literacy)

R2 = RANKING 2(Sex ratio)

D = R1-R2.

### 3.3.3 REGRESSION ANALYSIS

Simple linear regression is used to estimate the relationship between two quantitative variables. In this model one variable (defined as independent) is the cause of behavior of another one (defined as dependent) variable. Independent variable output (x) and the dependent variable input (y). The basic relationship between X and Y is given b.

#### FORMULA

$$Y = a + bX$$

The Unemployment and GDP are the 2 variables used in the simple linear regression. GDP has been calculated has the dependent variable and Unemployment has been calculated has an independent variable. And also used Hodrick prescott during the year 1991to 2021.Using SPSS software the values are calculated.

### **3.4 THEORETICAL FRAMEWORK**

#### **3.4.1 OKUNS LAWS**

Economist Arthur Okun first started tackling the discussion in the 1960s, his research on the subject has since become known as Okun's law. Okun's law investigates the statistical relationship between a country's unemployment rate and the growth rate of its economy. Okun's law is, in essence, a rule of thumb to explain and analyze the relationship between jobs and growth. Okun's law looks at the statistical relationship between a country's unemployment and economic growth rates. Okun's law says that a country's gross domestic product (GDP) must grow at about a 4percentage rate for one year to achieve a 1percentage reduction in the rate of unemployment. Country's Gross Domestic Product (GDP) may be lost when the unemployment rate is above its natural rate." It goes on to explain that "the logic behind Okun's law is simple. Output depends on the amount of labor used in the production process, so there is a positive relationship between output and employment.

Total employment equals the labor force minus the unemployed, so there is a negative relationship between output and unemployment (conditional on the labor force). According to this empirical hypothesis. Growth slowdown also causes unemployment rate to increase. This relationship is more statistical rather than structural economic framework. Moreover there is no Economic theory which explains relationship between unemployment rate and Economic growth, so the Okun's hypothesis can be used as a yardstick to measure the association between these two variables. Its simplicity makes this hypothesis better in understanding Okun's law has different versions which are

- Difference version
- Gap version

#### **DIFFERENCE VERSION**

The difference version is purely statistical and simple calculations, which can be directly calculated from the available empirical data without making any assumptions. The difference version approach simply regresses GDP growth over changes in unemployment rate. Where as in gap version, dynamic version and production function version there are different techniques are applied to the data with different interpretations and in assumptions. After applying this empirical hypothesis by using different versions, it is compared with the original estimates of Okun's law.

## **GAP VERSION APPROACH:**

In the gap version of Okun's law there are some complications involved in order to calculate natural rate of unemployment and potential output, which can be calculate

$$Y_t - Y_t^* = a + \beta(U_t - U_t^*) + \varepsilon_t$$

Change in unemployment is calculated by using the formula

$$\Delta U_t = U_t - U_{t-1}$$

$U_t$  = previous year unemployment rate

$U_{t-1}$  = Previses year unemployment rate-1

Change in GDP is calculated by using the formula

Unemployment gap =  $\beta$  (Output gap)

$$(U_t - U^*) = \beta (Y_t - Y^*) + \varepsilon_t$$

$U^*$  = Natural rate of unemployment

$Y^*$  = Potential output

$\varepsilon_t$  = Error term in time period t

There have two economic measurements as potential output (which means the total output attained if the resources are fully employed) and natural rate of unemployment (the unemployment rate associated with constant inflation rate) and both cannot be directly estimated from economic data the output is to be Produced at natural rate of unemployment, can be estimated. If there is high rate of unemployment then according to this version, we can say that there is underutilization of resources and if the economy is working at its potential output, then unemployment rate will also be at natural level.

### **3.4.2 PHILLIPS CURVE**

The Phillips curve was a concept used to guide macroeconomic policy in the 20<sup>th</sup> century, but was called into question by the stagflation of the 1970's. A.W. Phillips was one of the first economists to present compelling evidence of the inverse relationship between unemployment and wage inflation. Phillips studied the relationship between unemployment and the rate of change of wages in the over a period of time and he discovered that the latter could be explained by two things

- The level of unemployment
- The rate of change of unemployment.

Phillips hypothesized that when demand for labor is high and there are few unemployed workers, employers can be expected to bid wages up quite rapidly. However, when demand for labor is low, and unemployment is high, workers are reluctant to accept lower wages than the prevailing rate, and as a result, wage rates fall very slowly.

A second factor that affects wage rate changes is the rate of change in unemployment. If the economy is booming, employers will bid more vigorously for workers which means that demand for labor is increasing at a fast pace (i.e., percentage of unemployment is decreasing rapidly) than they would if the demand for labor were either not increasing (e.g., percentage unemployment is unchanging) or only increasing at a slow pace.

Since wages and salaries are a major input cost for companies, rising wages should lead to higher prices for products and services in an economy, ultimately pushing the overall inflation rate higher. As a result, Phillips graphed the relationship between general price inflation and unemployment, rather than wage inflation

Equations are the IS equation  $y_1 = A - ar_0$  in which real income  $y$  is a positive function of autonomous expenditure  $A$  and a negative function of the real interest rate  $r$  the Phillips curve  $\pi_1 = \pi_0 + \alpha(y_1 - y_e)$ , where  $\pi$  is the rate of inflation and  $y_e$ , equilibrium output; and the central bank's Monetary Rule.

### **3.5 FIGURES AND GRAPHS**

The analysis of the statistical data, the data collected was represented in the form of graphs and charts.

### **3.6 TERMS AND DEFINITIONS**

#### **POPULATION**

Unemployment, the condition of one who is capable of working, actively seeking work, but unable to find any work. It is important to note that to be considered unemployed a person must be an active member of the labour force and in search of remunerative work.

#### **UNEMPLOYMENT**

Population is a distinct group of individuals, whether that group comprises a nation or a group of people with a common characteristic. In statistics, a population is the pool of individuals from which a statistical sample is drawn for a study. Thus, any selection of individuals grouped together by a common feature can be said to be a population.

### **SEX RATIO**

The sex ratio is the ratio of males to females in a population. The ratio tends to be 1:1 in most sexually reproducing species, many species deviate from an even sex ratio, either periodically or permanently. Suppose male births are less common than female. A newborn male then has better mating prospects than a newborn female, and therefore can expect to have more offspring. Therefore parents genetically disposed to produce males tend to have more than average numbers of grandchildren born to them. Therefore the genes for male-producing tendencies spread, and male births become more common. As the 1:1 sex ratio is approached, the advantage associated with producing males dies away. The same reasoning holds if females are substituted for males throughout. Therefore 1:1 is the equilibrium ratio.

### **LITERARY RATE**

The literacy rate is defined by the percentage of the population of a given age group that can read and write. The adult literacy rate corresponds to ages 15 and above, the youth literacy rate to ages 15 to 24, and the elderly to ages 65 and above. It is typically measured according to the ability to comprehend a short simple statement on everyday life. Generally, literacy also encompasses numeracy, and measurement may incorporate a simple assessment of arithmetic ability. The literacy rate and number of literates should be distinguished from functional literacy, a more comprehensive measure of literacy assessed on a continuum in which multiple proficiency levels can be determined.

### **GDP**

Gross Domestic Product (GDP) is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period. As a broad measure of overall domestic production, it functions as a comprehensive scorecard of a given country's economic health. Though GDP is typically calculated on an annual basis, it is sometimes calculated on a quarterly basis as well

## **INFLATION**

Inflation is the decline of purchasing power of a given currency over time. A quantitative estimate of the rate at which the decline in purchasing power occurs can be reflected in the increase of an average price level of a basket of selected goods and services in an economy over some period of time. The rise in the general level of prices, often expressed as a percentage, means that a unit of currency effectively buys less than it did in prior periods. Inflation can be contrasted with deflation, which occurs when the purchasing power of money increases and prices decline.

## **PER CAPITA INCOME**

Per capita income is a measure of the amount of money earned per person in a nation or geographic region. Per capita income can be used to determine the average per-person income for an area and to evaluate the standard of living and quality of life of the population. Per capita income for a nation is calculated by dividing the country's national income by its population.

## **EMPLOYMENT EXCHANGE**

An Employment Exchange is a government agency that assists job seekers in finding work. Candidates who have registered with an Employment Exchange are referred to employers for job openings that have been published. Employers can post job openings on employment exchanges and pick from among the registered candidates.

## **CONSUMER PRICE INDEX**

Consumer Price Index (CPI) is designed to measure the changes over time in General level of retail prices of selected goods and services that households purchase for the purpose of consumption. Such changes affect the real purchasing power of Consumers' income and their welfare. The CPI measures price changes by comparing, through time, the cost of a fixed basket of commodities.

## **COVID -19**

COVID -19 is a largest category for an RNA virus. Corona virus are a group of related viruses that cause disease in mammals, birds and humans. Corona virus cause respiratory tract infections it cases cold, fever known as COVID-19 the newly identified corona virus can pneumonia and like other respiratory infections it has an incubation of between 1 and 14 days.

### **3.7 LIMITATIONS OF STUDY**

- It is a macro level study. Thus, the findings of this study may not be applicable to the micro level.
- The study has been taken from (1999-2020) year wise if monthly data have been available the result might have been different.

## **RESULTS AND DISCUSSION**

## **CHAPTER IV**

### **RESULTS AND DISCUSSION**

The result of study “An Analytical Study of Recent Trends Unemployment Problem in India” are discussed under the following heads:

- 4.1 Analysis of Growth Rate Population in India
- 4.2 Analysis of Growth Rate and Unemployment Rate in India
- 4.3 Correlation relationship between Sex Ratio and Literary Rate in India
- 4.4 Regression of GDP Rate and Unemployment Rate in India
- 4.5 Regression of Per Capita Income and GDP in India
- 4.6 Regression of Inflation and Unemployment in India
- 4.7 Analysis Consumer Price Index in India
- 4.8 Unemployment Due to COVID – 19
  - 4.8.1 Age Wise Unemployment Due To COVID-19

#### **4.1 ANALYSIS OF GROWTH RATE POPULATION IN INDIA**

Population growth rate typically refers to the number of people in a single area whether it may be a city are town, region, country are the world. Population can be calculated by census data taken from 10 years once. The world population hit 6.5 billion on 24<sup>th</sup> February 2006. The United Nation Population fund designated 2<sup>th</sup> October 1999 has the approximate day on which world population reached 6 billion. India current population (20.2.2022) as 1,401,939,406. Based on world meter elaboration on the latest United Nations. India population equivalent to 17.7 percentage of world population. India ranks 2<sup>nd</sup> in the population growth. (India population UN data estimate, 2022) In January 2022 India’s population crossed 1.41 billion between 1997 -2010 the population doubled to 1.2 billion reaching the billion mark in 1998. India has more than 50 Percent of its population below the age of 25 and more than 65 Percent below the age of 35 the average age of an Indian is 8.4 years, compared to China. The growth rate in 2020 is 11 percent (South Asian India CIA Government central intelligence agency).

**TABLE -3**  
**YEAR WISE POPULATION**

YEAR	POPULATION
1981	71.54 Crores
1991	89.13 Crores
2001	107.5 Crores
2011	121 Crores

Source: Census of India, (2011).

The above table-3 explain the increase in the population year wise, it is based on world meter elaboration the latest nations and calculated in the decade wise from the year 1981-2011. In the year 1981 the population is around 71. 54 crores, in the year 1991 the population lightly increased to 89.13 crores, in the year 2001 the population has boomed to 107.5 crores increased nearly 18.37 crores and in the year 2011 the population became 121 crores. There is increase in the population comparing to the year 1981 to 2011. According to 2022 the population will be 138 crores .it is prediction taken due to COVID -19.

**MAJOR REASON FOR POPULATION INCREASE**

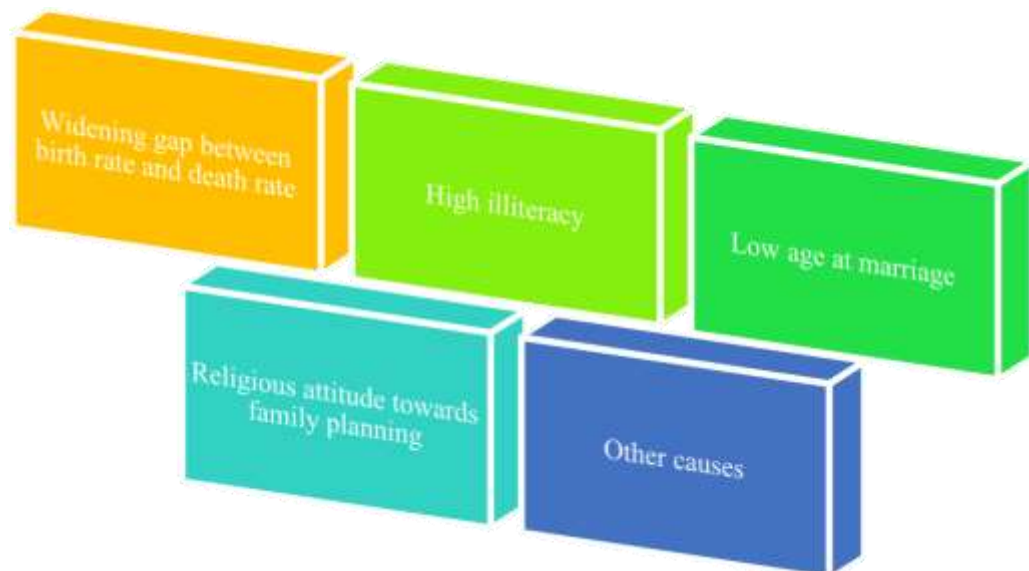


FIGURE - 5

TABLE - 4

**ANALYSIS OF GROWTH RATE POPULATION IN INDIA FROM  
(1981, 1991, 2001, 2011)**

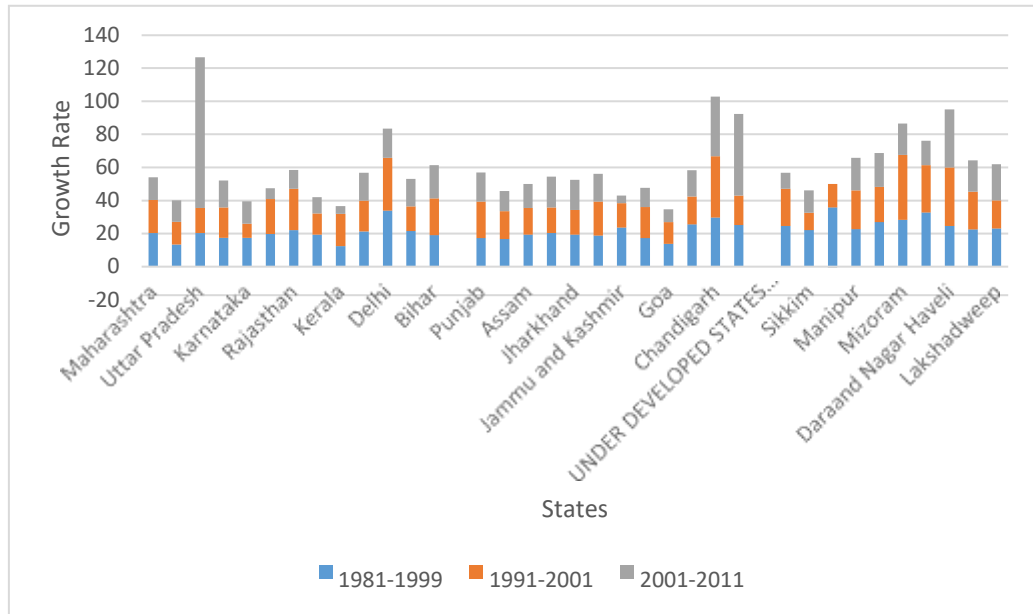
(Based on GDP)

(In percent)

SL.NO	STATES	1981-1999	1991-2001	2001-2011
<b>DEVELOPED STATES IN INDIA</b>				
1	Maharashtra	20.46	19.92	13.7
2	Tamil Nadu	13.34	13.82	12.93
3	Uttar Pradesh	20.39	15.09	91.22
4	Gujarat	17.49	18.47	16.16
5	Karnataka	17.43	8.61	13.49
6	West Bengal	19.83	21.07	6.56
7	Rajasthan	22.14	24.95	11.46
8	Andhra Pradesh	19.48	12.73	9.90
9	Kerala	12.53	19.52	4.68
10	Madhya Pradesh	21.41	18.52	16.91
11	Delhi	33.98	31.98	17.49
12	Haryana	21.51	14.92	16.59
13	Bihar	18.95	22.25	20.27
<b>DEVELOPING STATES IN INDIA</b>				
14	Punjab	17.22	22.12	17.57
15	Odisha	16.71	16.74	12.31
16	Assam	19.51	15.91	14.58
17	Chhattisgarh	20.47	15.45	18.44
18	Jharkhand	19.37	14.90	18.32
19	Uttarakhand	18.79	20.54	16.82
20	Jammu and Kashmir	23.61	14.75	4.69
21	Himachal Pradesh	17.21	18.93	11.46
22	Goa	13.85	13.20	7.61
23	Tripura	25.54	16.94	15.83
24	Chandigarh	29.6	37.27	36.05
25	Pondicherry	25.25	17.72	49.37
<b>UNDER DEVELOPED STATES IN INDIA</b>				
26	Meghalaya	24.73	22.38	9.66
27	Sikkim	22.17	10.49	13.50
28	Nagaland	35.95	13.98	-0.56
29	Manipur	22.65	23.46	19.68
30	Arunachal Pradesh	26.94	21.22	20.6
31	Mizoram	28.41	39.20	18.96
32	Andaman and Nicobar	32.74	28.75	14.60
33	Daraand Nagar Haveli	24.64	35.44	34.98
34	Damanand Diu	22.55	22.74	19.11
35	Lakshadweep	23.08	17.04	21.96

Source: NSSO Employment Percent Unemployment Survey Report: NITI Aaog and Periodic Labor Force Survey (PLFS), NSO, (1981, 1991, 2001, 2011).

## GROWTH RATE FOR THE YEAR (1981 TO 2011)



**FIGURE -6**

The above table-4 and (figure-6) explains the growth rate of the year 1981-2011. In the above table, state of India is taken row wise and decade wise population as column wise from the year 1981, 1991, 2001, and 2011. The state partisan into developed, developing, underdeveloped states. Based on GDP rate. The growth rate has been calculated for every 10 years by comparing 2 value for each state. The table states that maximum growth rate for the year 1981-1991 Andaman and Nicobar, Delhi, Nagaland the minimum growth rate is Kerala, Tamil Nadu, Goa. For the year 1991-2001 the maximum growth rate Dara and Nagar Haveli, Chandigarh, Mizoram, and the minimum growth rate is Karnataka, Sikkim, Andhra Pradesh. In the year 2001-2011 the maximum growth rate was found in Uttar Pradesh, Pondicherry, Chandigarh and the minimum Rate was found in Jammu and Kashmir, Kerala, and Nagaland.

### MAXIMUM GROWTH RATE

- 1981 -1991 =19.27 Percent
- 1991- 2001 = 17.72 Percent
- 2001-2011 = 49.37 Percent

### MINIMUM GROWTH RATE

- The maximum growth rate 49.37 Percent (2001-2011)
- The minimum growth rate 17.72 Percent (1991-2001)

## **4.2 GROWTH RATE ON UNEMPLOYMENT IN INDIA**

Unemployment the condition of one who is capable to working actively seeking work but unable to get work it is very important to note that to be considered unemployment a person must be an active member of the labor force and in the search of remuneration.

Unemployment is a common economic problem faced by each and every country of the world irrespective of their economic system and the level of developing countries sharply differs to that of developed country of the world.

India present unemployment problem is mostly structural in nature classical into two types there are

- Rural unemployment
- Urban unemployment

### **MALE UNEMPLOYMENT**

Male unemployment India was recorded at 5.42 percent in 2020 unemployment reported it happens of job or completion of temporary job while more women and men were labor force reentrants. In 1998 among unemployment men 20 years old over 61.5 percent were job losers and persons who completed studies and got temporary jobs, compared to 43.4 percent of adult women.

### **FEMALE UNEMPLOYMENT**

Date from the period labor force survey by the ministry of statistics and programmer implementation show the female unemployment rate in urban India 13.1 percentage (The World Bank, 2019). The latest value from 2019 is 5.21percent for the comparison the world average in 2019 based on 181 countries is 8.40 percent.

According to NSSO of statistics and programmer implementation the unemployment rate for women has come down from 5.1 percent in 2018-2019 to 4.2 percent in 2019 in India.

TABLE -5

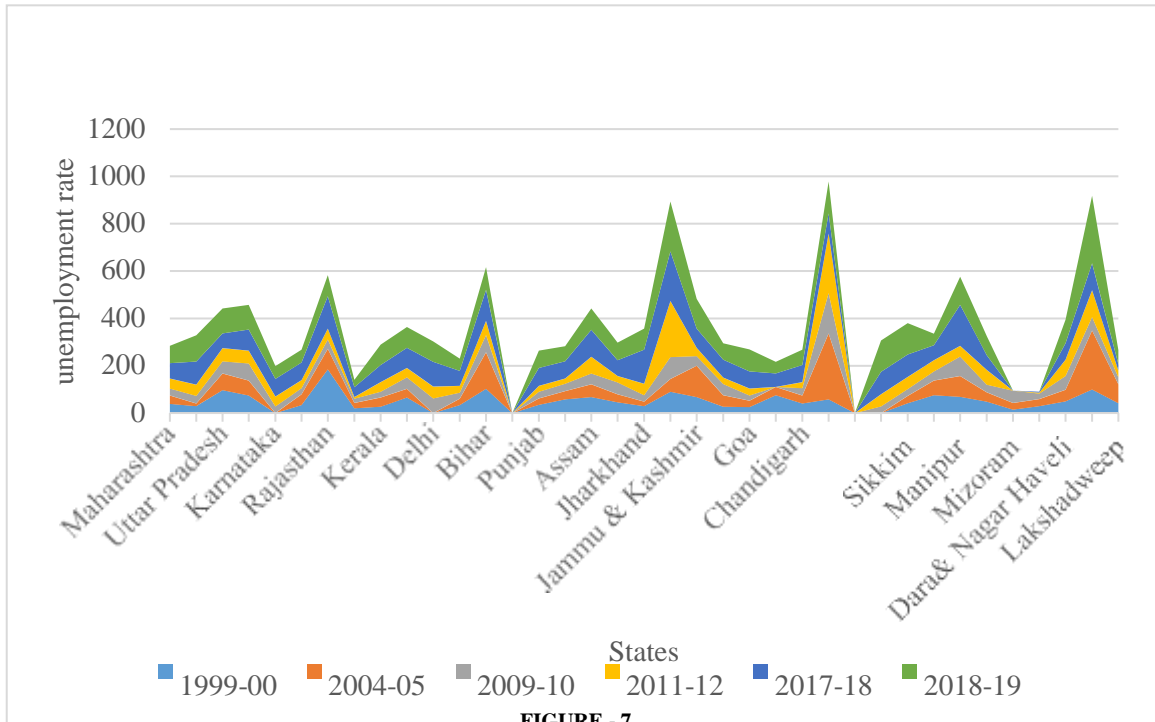
## GROWTH RATE OF UNEMPLOYMENT IN INDIA

(Per Thousand)

SL. NO	STATE	1999-00	2004-05	2009-10	2011-12	2017-18	2018-19
<b>DEVELOPED STATES IN INDIA</b>							
1	Maharashtra	39	35	30	42	65	72
2	Tamil Nadu	29	11	33	47	98	110
3	Uttar Pradesh	97	71	51	55	62	106
4	Gujarat	74	63	72	55	89	104
5	Karnataka	-	0	28	42	74	54
6	West Bengal	33	47	25	34	74	54
7	Rajasthan	185	86	40	45	137	90
8	Andhra Pradesh	20	23	17	7	42	31
9	Kerala	27	39	24	41	72	86
10	Madhya Pradesh	66	37	48	39	86	87
11	Delhi	-	0	62	50	104	86
12	Haryana	33	27	26	28	64	51
13	Bihar	102	155	72	60	131	96
<b>DEVELOPING STATES IN INDIA</b>							
14	Punjab	35	27	28	25	76	73
15	Odisha	58	35	31	22	73	63
16	Assam	67	54	47	70	113	91
17	Chhattisgarh	46	34	50	27	66	74
18	Jharkhand	30	18	27	49	143	90
19	Uttarakhand	91	54	91	237	210	210
20	Jammu and Kashmir	67	133	41	34	82	126
21	Himachal Pradesh	27	49	47	27	76	69
22	Goa	25	28	21	30	71	94
23	Tripura	75	36	0	0	57	48
24	Chandigarh	40	34	31	26	71	66
25	Pondicherry	58	279	170	251	86	134
<b>UNDER DEVELOPED STATES IN INDIA</b>							
26	Meghalaya	-	0	28	52	94	133
27	Sikkim	41	32	28	52	94	133
28	Nagaland	76	61	39	47	64	48
29	Manipur	69	87	83	45	173	119
30	Arunachal Pradesh	48	39	33	62	62	81
31	Mizoram	14	29	52	0	0	0
32	Andaman and Nicobar	30	29	23	4	4	0
33	Daraand Nagar Haveli	50	48	59	69	69	100
34	Damanand Diu	100	249	56	114	114	285
35	Lakshadweep	41	80	30	28	28	59

Sources: NSSO Employment percent Unemployment Survey Report NITI Aayog; and periodic labour Force Survey (PLFS), NSO (1999-00, 2004-05, 2009-10, 2011-12, 2017-18, 2018-19).

## GROWTH RATE ON UNEMPLOYMENT



The above table-5 and (figure -7) explains the growth rate of unemployment state of India as row wise unemployment rate for the year (1999-2000, 2004-2005, 2009-2010, 2011-2012 and 2017-2018). The state was separated by developed, developing, and underdeveloped by GDP rate. The growth rate has been calculated for by comparing 2 values for each state. This data has been calculated per 1000 people.

### MAXIMUM UNEMPLOYMENT RATE AND MINIMUM GROWTH RATE

The maximum un employment rate (Per Thousand) for the following

- 1999-2000 = 185
- 2004-2005 = 279
- 2009-2010 =170
- 2011-2012 = 251
- 2017-2018 = 210
- 2018-2019 = 285

The minimum unemployment rate (Per Thousand) for the following

- 1999-2000=14
- 2004-2005=11
- 2009-2010 =17

- 2011-2012 =4
- 2017-2018= 4
- 2018-2019 =31.

### **4.3 CORRELATION FOR SEX RATIO AND LITERARY RATE IN INDIA**

#### **SEX RATIO**

India overall sex ratio women per thousand men is how at a level seen in for 1000 men India has 1020 women if that a reason to celebrate there is a cause for concern too, since the sex ratio at the birth continues to be lower than what is naturally expected the fifth national family health survey (NFHS) where the data comes has also found that the sex ratio is better in rural areas compared to urban centers (John Skalski, 2005). The sex ratio of the population affects the birth rate, death rate, immigration and emigration rates. It is measured as the ratio of the number of individuals of one sex to that of other sex. The optimum sex ratio for a given individual in a given population depend on both the existing sex ratio of population.

#### **LITERACY RATE**

Literacy rate is defined by the percentage of the population of given age group they can read and write generally, literacy also compasses numeracy and measurement may incorporate a simple assessment of arithmetic ability. The adult literacy rate corresponding to age 15 to 24 and elderly to ages 65 and above it is typically measured according to the ability to comprehend a short simple statement on everyday life. (UNESCO Institute for Statistics, 2022) The global literacy rate for all people aged 15 and above is 86.3 percent. The global literacy rate for all males is 90 percent and rate for all female is 82.7 percentage. In India the literacy rate in the country is 74.04 percentage, 82 .14 for male and female in 2011 census (India book 2020) Relationship between the literacy rate and sex ratio are positively correlated (Jasim, 2017). The literacy rate and sex ratio are most significant components of the human development index. The area which is higher in literacy rate and sex ratio that region would be higher in the human development index. Literacy and sex ratio is considered as the impact aspect of population education is necessary for personal and national development, employment. There is a strong relationship between literacy and economic status.

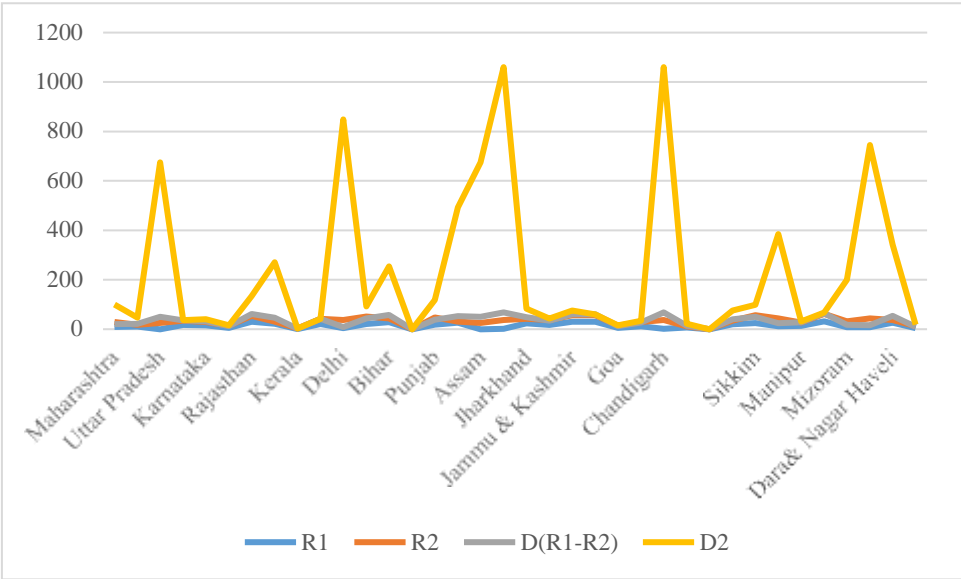
**TABLE- 6**

**CORRELATION FOR SEX RATIO AND LITERARY RATE FOR THE YEAR 1981**

SL. NO	STATE	R1	R2	D(R1-R2)	D <sup>2</sup>
<b>DEVELOPED STATES IN INDIA</b>					
1	Maharashtra	10	19	-9	81
2	Tamil Nadu	11	6	5	25
3	Uttar Pradesh		25	25	625
4	Gujarat	18	17	1	1
5	Karnataka	16	13	3	9
6	West Bengal	6	8	-2	4
7	Rajasthan	31	22.5	8.5	72.25
8	Andhra Pradesh	23	8	15	225
9	Kerala	1	2	-1	1
10	Madhya Pradesh	21	21	0	0
11	Delhi	4	33	-29	841
12	Haryana	22	29	-7	49
13	Bihar	29	15	14	196
<b>DEVELOPING STATES IN INDIA</b>					
14	Punjab	19	28	-9	81
15	Odisha	26	5	21	441
16	Assam		25	25	625
17	Chhattisgarh	2.5	34	31.5	992.25
18	Jharkhand	24	18	6	36
19	Uttarakhand	17	20	-3	9
20	Jammu and Kashmir	30	26	4	16
21	Himachal Pradesh	30	26	4	
22	Goa	6	8	-2	4
23	Tripura	13	16	-3	9
24	Chandigarh	2.5	34	31.5	992.25
25	Pondicherry	7	4	3	9
<b>UNDER DEVELOPED STATES IN INDIA</b>					
26	Meghalaya	20	14	6	36
27	Sikkim	25	32	-7	49
28	Nagaland	12	31	-19	361
29	Manipur	14	12	2	4
30	Arunachal Pradesh	32	30	2	4
31	Mizoram	9	22.5	-13.5	182.25
32	Andaman and Nicobar	8	35	-27	729
33	Daraand Nagar Haveli	27	10	17	289
34	Lakshadweep	5	8	-3	9

Source: Office of the Registrar General and Census Commissioner, Ministry of Home Affairs, Government of India, (1981).

**CORRELATION FOR SEX RATIO AND LITERARY RATE FOR THE YEAR (1981)**



**FIGURE -8**

The above table-6 and (figure-8) explains the relationship between the literacy rate and sex ratio. Correlation and Spearman’s rank difference method is used to calculate the literacy rate and sex ratio in all states in India. And the states has been separated by developed, under developed, and developing states According to the GDP rate of the country. For the year 1981 it is clearly explain a strong positive relationship between the sex ratio and literacy rate.  $r = 0.02657047$  between the literacy and sex ratio.

- The total literacy rate for all India level is 43.57
- The total sex ratio for all India level is 934
- The total literacy rate, and sex ratio for the states is 5590.

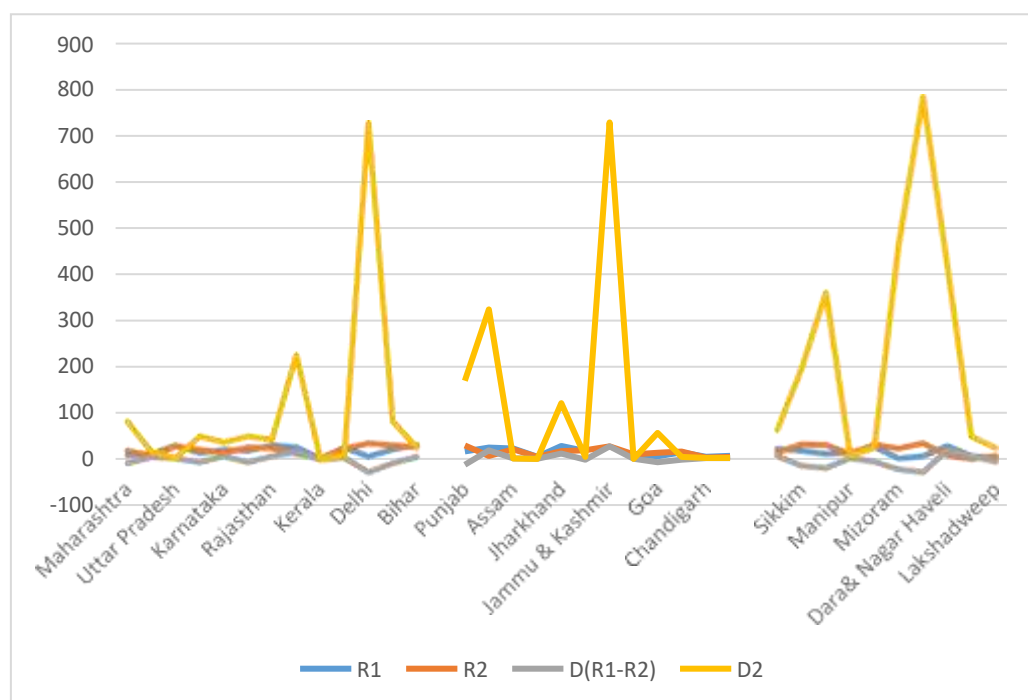
**TABLE -7**

**CORRELATION FOR SEX RATIO AND LITERARY RATE FOR THE YEAR (1991)**

SL.NO	STATE	R1	R2	D(R1-R2)	D <sup>2</sup>
<b>DEVELOPED STATES IN INDIA</b>					
1	Maharashtra	9	18	-9	81
2	Tamil Nadu	11	7	4	16
3	Uttar Pradesh	29.5	28	1.5	2.25
4	Gujarat	13	20	-7	49
5	Karnataka	20	14	6	36
6	West Bengal	18	25	-7	49
7	Rajasthan	30	23.5	6.5	42.25
8	Andhra Pradesh	26	11	15	225
9	Kerala	1	2	-1	1
10	Madhya Pradesh	25	22	3	9
11	Delhi	5.5	34	-28.5	726.75
12	Haryana	21	30	-9	81
13	Bihar	31	26	5	25
<b>DEVELOPING STATES IN INDIA</b>					
14	Punjab	16	29	-13	169
15	Odisha	24	6	18	324
16	Assam	22	21	1	1
17	Chhattisgarh	4.5	4.5	0	0
18	Jharkhand	28	17	11	121
19	Uttarakhand	17	19	-2	4
20	Jammu and Kashmir		27	27	729
21	Himachal Pradesh	10	10	0	0
22	Goa	5.5	13	-7.5	56.25
23	Tripura	14	16	-2	4
24	Chandigarh	4.5	3	1.5	2.25
25	Pondicherry	6	4.5	1.5	2.25
<b>UNDER DEVELOPED STATES IN INDIA</b>					
26	Meghalaya	23	15	8	64
27	Sikkim	19	33	-14	196
28	Nagaland	12	31	-19	361
29	Manipur	15	12	3	9
30	Arunachal Pradesh	27	32	-5	25
31	Mizoram	2	23.5	-21.5	462.25
32	Andaman and Nicobar	7	35	-28	784
33	Daraand Nagar Haveli	29.5	9	20.5	420.25
34	Damanand Diu	8	1	7	49
35	Lakshadweep	3	8	-5	25

Source: Office of the Registrar General and Census Commissioner, Ministry Of Home Affairs, Government of India, (1991).

## CORRELATION FOR SEX RATIO AND LITERARY RATE FOR THE YEAR (1991)



**FIGURE- 9**

The above and table-7 (figure-9) explains the relationship between the literacy rate and sex ratio. Correlation and Spearman's rank difference method is used to calculate the literacy rate and sex ratio in all states in India. And the states has been separated by developed, under developed, and developing states According to the GDP rate of the country. For the year 1991 it is clearly explaining a strong positive relationship between the sex ratio and literacy rate.  $r = 0.22448699$  between the literacy and sex ratio.

- The total literacy rate for India level is 52.21
- The total sex ratio for India level is 927
- The total literacy rate, and sex ratio for the states is 5151.5

**TABLE - 8**  
**CORRELATION OF SEX RATIO AND LITERARY RATE FOR THE YEAR 2001**

SL.NO	STATE	R1	R2	D(R1-R2)	D <sup>2</sup>
<b>DEVELOPED STATES IN INDIA</b>					
1	Maharashtra	11	18.5	-7.5	56.25
2	Tamil Nadu	13	4	9	81
3	Uttar Pradesh	31	24	7	49
4	Gujarat	18	21	-3	9
5	Karnataka	22	11	11	121
6	West Bengal	20	17	3	9
7	Rajasthan	29	20	9	81
8	Andhra Pradesh	28	5.5	22.5	506.25
9	Kerala	1	1	0	0
10	Madhya Pradesh	24	14.5	9.5	90.25
11	Delhi	4.5	31	-26.5	702.25
12	Haryana	21	29	-8	64
13	Bihar	35	22	13	169
<b>DEVELOPING STATES IN INDIA</b>					
14	Punjab	876	17	27	10
15	Odisha	972	26	8	18
16	Assam	935	25	16.5	8.5
17	Chhattisgarh	989	6.5	2.5	4
18	Jharkhand	941	34	17	17
19	Uttarakhand	962	15	12	3
20	Jammu and Kashmir	-	32	26	6
21	Himachal Pradesh	968	12	10	2
22	Goa	961	4.5	13	-8.5
23	Tripura	948	14	14.5	-0.5
24	Chandigarh	777	6.5	32	-25.5
25	Pondicherry	972	9	8	1
<b>UNDER DEVELOPED STATES IN INDIA</b>					
26	Meghalaya	972	27	8	19
27	Sikkim	875	19	28	-9
28	Nagaland	900	23	23	0
29	Manipur	978	16	5.5	10.5
30	Arunachal Pradesh	893	33	25	8
31	Mizoram	935	2	16.5	-14.5
32	Andaman and Nicobar	846	8	30	-22
33	Daraand Nagar Haveli	812	30	31	-1
34	Damanand Diu	989	10	2.5	7.5
35	Lakshadweep	922	3	18.5	-15.5

Source: Office of the Registrar General and Census Commissioner, Ministry Of Home Affairs, Government of India, (2001).

## CORRELATION ON SEX RATIO AND LITERARY RATE FOR THE YEAR (2001)

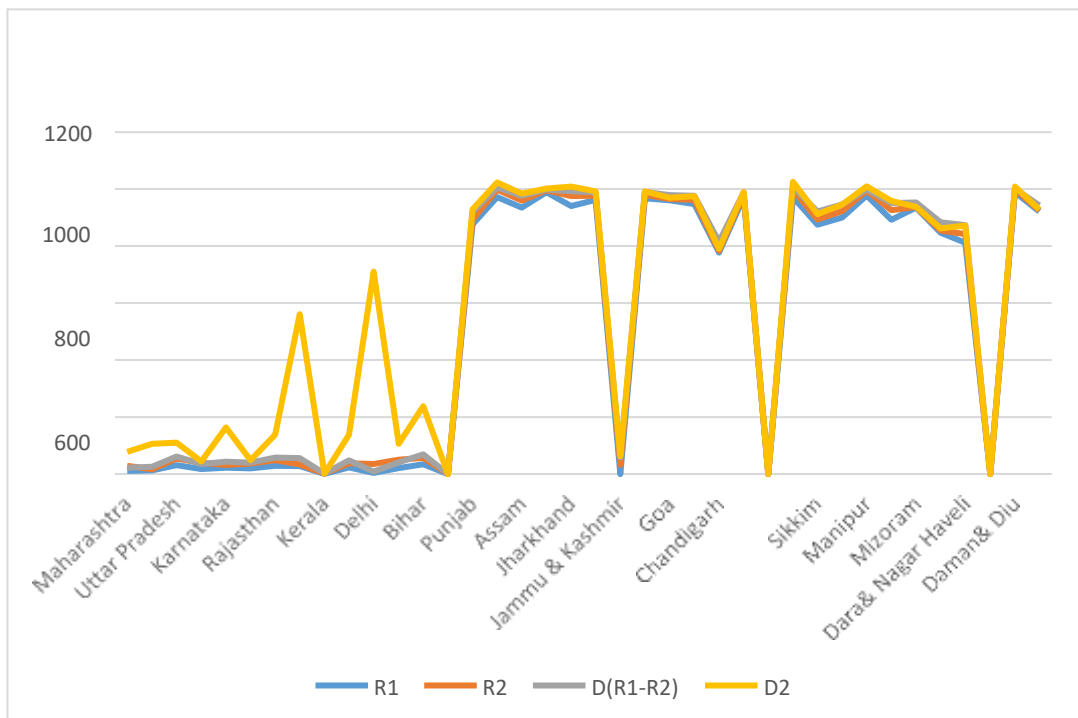


FIGURE- 10

The above table-8 (figure-10) explains the relationship between the literacy rate and sex ratio. Correlation and Spearman's rank difference method is used to calculate the literacy rate and sex ratio in all states in India. And the states has been separated by developed, under developed, and developing states according to the GDP rate of the country. For the year 2001 it is clearly explaining a strong positive relationship between the sex ratio and literacy rate  $r = 0.131387$  between the literacy and sex ratio.

- The total literacy rate for India level is 64.84
- The total sex ratio for India level is 933
- The total literacy rate, and sex ratio for the states is 5120.

**TABLE -9****CORRELATION ON SEX RATIO AND LITERARY RATE FOR THE YEAR (2011)**

<b>SL.N O</b>	<b>STATE</b>	<b>R1</b>	<b>R2</b>	<b>D(R1-R2)</b>	<b>D<sup>2</sup></b>
<b>DEVELOPED STATES IN INDIA</b>					
1	Maharashtra	13	22.5	-9.5	90.25
2	Tamil Nadu	15	2	13	169
3	Uttar Pradesh	28	27	1	1
4	Gujarat	18	25	-7	9
5	Karnataka	23	11.5	11.5	132.25
6	West Bengal	19	17	2	4
7	Rajasthan	32	24	8	64
8	Andhra Pradesh	30	3	27	729
9	Kerala	1	1	0	0
10	Madhya Pradesh	27	19	8	64
11	Delhi	4.5	33	-28.5	812.25
12	Haryana	22	31	-9	81
13	Bihar	34	26	8	64
<b>DEVELOPING STATES IN INDIA</b>					
14	Punjab	21	28	-7	49
15	Odisha	25	8.5	16.5	272.25
16	Assam	26	16	10	100
17	Chhattisgarh	9.5	5.5	4	16
18	Jharkhand	31	18	13	169
19	Uttarakhand	17	14	3	9
20	Jammu and Kashmir	29	30	-1	1
21	Himachal Pradesh	12	13	-1	1
22	Goa	4.5	11.5	-7	49
23	Tripura	6	15	-9	81
24	Chandigarh	9.5	34	-24.5	600.25
25	Pondicherry	11	8.5	2.5	6.25
26	Meghalaya	24	7	17	289
<b>UNDER DEVELOPED STATES IN INDIA</b>					
27	Sikkim	14	29	-15	225
28	Nagaland	16	21	-5	25
29	Manipur	19	4	15	225
30	Arunachal Pradesh	33	20	13	169
31	Mizoram	3	10	-7	49
32	Andaman and Nicobar	8	32	-24	576
33	Daraand Nagar Haveli	20	35	-15	-225
34	Damanand Diu	7	5.5	1.5	2.25
35	Lakshadweep	2	22.5	-20.5	420.25

Source: Office of the Registrar General and Census Commissioner, Ministry of Home Affairs, Government of India, (2011).

## CORRELATION ON SEX RATIO AND LITERARY RATE FOR THE YEAR (2011)

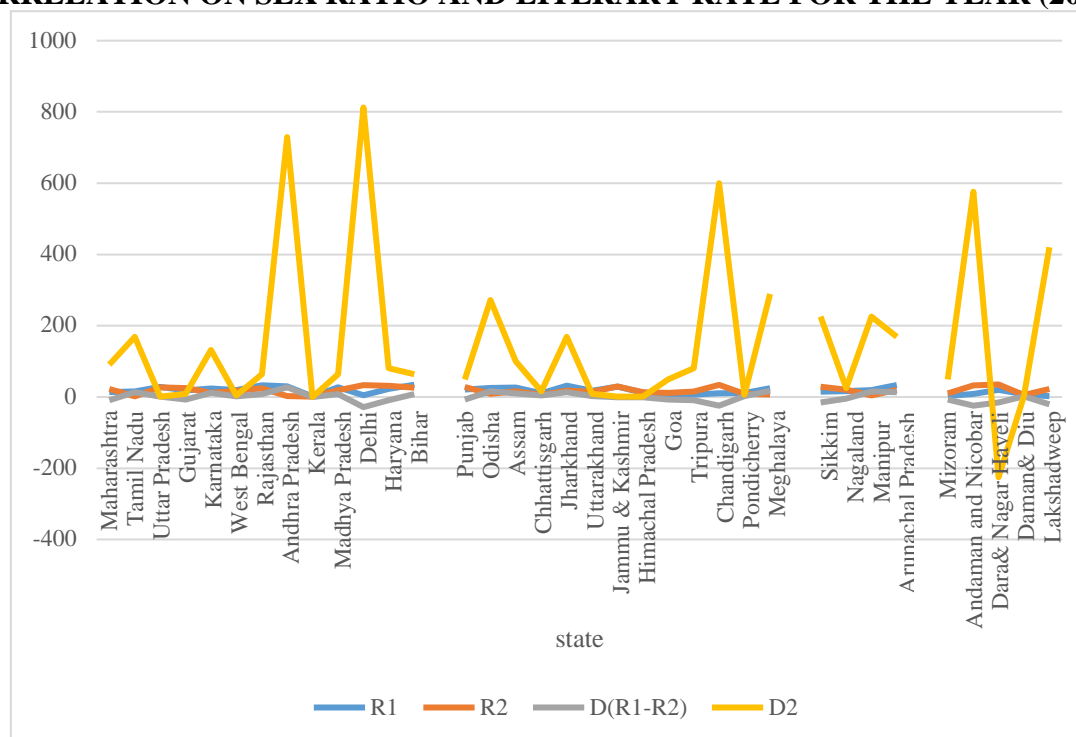


FIGURE - 11

The above table-9 (figure-11) explains the relationship between the literacy rate and sex ratio. Correlation and Spearman's rank difference method is used to calculate the literacy rate and sex ratio in all states in India. And the states has been separated by developed, under developed, and developing states according to the GDP rate of the country. For the year 2011 it is clearly explain a strong positive relationship between the sex ratio and literacy rate.  $r = 0.154254$  between the literacy and sex ratio.

- The total literacy rate for all India level is 72.99
- The total sex ratio for all India level is 943
- The total literacy rate, and sex ratio for the states is 5329.

According to the sex ratio and literacy rate for the year (1981, 1991, 2001, 2011) the r value for the year are given below

- 1981 R value = 0.02657047
- 1991 R value = 0.22448699
- 2001 R value = 0.131387
- 2011 R value = 0.1542

#### **4.5 REGRESSION FOR GDP RATE AND UNEMPLOYMENT RATE IN INDIA**

Gross Domestic Product (GDP) is the standard measure of the value added product created through the productive of goods and services in a country during a certain period of time. As such it measures the income earned from measures, the income earned from that production, or the total amount spend on the final goods and services. While GDP is the single most important indicator to capture economic activity, it falls short of proving a suitable measure of people material wellbeing for which alternative indicators may be more appropriate. The GDP calculated accounts for spending on both import and exports. Thus the country GDP is the total of consumer spending (C) plus business investment (I) and government spending (G) plus net exports which is total exports minus total imports. There are two main ways to measure GDP by measuring spending or by measuring income.

Unemployment rate is one of the most important macroeconomic indicators. The change of the unemployment rate is highly correlated with the economic cycle (Poonkulali Tangavelu, 2021). The economic growth has positive impact on employment issues, while negative growth will result in increasing unemployment.

GDP and unemployment rates usually go together because a decrease in the GDP is reflected in a decrease in the rate of employment. A rise in employment levels is a natural result of increased GDP levels caused by an increase in consumer demands for good and services. Unemployment rates can be seen by the application of Okun's Law. According to the Okun's by the law there is a corresponding two percent increase in the employment for every established in the percent increase in GDP level are driven by the principles of demand and supply and as such an increase in demand leads to an increase in GDP (Esther Ejim 2022). Such an increase in a demand must be accompanied by a corresponding increase in productivity and employment to keep up with the demand.

**TABLE - 10**

**THE SIMPLE LINER REGRESSION FOR GDP AND THE UNEMPLOYMENT RATE FOR THE YEAR (1991-2021)**

<b>R</b>	<b>R Square</b>	<b>Adjusted R square</b>	<b>Std. Error of the Estimate</b>
.498	.248	.223	2.84314

**ANOVA**

<b>Model</b>	<b>Sum of square</b>	<b>DF</b>	<b>Mean square</b>	<b>F</b>	<b>Sig</b>
Regression	77.482	1	77.482	9.585	.004 <sup>b</sup>
Residual	234.420	29	8.083		
Total	311.902	30			

**COEFFICIENT**

<b>Variables</b>	<b>Standardized coefficients</b>	<b>T</b>	<b>Sig</b>
Unemployment	-.498	3.773	.001
GDP		-3.096	.004

## REGRESSION FOR GDP RATE AND UNEMPLOYMENT RATE IN INDIA

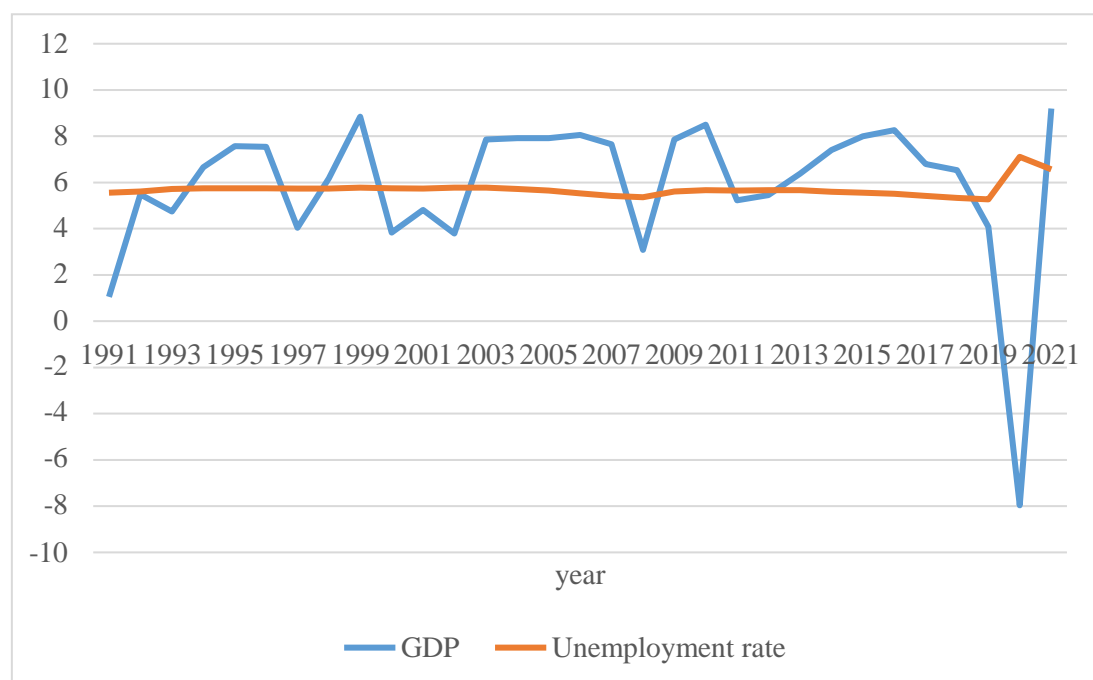


FIGURE -12

The above table-10 (figure-12) explain the unemployment rate and GDP rate, the GDP rate is indicated in the blue line and unemployment rate is indicated in the orange line. The GDP line goes up and down in the graph in the year 2020, 2021 and it became negative value. And the unemployment rate goes straight until the year 2018, after 2019 there is change and its goes up so there is more unemployment rate in the year 2020 and 2021.

### UNEMPLOYMENT RATE FOR THE YEAR 1991-2020

India's unemployment rate rose highest level since 1991 during 2020 corona virus pandemic caused economy to come down. The nation saw one of the lockdown in the world starting March last year as the pandemic claimed numerous lives with stringent restrictions on mobility and economic activity across the board. Prior recessions typically developed with gradually increasing economic distress. The most recession caused by the COVID-19 pandemic exogenous shock to the economy. The pandemic resulted in rapidly implemented efforts to limit contact among individuals and many shutdowns orders. Therefore the trend in the unemployment rate in the most recent recession differ from those prior recession. The most recent recession exhibited an unprecedented sharp increase in unemployment rate 7.11 percent for the year 2020.

## UNEMPLOYMENT RATE FROM (1991-2021)

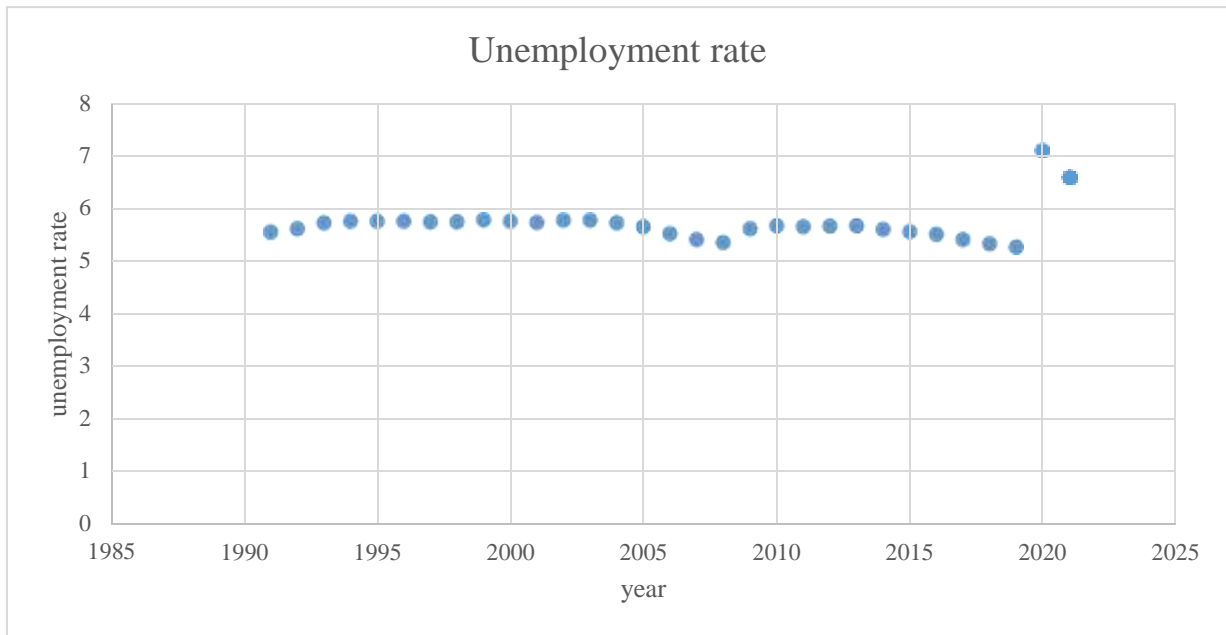


FIGURE -13

The (figure-13) explain the unemployment rate for the year 1991-2021, The unemployment rate is normal in 1991-2019, but in the year 2020-2021 the unemployment rate has been increased suddenly due to COVID -19, the government announced the lockdown, so many employee became unemployed. They lost the job, and didn't get the salary, they suffered a lot, and the government must take steps to overcome from the unemployment. When there is more unemployment the Per-capita income became very low and the GDP of the country became decreased. When the GDP decreased the development of the country became negative. The unemployment is the major problem in the economy.

### 4.5 REGRESSION OF PER CAPITA INCOME AND GDP IN INDIA

The term per capita is derived from a Latin phrase which means “by head”. The term is usually used to determine the average per person in a given measurement. The term is most commonly used in economics, statistics and business as a way of reporting average per person. By knowing the per capita, you get an idea about how the country, state or city affects the people living there. Per capita income is a measure of the amount of money earned per person in a nation or geographic region. Per capita income can be used to determine the average per-person income for an area and to evaluate the standard of living and quality of life of the population. Per capita income for a nation is calculated by dividing the country's national income by its population. It counts each man, woman, and child, even newborn babies, as a member of the population. This stands in contrast to other common measurements of an area's

prosperity, such as household income, which counts all people residing under one roof as a household, and family income, which counts as a family those related by birth, marriage, or adoption who live under the same roof. Per capita ratio is often used to compare economic indicators of countries with different population sizes. And it determines its interpretation and the unit that it measures the two common economic indicators are

- Per Capita Income
- Gross Domestic Product

### **CALCULATION OF PER CAPITA INCOME**

Per capita income of different countries is calculated in dollars and not in their own currencies because the dollar has been the strongest currency since the end of the 2<sup>nd</sup> World War and it becomes easy to compare the per capita incomes of various countries when these are converted into a common currency.

### **INDIA PER -CAPITAL INCOME**

India's per capita net national income or NNI was around 135 thousand rupees in 2020. The per-capita income is a crude indicator of the prosperity of a country. The gross national income at constant prices stood at over 128 trillion rupees.

### **RELATIONSHIP BETWEEN PER CAPITAL INCOME AND UNEMPLOYMENT**

The relationship between economic growth and unemployment has been studied experimentally in the economic literature based on what is known as Okun law, which show that there is an inversely proportional relationship between the change in the growth rate (GDP) and change in the unemployment. The unemployment and per capital income are two primary factors to be consider. Economist Arthur Okun first started tackling the discussion in the 1960<sup>s</sup>, and his research on the subject has since become known as Okun's law. Okun's law says that a country's gross domestic product (GDP) must grow at about a 4percentage rate for one year to achieve a 1 percent reduction in the rate of unemployment.

### **OKUN'S LAW:**

Arthur Okun was a Yale professor and an economist who studied the relationship between unemployment and production. Okun was born in November 1928. He studied economics at Columbia University, where he received his Ph.D. During his tenure at Yale, He was appointed to President John Kennedy's Council of Economic Advisors. He remained in this position under President Lyndon B. Johnson as well. As a Keynesian economist, Okun

advocated for using fiscal policy to control inflation and stimulate employment. He first proposed the relationship between unemployment and a country's GDP in the 1960s. In general, Okun's findings demonstrated that when unemployment falls, the production of a country will increase.

Okun's Law is an empirically observed relationship between unemployment and losses in a country's production two factors: output and jobs. Because there is a relationship between these two elements of an economy, many economists study the relationship between output (more specifically, gross domestic product, GDP) and unemployment levels. It looks at the statistical relationship between GDP and unemployment. It can also be used to estimate Gross National Product (GNP).

It intended to tell that how much of a country's gross domestic product (GDP) may be lost when the unemployment rate is above its natural rate." The logic is fairly straightforward. The amount of output that an economy produces depends on the amount of labor (or the number of people employed) in the production process when there is more labor involved in the production process, there is more output and (vice versa). In Okun's original statement of his law, an economy experiences a 1 percentage point increase in unemployment for every 3 percentage point decrease GDP from its long-run level also called potential GDP. Similarly, a 3 percent point increase in GDP from its long-run level is associated with a 1 percentage point decrease in unemployment. Potential GDP is the level of output that can be achieved when all resources (land, labuor, capital, and entrepreneurial ability) are fully employed Okun's Law is an approximation because there are other factors, aside from employment, that impact output, such as capacity utilization and hours worked. This also explains why there isn't a one-to-one relationship between changes in output and changes in unemployment.

Okun noted that because of ongoing increases in the size of the labor force and in the level of productivity, GDP growth close to the rate of growth of its potential is normally required, just to hold the unemployment rate steady. To reduce the unemployment rate, the economy must grow at a pace above its potential more specifically, According to currently accepted versions of Okun's law, to achieve a one percentage point decline in the unemployment rate in the course of a year, GDP must grow approximately two percentage points faster than the rate of growth of potential GDP over that period. So, for illustration, if the potential rate of GDP growth is 2 percentage, Okun's law says that GDP must grow at

about a 4 percentage rate for one year to achieve a one percentage point reduction in the rate of unemployment.

It is most important to note that Okun's law is a statistical relationship that relies on regression of unemployment and economic growth. As such, running the regression can result in differing coefficients that are used to solve for the change in unemployment, based on how the economy grew. It all depends on the time periods used and inputs, which are historical GDP and employment data. One version of Okun's law has stated very simply that when unemployment falls by 1 percent gross national product (GNP) rises by 3 percentage. Another version of Okun's law focuses on a relationship between unemployment and GDP, whereby a percentage increase in unemployment causes a 2 percent fall in GDP. For example, Okun also estimated that a 3 percentage point increase in GDP from its long-run level corresponded to a 0.5 percentage point increase in the labour force participation rate, a 0.5 percentage point increase in hours worked per employee, and a 1 percentage point increase in labour productivity (output per worker per hour). This would leave the remaining 1 percentage point to be the change in the unemployment rate. The relationship between unemployment and GDP (or GNP) varies for all countries. .

#### **FORMULA:**

The gap or level version of Okun's law is used to determine the relationship between output and unemployment it can be captured by the following equation:

$$Y_t - Y_t^* = a + \beta(U_t - U_t^*) + \varepsilon_t \quad (1)$$

Change in unemployment is calculated by using the formula

$$\Delta U_t = U_t - U_{t-1}$$

$U_t$  = previous year unemployment rate

$U_{t-1}$  = Previses year unemployment rate-1

Change in GDP is calculated by using the formula

$$\text{GDP growth rate} = (\text{GDP}_t - \text{GDP}_{t-1})$$

$\text{GDP}_t$  = Previses year GDP rate

$\text{GDP}_{t-1}$  = Previses year GDP rate -1

$u_t$  is the unemployment rate,  $y_t$  is the logarithm of GDP, and the variables marked with \* are their long-term levels, that is, the natural rate of unemployment and potential GDP, respectively. The parameter  $\beta$  is often called “Okun’s coefficient.” The main assumption behind equation 1 is that shifts in aggregate demand cause fluctuations in output, which in turn causes firms to hire or fire workers, i.e. unemployment to change. The error term captures other factors that may shift the unemployment-output relationship, such as unusual changes in labor productivity or in labor force participation.

The difference version of Okun's law focuses on the relationship between the change in the unemployment rate and the change in GDP it is calculated as:

$$u_t - u_{t-1} = \alpha + (y_t - y_{t-1}) + \omega_t \quad \text{or} \quad \Delta u_t = \alpha + \beta \Delta y_t + \omega_t \quad (2)$$

Where  $u_{t-1}$  and  $y_{t-1}$  are the rate of unemployment and the GDP from the previous period, respectively. Equation 2 is derived from equation 1 and assumes that the natural rate of unemployment is unchanged and potential GDP grows at a constant rate. Under these assumptions, equation 1 yields equation 2 with  $\alpha = -\beta \Delta y^*$ , where  $\Delta y^*$  is the constant growth rate of potential output, and  $\omega_t = \Delta \varepsilon_t$ . However, assuming a constant growth rate of potential GDP or a fixed natural rate of unemployment may be very unrealistic for developing and emerging economies. The equation 2 as a separate and simpler way of modeling the data that avoids some of the problems inherent for the equation 1, particularly regarding the estimation of trend or potential values. The dynamic version of Okun’s law is partly based on one of Okun’s observations that both past and current output can impact the current level of unemployment, the contemporaneous and lagged values of GDP growth and the lagged value of the change in the unemployment rate adding lagged values of the dependent variable allows the serial correlation in the error terms to be eliminated. The dynamic version of Okun’s law defined in this way bears some resemblance to the original difference version of this law. However, it is still fundamentally distinct since it no longer only captures the contemporaneous correlation between changes in the unemployment rate and real output growth. The relationship does not have the same simple interpretation as the original difference version of Okun’s law.

**TABLE - 11****THE CHANGE IN THE UNEMPLOYMENT RATE AND GDP RATE**

<b>SL.NO</b>	<b>YEAR</b>	<b>CHANGE IN UNEMPLOYMENT(Q1)</b>	<b>CHANGE IN GDP(Q2)</b>
1	1991	5.702438	5.078712444
2	1992	5.807304	6.188113774
3	1993	5.904723	6.433070436
4	1994	5.981935	6.865302041
5	1995	6.053973	6.911295416
6	1996	6.126349	6.751111801
7	1997	6.198358	6.571948301
8	1998	6.27129	7.151637294
9	1999	6.341911	7.310203037
10	2000	6.39973	6.877675379
11	2001	6.457572	7.508283797
12	2002	6.511557	7.973884152
13	2003	6.545966	8.694710907
14	2004	6.565601	8.55232021
15	2005	6.577905	8.341514907
16	2006	6.584214	8.06641838
17	2007	6.59466	7.687577064
18	2008	6.602191	7.314229892
19	2009	6.589635	7.878152097
20	2010	6.484119	7.385267324
21	2011	6.314854	6.640201733
22	2012	6.090228	6.489244489
23	2013	5.795445	6.217229247
24	2014	5.421465	5.649024396
25	2015	4.977033	4.732165014
26	2016	4.448233	3.529377201
27	2017	3.829773	2.092714031
28	2018	3.126181	0.794911956
29	2019	2.32846	-0.599628654
30	2020	1.428542	-1.59932454

Source: World Bank data Ministry of Statistical and Planning Implementation (MSPD), (1991-2020).

## THE CHANGE IN UNEMPLOYMENT RATE AND GDP RATE

The data set used in her consists of yearly unemployment rate, the GDP and its expenditure components between 1991 (Q1) and 2020 (Q2), as yearly data for unemployment form the period 1991 to 2020 available. The gaps by using the Hedrick-Prescott (HP) filter, with  $\lambda=1600$ , in line with the standard practice for quarterly data. In order to avoid the end-point bias of the HP filter, the gaps of both series are calculated covering the period 2020 Q1, Q2.

UNEMPLOYMENT AND GDP RATE FOR THE YEAR (1991-2020)



FIGURE - 14

**TABLE -12****THE SIMPLE LINER REGRESSION FOR GDP AND THE UNEMPLOYMENT RATE FOR THE YEAR (1991-2021)**

<b>MODEL 1</b>			
<b>R</b>	<b>R SQUARE</b>	<b>ADJUSTED R SQUARE</b>	<b>STD. ERROR OF THE ESTIMATE</b>
.987	.974	.973	.43161

<b>ANOVA</b>					
<b>MODEL</b>	<b>SUM OF SQUARE</b>	<b>DF</b>	<b>MEAN SQUARE</b>	<b>F</b>	<b>SIG</b>
Regression	193.906	1	193.906	.43161	.000
Residual	5.216	28	.186		
Total	199.122	29			

<b>COEFFICIENT</b>			
<b>VARIABLES</b>	<b>STANDARDISED COEFFICIENTS</b>	<b>T</b>	<b>SIG</b>
Unemployment	-4.998	.349	.000
GDP	1.937	.060	.000

The above table-12 and (figure-13) explains Okun's coefficient has changed significantly after the most recent global financial crisis and particularly after the subsequent in order to analyses statistically the degree of variation in the Okun's relationship, This is proceeded with the regression technique, where Okun's coefficients are estimated the aggregate specification of Okun's relationship in a gap for unemployment and GDP. This process produces a sequence of estimated Okun's coefficients. If the relationship is stable over

time, then the estimated coefficients should be relatively similar between each other. On the other hand, variations in the relationship will appear as sizable movements in the estimated set of coefficients. If the relationship is stable over time, then the estimated coefficients should be relatively similar between each variable. On the other hand, variations in the relationship will appear as sizable movements in the estimated set of coefficients. In this particular case, all possible 30 year sub-samples starting at the beginning of our full data sample sequentially for the year. The result shows that Okun's law in gap form yields greater stability. The high significant between the variable unemployment and GDP when the unemployment is increasing the GDP is decreasing there is a relationship between the variables. When there is a little change in the unemployment rate there is impact of the GDP.

### ANALYSIS OF OKUNS LAW

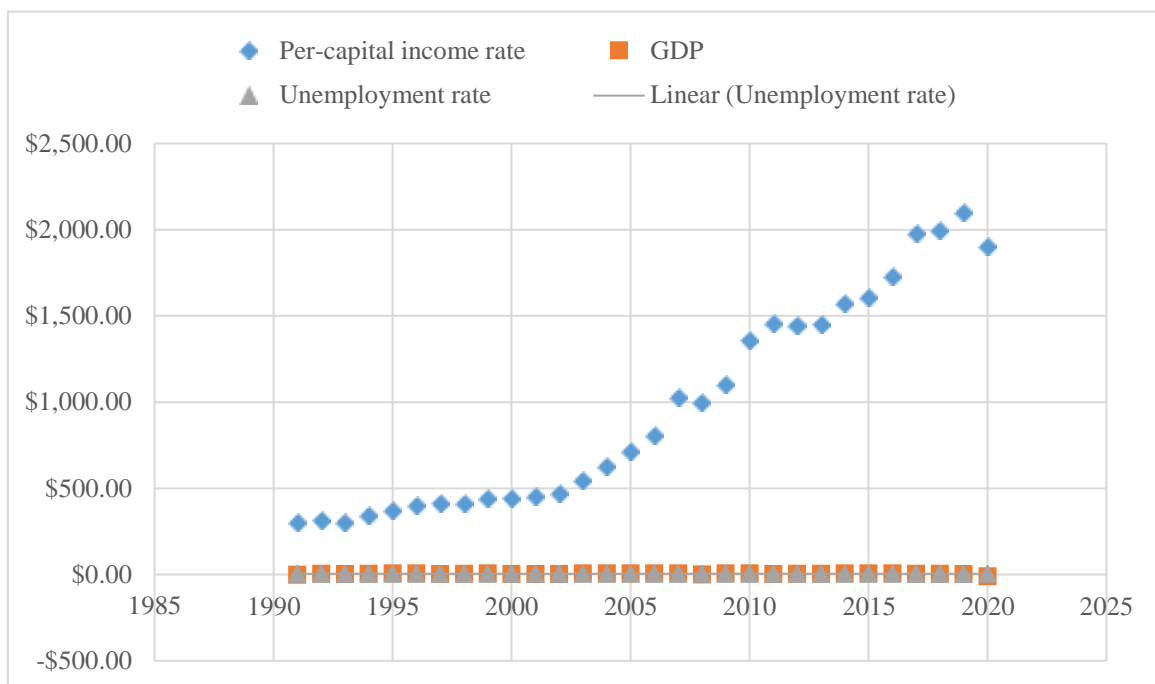


FIGURE -15

The above (Figure-15) explain the relationship between the GDP, Unemployment rate, and Per-capital income. The GDP is represented in orange colour, and unemployment in grey colour, per capital income is in blue colour. Per capital income is measured in the dollar and GDP and unemployment rate is measured in the percent. In 1991 the GDP, Unemployment, per capital income are has small distances until the year 2000 after 2000 the per capital income has ups and downs the unemployment rate also increased. Okun's law focuses on a relationship between unemployment and GDP, whereby a percentage increase in unemployment causes a 2 percent fall in GDP increase in unemployment percentage there decrease in the GDP rate.

In 2020 the unemployment rate has increased, GDP and per capital income both decreased due to COVID 19. COVID 19 created many problems like unemployment, poverty. people are affected by corona virus and they lost their life and lots of jobs, and their families. It made the economy down and it changed many people life.

#### **4.6 REGRESSION OF INFLATION AND UNEMPLOYMENT IN INDIA**

Inflation is the decline of purchasing power of a given currency over time. The term inflation refers to increase in overall price level of goods and services in the economy which leads to decrease in the purchasing power of household. Because the prices increases, the value of money will depreciate and ultimately the real income of household will decrease. A quantitative estimate of the rate at which the decline in purchasing power occurs can be reflected in the increase of an average price level of a basket of selected goods and services in an economy over some period of time. The rise in the general level of prices, often expressed as a percentage, means that a unit of currency effectively buys less than it did in prior periods.

Inflation is classified into three types:

- Demand-Pull inflation,
- Cost-Push inflation,
- Built-In inflation.

The most commonly used inflation indexes are the Consumer Price Index (CPI) and the Wholesale Price Index (WPI). Inflation can be viewed positively or negatively depending on the individual viewpoint and rate of change. Those with tangible assets, like property or stocked commodities, may like to see some inflation as that raises the value of their assets. While it is easy to measure the price changes of individual products over time, human needs extend beyond one or two such products. Individuals need a big and diversified set of products as well as a host of services for living a comfortable life. They include commodities like food grains, metal, fuel, utilities like electricity and transportation, and services like healthcare, entertainment, and labour. Inflation aims to measure the overall impact of price changes for a diversified set of products and services, and allows for a single value representation of the increase in the price level of goods and services in an economy over a period of time. As a currency loses value, prices rise and it buys fewer goods and services. This loss of purchasing power impacts the general cost of living for the common public which ultimately leads to a deceleration in economic growth. The consensus view among economists is that sustained

inflation occurs when a nation's money supply growth outpaces economic growth. To combat this, a country's appropriate monetary authority, like the central bank, then takes the necessary measures to manage the supply of money and credit to keep inflation within permissible limits and keep the economy running smoothly.

## **CAUSES OF INFLATION**

An increase in the supply of money is the root of inflation, though this can play out through different mechanisms in the economy. Money supply can be increased by the monetary authorities either by printing and giving away more money to the individuals, by legally devaluing (reducing the value of) the legal tender currency, more (most commonly) by loaning new money into existence as reserve account credits through the banking system by purchasing government bonds from banks on the secondary market. In all such cases of money supply increase, the money loses its purchasing power.

### **DEMAND-PULL EFFECT**

These developments lead to higher costs for the finished product or service and work their way into rising consumer prices. For instance, when the expansion of the money supply creates a speculative boom in oil prices the cost of energy of all sorts of uses can rise and contribute to rising consumer prices, which is reflected in various measures of inflation.

### **BUILT-IN INFLATION EFFECT**

Built-in inflation is related to adaptive expectations, the idea that people expect current inflation rates to continue in the future. As the price of goods and services rises, workers and others come to expect that they will continue to rise in the future at a similar rate and demand more costs or wages to maintain their standard of living. Their increased wages result in a higher cost of goods and services, and this wage-price spiral continues as one factor induces the other and vice-versa. Demand-pull inflation occurs when an increase in the supply of money and credit stimulates overall demand for goods and services in an economy to increase more rapidly than the economy's production capacity. This increases demand and leads to price rises with more money available to individuals, positive consumer sentiment leads to higher spending, and this increased demand pulls prices higher. It creates a demand-supply gap with higher demand and less flexible supply, which results in higher prices.

## **COST-PUSH INFLATION EFFECT**

Cost-push inflation is a result of the increase in prices working through the production process inputs. When additions to the supply of money and credit are channeled into a commodity or other asset markets and especially when this is accompanied by a negative economic shock (Michael Boyle, 2022). The supply of key commodities, costs for all kinds of intermediate goods rise.

## **RELATIONSHIP BETWEEN INFLATION AND UNEMPLOYMENT**

Inflation and unemployment economic problems both impact the common man life. The Phillips phase of the inflation-unemployment cycle. The standard relationship illustrated by the Phillips curve named after A.W. Phillips, in 20th-century economist analyses the relationship between inflation and unemployment. High Productivity price stability and low unemployment are the most desirable macroeconomic goals. In this regard in 1960, the concept of Phillips curve emerged, by A.W. Phillips who is the pioneer of the Phillips curve in UK. This curve suggests negative relationship between the rate of inflation and unemployment.

There are two studies which provided explanations of the possible Phillips curve, relationship between the two variables in the short-run and the long run as first one is, in short run, there is trade-off between inflation and unemployment. Second, in the long run there is no significant trade-off between inflation and unemployment. Therefore economists are in best interest to identify their relationship there is a short run trade-off between the rate of inflation and unemployment, the relationship between unemployment and inflation is not static, it cycles through different phases. Economists refer to this process as the inflation-unemployment cycle. In a nutshell, the Phillips curve demonstrates that there is an inverse relationship between unemployment and inflation.

In other words, in the short-term, as the rate of unemployment goes down, the rate of inflation will go up. This policymakers a tool to deal with unemployment, but there is a trade-off. Governments can decrease unemployment through monetary policy (i.e., changing the supply of money) and fiscal policy (taxing and spending) if it's willing to accept an increase in inflation. The relationship between inflation and unemployment has traditionally been an inverse correlation. The relationship is more complicated than it appears at first glance, and it has broken down on a number of occasions over the past 50 years. Since inflation and employment (and unemployment) are some of the most closely monitored economic indicators how they affect the overall economy.

Problem of inflation in Indian economy is that, Inflation erodes the value of money that constrains people and firm to minimize their holding of cash. When price rises, sellers must use resources to change nominal prices. Then society's output of goods and services is reduced by devoting resources to these activities.

Problem of unemployment in India is that, Loss of output is the major problem of unemployment because the unemployed labor force does not add to the productivity. And they do not pay taxes, even tax payers of the society also bear some of the output cost of the unemployed.

#### **4.6.2 THE PHILLIPS CURVE**

A.W. Phillips was one of the first economists to present compelling evidence of the inverse relationship between unemployment and wage inflation. Phillips studied the relationship between unemployment and the rate of change of wages in the United Kingdom over a period of almost a full century (from 1861 to 1957), and he discovered that the latter could be explained by two things

- The level of unemployment
- The rate of change of unemployment.

Phillips hypothesized that when demand for labour is high and there are few unemployed workers, employers can be expected to bid wages up quite rapidly. When demand for labor is low, and unemployment is high, workers are reluctant to accept lower wages than the prevailing rate, and as a result, wage rates fall very slowly. A second factor that affects wage rate changes is the rate of change in unemployment. If the economy is booming, employers will bid more vigorously for workers which means that demand for labour is increasing at a fast pace than they would if the demand for labour were either not increasing or only increasing at a slow pace. Since wages and salaries are a major input cost for companies, rising wages should lead to higher prices for products and services in an economy, ultimately pushing the overall inflation rate higher. As a result, Phillips graphed the relationship between general price inflation and unemployment, rather than wage inflation. The Phillips curve states that inflation and unemployment have an inverse relationship. Higher inflation is associated with lower unemployment and vice versa.

The Phillips curve was a concept used to guide macroeconomic policy in the 20<sup>th</sup> century, but was called stagflation of the 1970's. Understanding the Phillips curve in light of consumer

and worker expectations, shows that the relationship between inflation and unemployment may not hold in the long run, or even potentially in the short run.

## **UNDERSTANDING THE PHILLIPS CURVE**

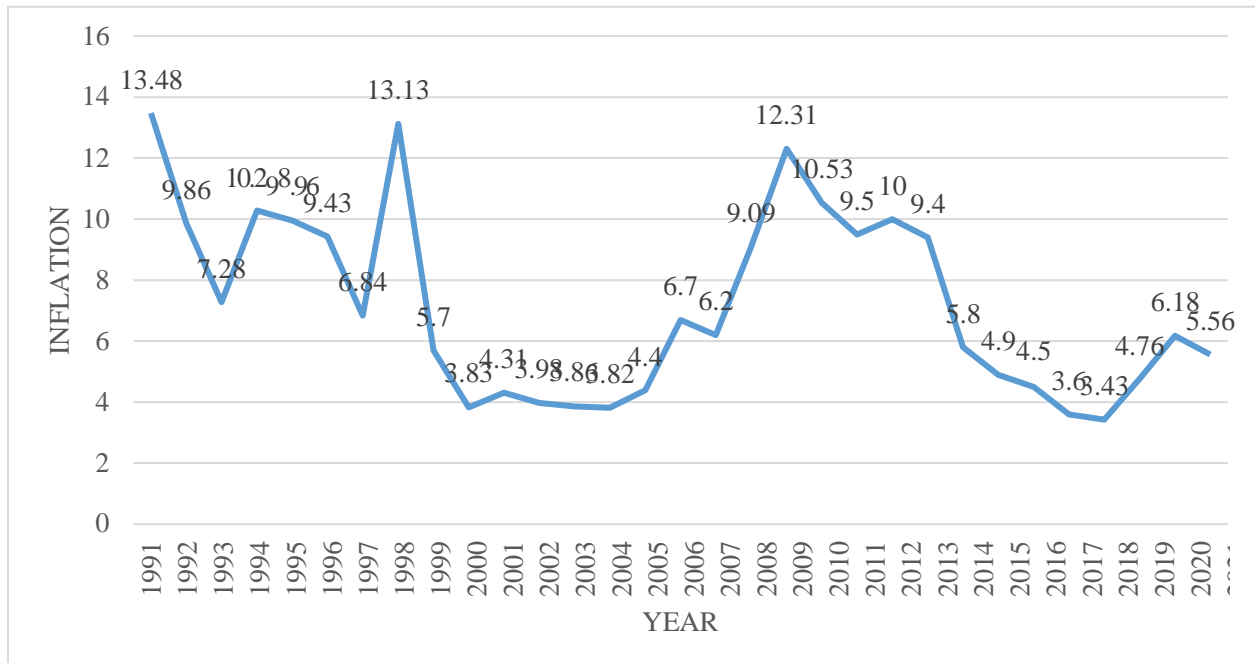
The concept behind the Phillips curve states the change in unemployment within an economy has a predictable effect on price inflation. The inverse relationship between unemployment and inflation is depicted as a downward sloping, concave curve, with inflation on the Y-axis and unemployment on the X-axis. Increasing inflation decreases unemployment, and vice versa. Alternatively, a focus on decreasing unemployment also increases inflation, and vice versa. The belief in the 1960s was that any fiscal stimulus would increase aggregate demand and initiate the following effects. Labour demand increases, the pool of unemployed workers subsequently decreases and companies increase wages to compete and attract a smaller talent pool. The corporate cost of wages increases and companies pass along those costs to consumers in the form of price increases. This belief system caused many governments to adopt a “stop-go” strategy where a target rate of inflation was established, and fiscal and monetary policies were used to expand or contract the economy to achieve the target rate. However, the stable trade-off between inflation and unemployment broke down in the 1970s with the rise of stagflation, calling into question the validity of the Phillips curve. Expectations and the long run Phillips Curve.

The phenomenon of stagflation and the break down in the Phillips curve led economists to look more deeply at the role of expectations in the relationship between unemployment and inflation. Because workers and consumers can adapt their expectations about future inflation rates based on current rates of inflation and unemployment, the inverse relationship between inflation and unemployment could only hold over the short-run.

When the central bank increases inflation in order to push unemployment lower, it may cause an initial shift along the short-run Phillips curve, but as worker and consumer expectations about inflation adapt to the new environment, in the long-run, the Phillips curve itself can shift outward. This is especially thought to be the case around the natural rate of unemployment or NAIRU (Non Accelerating Inflation Rate of Unemployment), which essentially represents the normal rate of frictional and institutional unemployment in the economy. So in the long-run, if expectations can adapt to changes in inflation rates then the long-run Phillips curve resembles a vertical line at the NAIRU monetary policy simply raises or lowers the inflation rate after market expectations have worked themselves. In the period of

stagflation, workers and consumers may even begin to rationally expect inflation rates to increase as soon as they become aware that the monetary authority plans to embark on expansionary monetary policy. This can cause an outward shift in the short-run Phillips curve even before the expansionary monetary policy has been carried out, so that even in the short run the policy has little effect on lowering unemployment, and in effect, the short-run Phillips curve also becomes a vertical line at the NAIRU. (Simar Andersen 2022)

**INFLATION RATE (1991-2021)**



**FIGURE -16**

The (figure-16) explain the descriptive statistics about inflation, the gap indicates that India's unemployment is consistent and less volatile. The Minimum and maximum values of inflation have a big gap in the 29 years period. The gap indicates that India's inflation is inconsistent and highly volatile. While the variation and gap between maximum and minimum values can be found comparatively low, but still inconsistent in some years. The value of the GDP can be found low while in some cases it is found higher. Therefore it is also found vibrant the inflation rate for the year 1991 the inflation rate has been maximum has been recorded 13.48 percent but in the year 2017. The inflation rate has minimum of 3.43 percent. The inflation rate has been goes up's and down's. But in the year 2014 the inflation rate has been decreased but sudden change in the inflation rate 2020 due to COVID -19 virus attack the economy has been affected. The empirically on the relationship between unemployment and inflation in Indian economy, a model will be employed. In the first model, inflation, GDP will

be regressed on unemployment in order to ascertain the impact of the explanatory variables. In the second model, unemployment, GDP will be regressed on Inflation. From the foregoing analysis, three models can be written in its functional form as follows:

$$\text{UNEMP} = f(\text{INF}, \text{GDP})$$

$$\text{INF} = f(\text{UNEMP}, \text{GDP})$$

$$\text{GDP} = f(\text{UNEMP}, \text{INF})$$

Where, UNEMP = Unemployment Rate,

- INF = Inflation Rate,
- GDP = Gross Domestic Product
- f = functional relationship

Expanding the model into a linear mathematical relationship, we have,

$$\text{UNEMP} = \beta_0 + \beta_1 \text{RGDP} + \beta_2 \text{INF}$$

$$\text{INF} = \beta_0 + \beta_1 \text{UNEMP} + \beta_2 \text{RGDP}$$

$$\text{GDP} = \beta_0 + \beta_1 \text{UNEMP} + \beta_2 \text{INF}$$

Econometrics model, by including stochastic term (*et*),

$$\text{UNEMP} = \beta_0 + \beta_1 \text{RGDP} + \beta_2 \text{INF} + et$$

$$\text{INF} = \beta_0 + \beta_1 \text{UNEMP} + \beta_2 \text{GDP} + et$$

$$\text{GDP} = \beta_0 + \beta_1 \text{UNEMP} + \beta_2 \text{INF} + et$$

Where,  $\beta_0$  is intercept depicting unemployment when the explanatory variables are equal to zero in first model, inflation in the second model when the explanatory variables are equal to zero and GDP in the third model when the explanatory variables are equal to zero.  $\beta_0$  and  $\beta_1$  are the co-efficient or parameters attached to the explanatory variables. Inclusion of the stochastic or error term (*et*) in the above model is to capture the impact of other variables that are not included in the models.

**TABLE -13****THE SIMPLE LINER REGRESSION FOR INFLATIONAND THE  
UNEMPLOYMENT RATE FOR THE YEAR (1991-2021)**

<b>MODEL 1</b>					
<b>R</b>	<b>R Square</b>	<b>Adjusted R square</b>	<b>Std. Error of the Estimate</b>		
.037	.001	-0.33	3.09419		
<b>ANOVA</b>					
<b>Model</b>	<b>Sum of square</b>	<b>DF</b>	<b>Mean square</b>	<b>F</b>	<b>Sig</b>
Regression	.372	1	.372	.039	.845
Residual	277.646	29	9.574		
Total	278.019	30			
<b>COEFFICIENT</b>					
<b>Variables</b>	<b>Standardized coefficients</b>	<b>T</b>	<b>Sig</b>		
Inflation		.962	.344		
Unemployment	-0.37	-.197	.845		

The above table-13 explains correlation between unemployment rate and Inflation rate. The value of F-test is found as below the standard value of rule of thumb 0.39 and significance level is just 0.845. All these findings are disclosing that model is not satisfactory. On other part of the table explains the model fitness between inflation and unemployment rate 0.01 percent variability in unemployment rate is due the inflation the F-test 0.39 and which is above the standard 0.05 the level of significance is just above the higher level of the significance, therefore, it can be concluded that the model is satisfactory between inflation rate and unemployment rate and GDP. The last part explains the model fitness between GDP and Unemployment rate.

## ANALYSIS OF PHILLS CURVE

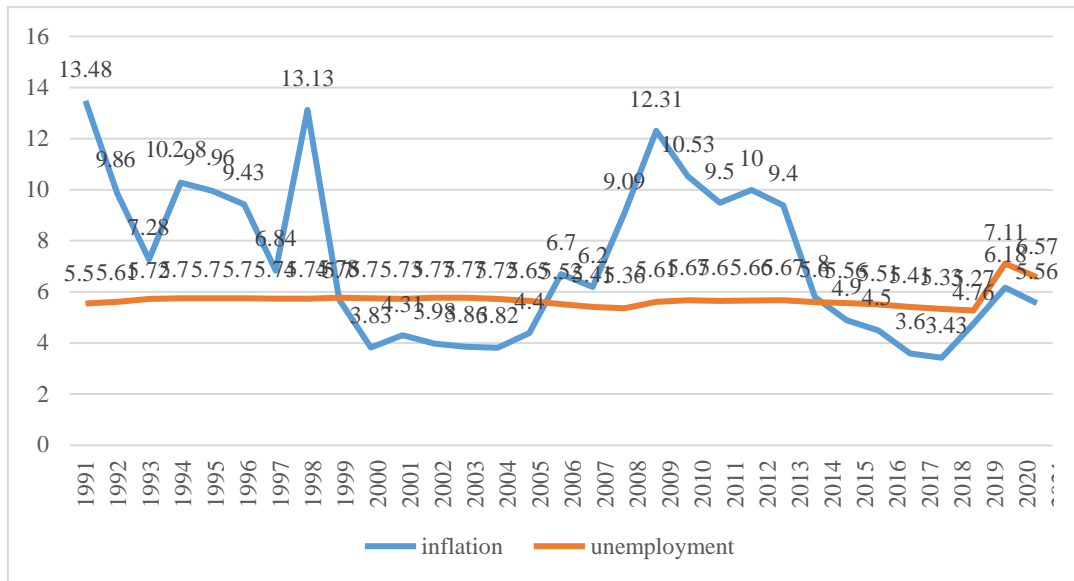


FIGURE- 17

The above figure-17 explains the relationship between unemployment and inflation in India from the year 1991-2021. Variation in the year 2009-2010 shows the percentage of both parameters is increased, where in the year 2011-2012 inflation rate was decreased and unemployment rate also decreased similarly in the year 2020, 2021. The inflation and unemployment rate has been increase due to COVID 19. The economy became collapsed due to pandemic. Lockdown from above data it observed that India Philips curve concept does not exit. Thus it can be conclude that there was no relationship between inflation and unemployment in India during the study period. The short run trade off does not exist between inflation and unemployment in India economy.

### INTERPRETATION OF THE THREE BI-VARIATE REGRESSION MODEL

The two equations were taken for the regression to shown the result of unemployment impact on inflation GDP and other to show the GDP impact on unemployment inflation. The equations are,

$$UNEMP = \beta_0 + \beta_1 RGDP + \beta_2 INF + et$$

$$INF = \beta_0 + \beta_1 UNEMP + \beta_2 GDP + et$$

$$GDP = \beta_0 + \beta_1 UNEMP + \beta_2 INF + et$$

The values of unemployment, GDP and INF has been negative impact Indian economy but no significant values. The relationship between Inflation and unemployment is negative, thus

insignificant. The GDP growth and unemployment is very important for policy makers in order to obtain a sustainable rise in living standards. GDP growth rate is below its natural rate it is indicated to promote employment because this rise in total income will not generate inflationary pressures. In contrast, if the GDP growth is above its natural level, policy makers will decide not to intensively promote the creation of new jobs in order to obtain a sustainable growth rate which will not generate inflation.

**TABLE - 14**

**THE SIMPLE LINER REGRESSION FOR INFLATION AND THE UNEMPLOYMENT RATE, GDP FOR THE YEAR (1991-2021)**

<b>MODEL 2</b>			
<b>R</b>	<b>R Square</b>	<b>Adjusted R square</b>	<b>Std. Error of the Estimate</b>
.113	.013	-0.058	3.13082

<b>ANOVA</b>					
<b>Model</b>	<b>Sum of square</b>	<b>DF</b>	<b>Mean square</b>	<b>F</b>	<b>Sig</b>
Regression	3.560	2	1.870	.182	.835
Residual	274.458	28	9.802		
Total	278.018	30			

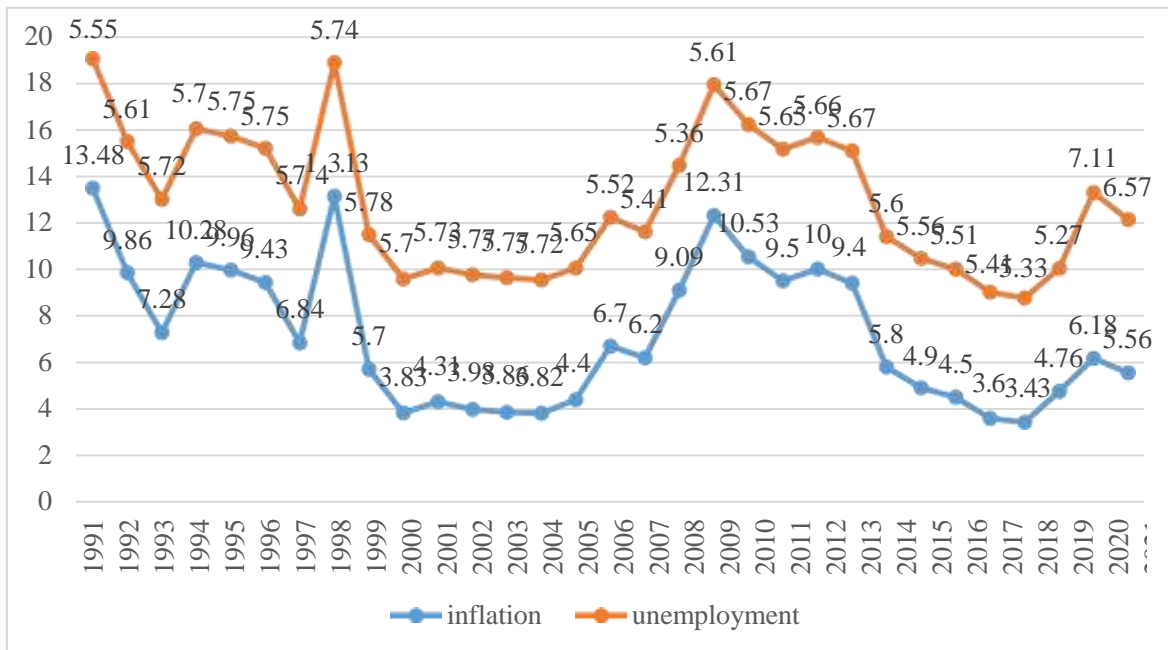
<b>COEFFICIENT</b>			
<b>Variables</b>	<b>Standardised coefficients</b>	<b>T</b>	<b>Sig</b>
Inflation	12.748	1.107	.278
Unemployment	-0.857	-.449	.657
GDP	-.116	-.570	.573

The above table -14 shows the statistical results of regression. The regression results between the two variables Unemployment and inflation shows a negative unit change from inflation. The findings are proving the phenomenon in such way that one unit change in inflation brings negative unit change in unemployment. Finally for the significance level, it can

also be observed to be highly above the required level that is 12.748 Inflation rate of the Indian economy.

On the Second Model, the regression between inflation and unemployment and GDP is found to show a negative unit change from Unemployment, the findings are proving the phenomenon in such way that one unit change in inflation brings negative change in unemployment. Finally for the significance level is also highly above the required level that is 0.835, unemployment rate of the Indian economy. In the third model, the Regression between GDP and Unemployment is found to be negative unit change from the unemployment and negative from the Inflation. The findings are proving the phenomenon in such way that one unit change in Unemployment brings negative .657 unit change in unemployment. Finally the significance level is also high above the required level that is 0.01, The R-square of 0.01 illustrates that 1 percent variation in unemployment is explained by GDP and Inflation in first model. The F-statistics values for unemployment and Inflation indicate the rejection of the hypothesis that there is causation between inflation and unemployment.

**INFLATION, UNEMPLOYMENT, GDP RATE FROM THE YEAR (1991-2021)**



**FIGURE - 18**

## **4.7 ANALYSIS CONSUMER PRICE INDEX IN INDIA**

The Consumer Price Index (CPI) is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food, and medical care. It is calculated by taking price changes for each item in the predetermined basket of goods and averaging them. Changes in the CPI are used to assess price changes associated with the cost of living. The CPI is one of the most frequently used measures of inflation and deflation. It may be compared with the producer price index (PPI), which instead of considering prices paid by consumer's looks at what businesses pay for inputs. The CPI statistics cover a variety of individuals with different incomes, including retirees, but does not include certain populations, such as patients of mental hospitals. The CPI is composed of the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) and the Consumer Price Index for All Urban Consumers (CPI-U).

### **UNDERSTANDING THE CONSUMER PRICE INDEX (CPI)**

Inflation is the decline of a given currency's purchasing power over time or, alternatively, a general rise in prices. A quantitative estimate of the rate at which the decline in purchasing power occurs can be reflected in the increase of an average price level of a basket of selected goods and services in an economy over some period of time. The rise in the general level of prices, often expressed as a percentage, means that a unit of currency effectively buys less than it did in prior periods. The CPI is what is used to measure these average changes in prices that consumers pay for goods and services over time. Essentially, the index attempts to quantify the aggregate price level in an economy and thus measure the purchasing power of a country's unit of currency. The weighted average of the prices of goods and services that approximates an individual's consumption patterns is used to calculate CPI. A trimmed mean may be used as part of this calculation. CPI is an economic indicator. It is the most widely used measure of inflation and, by proxy, of the effectiveness of the Federal Reserve's monetary policy. The CPI gives the government, businesses, and citizens an idea about price changes in the economy and can act as a guide in order to make informed decisions about the economy.

The CPI and the components that make it up can also be used as a deflator for other economic indicators, including retail sales and hourly/weekly earnings. Additionally, it can be used to value a consumer's dollar to find its purchasing power. Generally, the dollar's purchasing power declines when the aggregate price level increases and vice versa. The index can also be used to adjust people's eligibility levels for certain types of government assistance

including Social Security, and it automatically provides the cost-of-living wage adjustments to domestic workers. According to the BLS, the cost-of-living adjustments of more than 50 million people on Social Security as well as military and federal civil services retirees are linked to the CPI would indicate a rise in the inflation level of 75 percent and 125 percent respectively. The quoted inflation rate is actually the change in the index from the prior period, whether it is monthly, quarterly, or yearly. Though it does measure the variation in price for retail goods and other items paid by consumers, the Consumer Price Index does not include things like savings and investments and can often exclude spending by foreign visitors.

The CPI statistics cover professionals, self-employed and unemployed people, people whose incomes are below the federal poverty threshold, and retired people. People not included in the report are non-metro or rural populations, farm families, armed forces, people currently incarcerated, and those in mental hospitals also come in CPI (Consumer price Index)The CPI represents the cost of a basket of goods and services across the country on a monthly basis. Those goods and services are broken down into eight major groups. The BLS includes sales and excise taxes in the CPI—or those that are directly associated with the price of consumer goods and services—but excludes others that aren't linked, such as income and Social Security taxes. It also excludes investments (stocks, bonds, etc.), life insurance, real estate, and other items unrelated to consumers' day-to-day consumption (Peter West fall, 2022).

## **FORMULA**

$$\text{CPI}_t = \frac{C_t}{C_0}$$

$\text{CPI}_t$  = consumer price index in current period

$C_t$  = cost of market basket in current period

$C_0$  = cost of market basket in base period

## **TYPES OF CPI**

- CPI for urban consumers
- CPI for wage earners

The CPI-W is the Consumer Price Index for Urban Wage Earners and Clerical Workers. In the year 1977, the BLS focused on measuring this type of CPI. It was based on households whose incomes were comprised of more than one-half from clerical or wage occupations, and

in which at least one of the earners was employed for at least 37 weeks during the previous 12-month cycle. The CPI-W primarily reflects changes in the costs of benefits paid to those on Social Security. This measurement of CPI represents at least 28 percent of the country's population.

The CPI-U is the Consumer Price Index for CPI for wage earners. The BLS made improvements to CPI in 1978 and introduced a broader target population. This type of CPI is based on the spending of almost all of the population that resides in urban or metropolitan areas and includes professionals, self-employed workers, those living below the poverty line, those who are unemployed, and retired people. It also includes urban wage earners and clerical workers. Despite measuring the cost of the same goods and services, the BLS initially conducted two separate surveys to calculate CPI-W and CPI-U. The surveys were merged in 1980. Now, CPIW is derived from the same data gathered for CPI-U, and the only difference is the expenditure weights assigned to item categories and geographic areas.

#### CPI DATA FOR THE YEAR (1991- 2008)

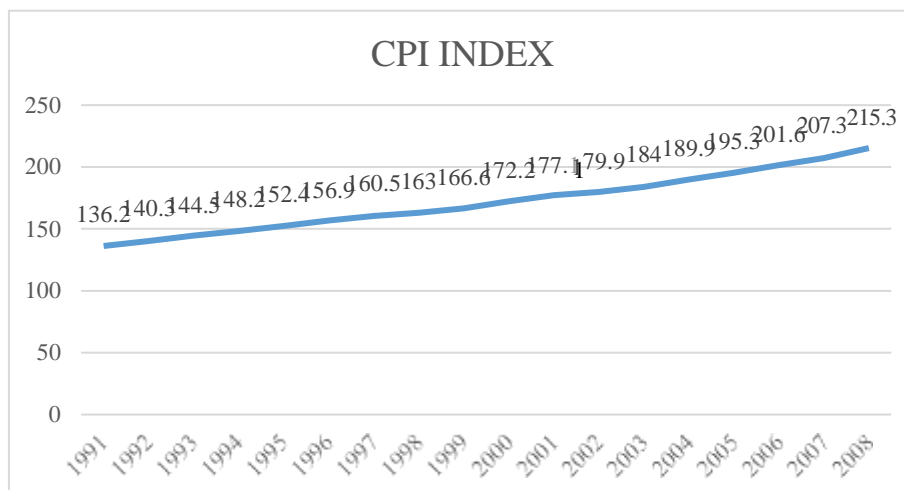


FIGURE -19

#### 4.8 UNEMPLOYMENT DUE TO COVID - 19

Corona virus disease -2019 (COVID-19) is an infectious disease causes by newly discovered coronavirus the spread of COVID-19 has created enormous challenges for the both developing and developed countries. Global supply chains have been disturbed, and economies are entering a recession the affected countries are taking preventive measures to curb the virus but on the other hand continuous lockdowns and business shutdowns further slowdown economic growth, as a result millions of people are becoming unemployed, producing steers

and depression among global communities. Similarly the fear of losing jobs, or working in reduced wages has created further career shocks among skilled and unskilled workers (Abdurrahman2020). The pandemic has triggered one of the worst jobs crises since the great depression (Koustav Das, 2020). There is a real danger that the crisis will increase poverty and widen in equalities, and unemployment with the impact felt for years to come. In April 2020, the International Labour Organization (ILO) estimated that nearly 2.5 core jobs could be lost worldwide due to the COVID-19 pandemic. More than 40 core informal workers in India may get pushed into deeper poverty due to the pandemic. Millions of employed have lost jobs in the various sectors.

The small traders and daily wage earners, lost jobs lockdown. The lockdown came into force on March 25, initially for three weeks then extended to year (Kiran sharma, 2020). The transport has been stopped, so many people suffers to go to home town.

The context of a large-scale defiance of the lockdown by the migrant workers, starting barely 3 days after the announcement of the lockdown and widely captured by the media (Praveen Jhan, 2021). The world, who had lost not only their jobs but also their hearth and temporary homes in their destination areas, with no hope of support from their employers, the government or any other quarter many died on the way, of hunger, exhaustion and accidents. These were ultimate of livelihood and employment precocity in India.

### UNEMPLOYMENT DUE TO COVID -19

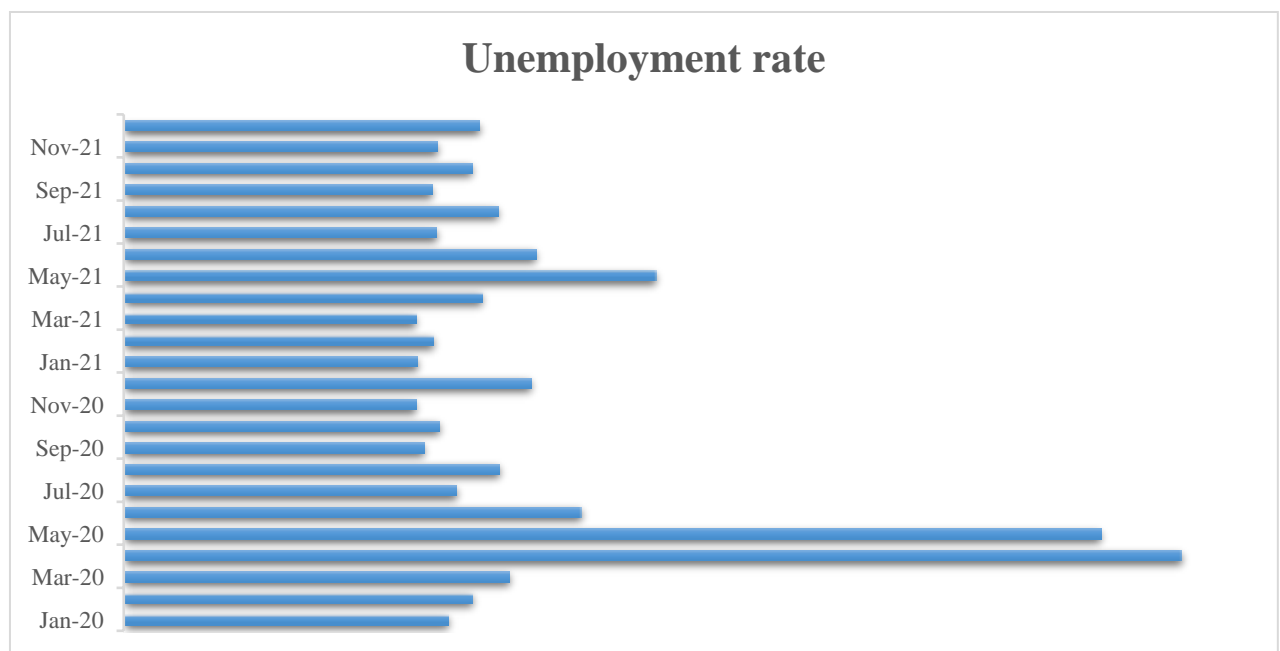


FIGURE -20

The above (figure-20) explains that the unemployment rate for the year (2020-2021) has been calculated. It shows that there is more unemployment rate in the month of (March-21 and Nov-21) the unemployment rate is (6.50 Percent) when lockdown was announced the ratio of unemployment was increased (23.52 percent in the month of April 2020) we can see the unemployment rate has been increasing.

#### **4.8.1 AGE WISE UNEMPLOYMENT DUE TO COVID-19**

The unemployment are people of working age who are without work, are available for work and have taken specific step to find work. The uniform application of this definition result in estimates of unemployment rates that are more internationally comparable than estimates based on the national definitions of unemployment. Unemployment rates are show for two age groups. People aged 15 to 24 (Those just entering the labour market following education) and people aged 25 above and over. This indicator is measured in numbers of unemployment people as percentage of the labour force and it is seasonally adjusted. The labour force is defined as the total number of unemployed people plus those in civilian employment. Data are based on labour force surveys (LFS).Centre for monitoring Indian economy said 27 million youth in the age group of 20-30 years lost their jobs in April 2020 following a national wide lockdown to prevent the spread of COVID 19. According to the CMIE weekly report the unemployment rate fell from 27.1 percent to 24 percent for the week ended May 10 while the labour participation rate rose while the labour partition rate rose from 36.2 percent to 37.6 percent as the government opens up industries in a staggered manner. Employment rate also rose from 26.4 percent to 28.6 percent. According CMIE'S Consumer Pyramids Household Survey show youngsters in the age group 20 to 24 years accounted for 11 percent of those who lost jobs while constituted 8.5 percent to the total employed persons in the country in 2019-2020. The 34.2 million of these working young men and women were in 2019-2020. In April 2020 their number were down to 20.9 million (Yogima Seth Sharma 2020). The age group of 25-29 years. This loss again was disproportionately high as this group accounted for 11.1 percent of total employment in 2019-2020 but it accounted for 11.5 percent of the job losses.

## AGE WISE UNEMPLOYMENT DUE TO COVID -19

(For the month April to June)

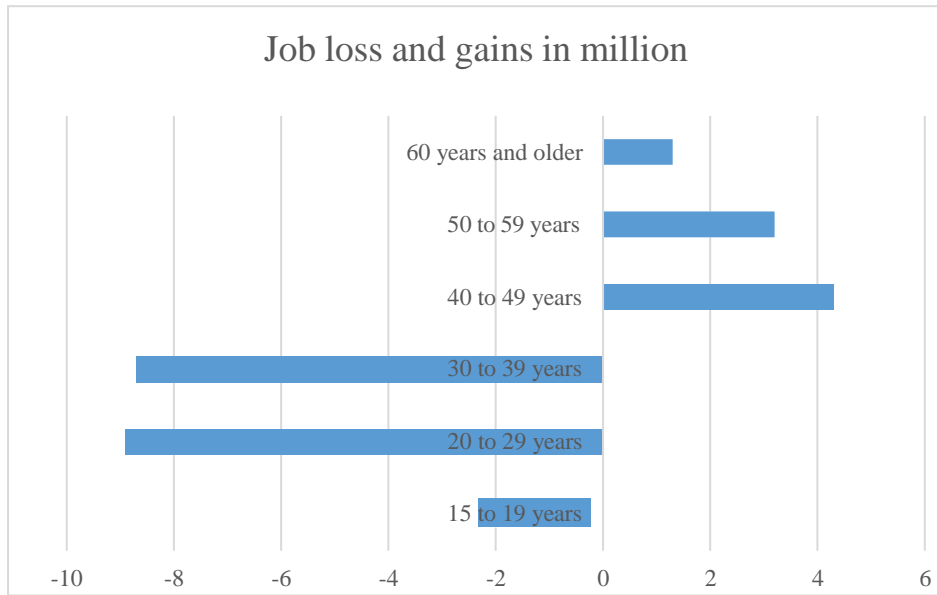


FIGURE -21

The above (figure-21) explains the unemployment rate by age group. People between the ages 15 and 39 were most impacted by the coronavirus (Covid19 lockdown in India in 2020 in terms of job loss. Those between 25 and 29 years old alone accounted for about 46 percent of all job losses. On the other hand older Indians close to nine million gained jobs during the same time.

## **SUMMARY AND CONCLUSION**

## **CHAPTER V**

### **SUMMARY AND CONCLUSION**

#### **INTRODUCTION**

Unemployment is a powerful statistic that shapes government policy and personal decisions. The government keeps a close eye on the unemployment rate. Our action, feeling and thought are also influenced by it. An individual status in the family and community, as well as the reflection of the employment, the person does. Work can provide a variety of satisfactions including achievement, recognition, responsibility and intrinsic pleasure. Work also impresses a time structure, and provides opportunities for social interaction and for the development of identity and self-esteem. India, any person working about 8 hours a day for 273 days annually is considered as employed on a standard person-year basis. Thus, a person to be called an Employed person must get meaningful work for a minimum of 2184 hours in a year (Amarjeet Singh, 2002). The person, who does not get work for this duration, is known as an Unemployed person.

#### **UNEMPLOYMENT AND INDIA**

India's manufacturing sector, in formal employment and in numbers of youth 'Unemployed but looking for work' are all indicators of the severe jobs crisis. The last few years, as unemployment has risen and labour force participation has fallen, employment opportunities for India's youth have especially worsened. In 2019, it was reported that India's unemployment rate in 2017-18 was the worst in over four decades, according to NSSO surveys. Throughout 2021 – CEDA's first year in existence – we analyzed public data that demonstrated the scale of India's unemployment crisis, especially for women and the youth (Ankur Bhardwaj, 2022). In our latest CEDA-CMIE Bulletin, we looked at changes in employment by gender over the last 5 years. In this bulletin, we are summarizing the main points from three previous CEDA publications from 2021 that highlighted the magnitude of India's jobs crisis.

#### **CAUSES OF UNEMPLOYMENT**

The major causes of unemployment in India are as mentioned below:

- Large population
- Lack of vocational skills or low educational levels of the working population

- Labour-intensive sectors suffering from the slowdown in private investment particularly after demonetization
- The low productivity in the agriculture sector plus the lack of alternative opportunities for agricultural workers that makes transition among the three sectors difficult
- Legal complexities, inadequate state support, low infrastructural, financial and market linkages to small businesses making such enterprises unviable with cost
- Inadequate growth of infrastructure and low investments in the manufacturing sector, hence restricting the employment potential of the secondary sector
- The huge workforce of the country is associated with the informal sector because of a lack of required education or skills, and this data is not captured in employment statistics
- The main cause of structural unemployment is the education provided in schools and colleges are not as per the current requirements of the industries
- Regressive social norms that deter women from taking/continuing employment

## **RESEARCH GAP**

Education many research are focused on the quality of education and Improvement the skill of students reduce the unemployment Bhebh, et.al., (2015), Allais (2012), Lerman (2013), Mohammad Raza Faeazanaga, and Hassan Gholpo (2020), Mental and health condition, emotion, physically. Some researcher are focused on the mental, Healthcare, Emotion, physically factor that affect the employment opportunity Uddin (2013), Bhosale (2014) Zgozden (2014), Marcelo Manucci (2020), Nazir (2013), Populations/ Migration Population is the major cause to increase the unemployment some case study deals about the Population increases Nwagwu (2014), Axelrad (2018), Gomathi Neela (2016), Nasr Mohmmad Pathan (2018), Age / Gender Discrimination this study are focus in the age, Gender discrimination Axelard (2018), Gorlich (2012), Sharma(2012), AuroraTrif (2015). The Policy also reason for unemployment Neder (2019), Sundaram (2018), Ichman(2014), Swathi Merkani (2018), StephenWate (2016) The study deals with tribes unemployment, Kasar Nigir (2014) Poverty Some study deals with the poverty, Bhasin Reena (2019), Vijay Chandra (2020), Pravin Sinha (2011) The study focused on the COVID 19 Case study Abdulrahman and Alyoubi (2020),

Luisa Errichiello et.al., (2020) Anne Green and Rebeeca Pilay (2020), Vaishali Venu and Gopal Arun Kumar (2020).

The study research gap /identified what are the causes of unemployment and what are the reasons for unemployment. When Unemployment increases the GDP rate decreased are applied in Okun's law. Until the year 2019 the unemployment rate was normal, in the year 2020. The COVID-19 impact a lot in the unemployment rate, and the aim of the project is the effects of unemployment rate. Improvement of the technical and practical skills to be developed. Practical knowledge and theoretical knowledge for the student is to be improved. Extra co-curricular activities must be added to the syllabus. Improvement of the manpower to be raised. "Single person single job is to be implemented". Poor people and illiterate people should get a job without any gender and age variation. This are the factors to reduce the unemployment rate.

## **METHODOLOGY**

### **SELECTION OF PROBLEM**

The problem of unemployment has been one of the deepest concern in the most countries of the world it is true that unemployment is a commonly faced by both industrialized developed and non-industrialized underdeveloped countries there is a major problem facing in India there's a major source of hardship deprivation and suffering too many people and society at large. Whereas employment determines one's chances for leading a peaceful and meaningful life high persistent unemployment can signal serious distress and can even lead to social political upheaval. However extremely low unemployment can also be a cautionary sign of an overheating economy, inflation, pressure and tight conditions for business in need of additional work. There are many people in the world and our country to have failed to secure a job.

### **COLLECTION OF DATA**

This study was based on secondary data resources. Secondary data was collected from various sources like NSSO Employment Percent Unemployment Survey Report, and periodic labor force survey (PLFS), NSO, Office of the Registrar General and Census Commission, Ministry of Home Affairs Government of India, National Sample Survey Organization, RBI Work Bank Data 2021, Ministry of Statistical and Planning Implementation (MSPI), Labour Force Survey Report, Ministry of Statistical and Program Implementation (PRSI), Statista, Employment Exchange Statistics Government of India, Ministry of Labour & Employment Directorate, General of Employment (2016, 2017, 2018, 2019).

## **TOOLS USED**

The following statistical tools were used for this analysis:

- Growth rate
- Correlation
- Simple linear regression

## **OBJECTIVES**

The specific objective of the study is to examine to contribution of the Unemployment problem in India. The objectives of the study are

- To analysis the nature of unemployment in India.
- To examine gender wise unemployment and relationship between literacy rate and sex ratio trends in India.
- To found out relationship between inflation, unemployment and GDP.
- To study the unemployment pattern before and after COVID -19.
- To suggest the policy implications.

## **HYPOTHESIS**

- Null hypothesis: There is no short run trade off relationship between and unemployment in India
- Null hypothesis: There is insignificant relationship between inflation and unemployment
- Null hypothesis: GDP has no significant impact on unemployment in India
- The available data of inflation and unemployment it has seen in the study that when inflation increases in the year the unemployment rate also increase in the year the unemployment rate also increase in the different ratio or independent ratio
- The data of GDP and unemployment show inverse relation with each other.

## **MAJOR FINDINGS OF THE STUDY**

### **POPULATION**

The population growth has been calculated for the year 1981- 2011. The growth rate for the year 1981 -1991 =19.27 percent, in the year 1991- 2001 =17.72 percent for the year 2001-2011 = 49.37 percent. The maximum growth rate has been found 49.37 percent for the year (2001-2011) and the minimum growth rate has found 17.72 percent for the year (1991-2001). The growth of the population has been increased in the year of 2001-2011 comparing to the year 1981 to 1991.

### **UNEMPLOYMENT RATE**

The unemployment growth rate has calculated for male female and overall for 1000 of people in urban area. For the year 1999- 2019 and the maximum and minimum unemployment rate has calculated for all the states in India. The maximum unemployment rate has calculated for the years 1999-2000 = 185 Rajasthan, 2004-2005 = 279 Pondicherry, 2009-2010 = 170 Pondicherry, 2011-2012 = 251 Pondicherry, 2017-2018 = 210 Uttarakhand, 2018-2019 = 285 Daman& Diu. And minimum unemployment rate has found in 1999-2000 = 14 Mizoram, 2004-2005 = 11 Goa, 2009-2010 = 17 Andaman and Nicobar, 2011-2012 = 4 Andaman and Nicobar, 2017-2018 = 4 Andhra Pradesh, 2018-2019 = 31 Tripura.

### **LITERACY RATE AND SEX RATIO**

Literacy and sex ratio is correlated as the important aspect of population. Education is necessary for personal and national development. It's found that there is a strong relationship between literacy and economic status of the country. The literacy rate and Sex ratio is calculated by using Spearman correlation method is used to calculate the relationship between sex ratio and literacy rate. For the following years 1981, 1991, 2001, 2011. In 1981= 5590, 1991 = 5151, 2001= 5120, 2011= 5329 Literacy rate and sex ratio is strongly correlated between each other.

### **GDP RATE, UNEMPLOYMENT RATE AND INFLATION**

The high significant between the variable unemployment and GDP when the unemployment is increasing the GDP is decreasing there is a relationship between the variables. When there is a little change in the unemployment rate there is impact of the GDP. Okun's law focuses on a relationship between unemployment and GDP, whereby a percentage increase in unemployment causes a 2 percent fall in GDP increase in unemployment percentage there decrease in the GDP rate. In 2020 the unemployment rate has increased GDP

rate has been decreased and per capital income also decreased due to COVID 19. COVID 19 created many problems like unemployment, poverty .People are affected by corona virus and they lost their life and lots of jobs, and their families. COVID 19 made the economy down and it changed many peoples life. This confirms that unemployment substantially affect inflation while GDP has little substantial effect.

### **COVID 19 UNEMPLOYMENT**

People between the ages 15 and 39 were most impacted by the coronavirus (covid19\_ lockdown in India in 2020 in terms of job loss. Those between 25 and 29 years old alone accounted for about 46 percent of all job losses.

### **SUGGESTIONS**

- To government to assure job opportunities for graduate
- To establish employment grantee programme for the youngsters
- Full and more productivity employment
- More improvement in production program
- Reducing the machinery work and promote labour intensive work
- High rate of capital formation
- To reduce the gap between job seekers and job makers
- Population control
- To encourage self-employment and skill development.

### **FUTURE RESEARCH**

- The economic development might not only be in single dimensional but it also be in multidimensional.
- Due to this being in multi-dimensional some of the indicators may be left.
- So the future researcher when includes the level of indicators in economic development more wide area will be covered.
- This would give more integrated period.

## **POLICY**

- The government should try to implement policies regarding the employment programme especially to absorb educated unemployed people
- The policy makers should give importance's to implement the programme which can absorb unskilled workforces so that much of these workforces try to involve themselves into self-employment
- India is labour economy therefore the government should provide job opportunities. And the government should manage the relationship from time to time by focusing on both fiscal and monetary policy
- The main issue is how to achieve a workable balance between inflation and unemployment. This balances requires effective instruments.

## **CONCLUSION**

India is faster growing economy there is an enormous scope of improvement on the Unemployment sector. The various measures steps taken by the government to increase the Employment rate have succeeded to the great extent. The white spread skill development program are gained popularity across the nation with better enforcement of stagey, the employment level can be significantly intro although we have to a long way before we can say that app the people in India will get employment including you.

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## **APPENDICES**

**STATE WISE POPULATION LIST FROM (1981 – 2011)**

<b>SL.N O</b>	<b>STATE</b>	<b>1981</b>	<b>1991</b>	<b>2001</b>	<b>2011</b>
1	Andhra Pradesh	53551	66508	76210	84581
2	Arunachal Pradesh	632	865	1098	1384
3	Assam	18041	22414	26656	31206
4	Bihar	52303	64531	82999	104099
5	Chhattisgarh	14010	17615	20834	25545
6	Delhi	6220	9421	13851	16788
7	Goa	1008	1170	1348	1459
8	Gujarat	34086	41310	50671	60440
9	Haryana	12922	16464	21145	25351
10	Himachal Pradesh	4281	5171	6078	6865
11	Jharkhand	17612	21844	26946	32988
12	Karnataka	37136	44977	52851	61095
13	Kerala	25454	29099	31841	33406
14	Madhya Pradesh	38169	48566	60348	72627
15	Maharashtra	62783	78937	96879	112374
16	Manipur	1421	1837	2294	2856
17	Meghalaya	1336	1775	2319	2567
18	Mizoram	494	690	889	1097
19	Nagaland	775	1210	1990	1979
20	Odisha	26370	31660	36805	41974
21	Punjab	16789	20282	24359	27743
22	Rajasthan	34262	44006	56507	68548
23	Sikkim	316	406	541	611
24	Tamil Nadu	48408	55859	62406	72147
25	Tripura	2053	2757	3199	3674
26	Uttarakhand	5726	7051	8489	10086
27	Uttar Pradesh	105137	132062	166198	199812
28	West Bengal	54581	68078	80176	912761
<b>UNION TERRITORIES</b>					
1	Andaman and Nicobar	189	281	356	381
2	Chandigarh	452	642	901	1055
3	Dara& Nagar Haveli	104	138	220	344
4	Daman& Diu	79	102	158	243
5	Jammu & Kashmir	5987	7837	10144	12541
6	Lakshadweep	40	52	61	64
7	Pondicherry	604	808	974	1248
	<b>ALL INDIA</b>	<b>683329</b>	<b>846421</b>	<b>1028737</b>	<b>1210855</b>

Source: NSSO Employment Percent Unemployment Survey Report: NITI Aaog and Periodic Labor Force Survey (PLFS), NSO, (1981, 1991, 2001, 2011).

**STATE WISE UNEMPLOYMENT RATE FROM (1999-2019)**

**(URBAN MALE) (PER THOUSAND)**

SL.NO	STATE	1999-2000	2004-05	2009-10	2011-12	2017-18	2018-19
1	Andhra Pradesh	40	36	25	39	54	62
2	Arunachal Pradesh	14	11	34	36	82	74
3	Assam	77	69	40	54	53	99
4	Bihar	73	67	63	45	92	104
5	Chhattisgarh	-	38	31	41	59	46
6	Delhi	32	46	26	33	96	109
7	Goa	147	76	35	29	60	69
8	Gujarat	20	23	15	6	43	34
9	Haryana	27	32	22	40	65	86
10	Himachal Pradesh	62	17	31	19	74	65
11	Jharkhand	-	75	53	46	104	87
12	Karnataka	30	19	24	24	63	50
13	Kerala	56	62	29	27	66	52
14	Madhya Pradesh	41	31	27	24	79	77
15	Maharashtra	56	35	28	18	62	52
16	Manipur	69	52	50	56	111	98
17	Meghalaya	34	35	30	24	56	46
18	Mizoram	34	16	25	40	127	74
19	Nagaland	93	46	61	191	165	154
20	Odisha	70	90	40	39	73	101
21	Punjab	28	29	44	26	65	61
22	Rajasthan	26	28	17	32	68	85
23	Sikkim	67	36	-	32	42	39
25	Tamil Nadu	36	29	24	21	65	60
26	Tripura	54	166	93	225	60	87
27	Uttarakhand	-	42	29	25	71	102
28	Uttar Pradesh	43	35	29	42	96	112
29	West Bengal	72	56	35	43	67	53
<b>UNION TERRITORIES</b>							
1	Andaman and Nicobar	30	65	42	40	34	35
2	Chandigarh	32	31	30	57	52	77
3	Dara& Nagar Haveli	16	13	42	-	1	13
4	Daman& Diu	14	28	27	-	23	-
5	Jammu & Kashmir	45	37	47	41	61	56
6	Lakshadweep	65	111	87	53	132	218
7	Pondicherry	33	41	20	27	80	63

Source: NSSO Employment Percent Unemployment Survey Report: NITI Aayog and periodic labour Force Survey (PLFS) , NSO, (1999-2019).

**STATE WISE UNEMPLOYMENT URBAN FEMALE (1999-2019)**

(PER THOUSAND)

SL.N O	STATE	1999- 00	2004- 05	2009 -10	2011- 12	2017- 18	2018- 19
1	Andhra Pradesh	37	38	51	54	91	102
2	Arunachal Pradesh	100	28	32	87	206	209
3	Assam	189	91	125	70	114	155
4	Bihar	81	41	160	165	62	123
5	Chhattisgarh	-	24	21	47	114	78
6	Delhi	39	64	22	46	114	99
7	Goa	333	118	72	97	298	144
8	Gujarat	20	29	31	17	43	25
9	Haryana	28	75	38	50	120	89
10	Himachal Pradesh	79	101	106	99	137	149
11	Jharkhand	-	23	121	89	115	84
12	Karnataka	44	57	40	44	72	61
13	Kerala	200	334	168	139	275	188
14	Madhya Pradesh	14	16	36	35	69	62
15	Maharashtra	66	41	50	38	115	106
16	Manipur	62	63	41	108	123	77
17	Meghalaya	68	35	90	37	89	133
18	Mizoram	24	26	34	67	177	127
19	Nagaland	87	72	190	360	364	429
20	Odisha	53	266	54	20	127	219
21	Punjab	21	140	66	36	135	113
22	Rajasthan	21	29	44	25	99	142
23	Sikkim	100	43	-	-	99	75
25	Tamil Nadu	51	48	54	45	90	84
26	Tripura	85	568	418	564	197	301
27	Uttarakhand	-	102	31	200	238	300
28	Uttar Pradesh	33	25	34	37	105	61
29	West Bengal	95	84	65	64	60	37
1	Andaman and Nicobar	173	172	205	197	471	382
2	Chandigarh	109	75	51	104	212	97
3	Dara& Nagar Haveli	-	91	600	-	-	54
4	Daman& Diu	80	33	-	22	43	-
5	Jammu & Kashmir	89	109	109	190	229	272
6	Lakshadweep	179	515	28	350	565	487
7	Pondicherry	64	195	60	37	176	52

Sources: NSSO Employment Percent Unemployment Survey Report: NITI Aayog and periodic labour Force Survey (PLFS) , NSO, (1999-2019).

**STATE WISE UNEMPLOYMENT URBAN OVERALL**

SL.NO	STATE	1999-2000	2004-2005	2009-10	2011-2012	2017-2018	2018-2019
1	Andhra Pradesh	39	36	31	43	66	73
2	Arunachal Pradesh	29	12	34	48	99	111
3	Assam	97	72	52	56	63	107
4	Bihar	74	64	73	56	90	105
5	Chhattisgarh	-	35	29	43	75	55
6	Delhi	33	48	26	35	75	55
7	Goa	185	87	41	46	138	91
8	Gujarat	20	24	18	8	43	32
9	Haryana	27	40	25	42	73	87
10	Himachal Pradesh	66	38	49	40	87	88
11	Jharkhand	-	65	63	51	105	87
12	Karnataka	33	28	27	29	65	52
13	Kerala	102	156	73	61	132	97
14	Madhya Pradesh	35	28	29	26	77	74
15	Maharashtra	58	36	32	23	74	64
16	Manipur	67	55	48	71	114	92
17	Meghalaya	46	35	51	28	67	75
18	Mizoram	30	19	28	50	144	91
19	Nagaland	91	55	92	238	211	211
20	Odisha	67	134	42	35	83	127
21	Punjab	27	50	48	28	77	70
22	Rajasthan	25	29	22	31	72	95
23	Sikkim	75	37	-	23	58	49
25	Tamil Nadu	40	35	32	27	72	67
26	Tripura	58	280	171	252	87	135
27	Uttarakhand	-	54	29	53	95	134
28	Uttar Pradesh	41	33	29	53	95	134
29	West Bengal	76	62	40	48	65	49
<b>UNION TERRITORIES</b>							
1	Andaman and Nicobar	69	88	84	46	174	120
2	Chandigarh	48	40	34	63	92	82
3	Dara & Nagar Haveli	14	30	53	-	1	18
4	Daman & Diu	30	30	24	5	26	-
5	Jammu & Kashmir	50	49	60	70	100	101
6	Lakshadweep	100	250	57	115	253	286
7	Pondicherry	41	81	31	29	103	60
	All India	47	45	34	34	78	77

Source: NSSO Employment Percent Unemployment Survey Report: NITI Aayog and Periodic labour Force Survey (PLFS),NSO.

**STATE WISE LITTERACY RATE AND SEX RATIO FOR THE YEAR (1981)**

<b>SL.NO</b>	<b>STATE</b>	<b>LITERACY RATE</b>	<b>SEX RATIO</b>
1	Maharashtra	57.24	937
2	Tamil Nadu	54.39	977
3	Uttar Pradesh	32.65	882
4	Gujarat	44.92	942
5	Karnataka	46.21	963
6	West Bengal	48.64	917
7	Rajasthan	30.11	919
8	Andhra Pradesh	35.66	975
9	Kerala	78.85	1032
10	Madhya Pradesh	38.63	921
11	Delhi	71.94	808
12	Haryana	37.13	870
13	Bihar	32.32	948
14	Punjab	43.37	879
15	Odisha	33.62	981
16	Assam	-	910
17	Jharkhand	35.03	940
18	Uttarakhand	46.06	936
19	Jammu & Kashmir	30.64	892
20	Himachal Pradesh	-	973
21	Goa	65.71	975
22	Tripura	50.10	946
23	Chandigarh	74.80	769
24	Pondicherry	65.14	985
25	Meghalaya	42.05	954
26	Sikkim	34.05	835
27	Nagaland	50.28	863
28	Manipur	49.66	971
29	Arunachal Pradesh	25.55	861
30	Mizoram	59.88	191
31	Andaman and Nicobar	63.19	760
32	Dara& Nagar Haveli	32.90	974
33	Lakshadweep	68.42	975
34	All India	43.57	934

Source: Office of the registrar General and Census Commissioner, Ministry of home affairs, Government of India.

**STATE WISE LITTERACY RATE AND SEX RATIO FOR THE YEAR (1991)**

<b>SL.NO</b>	<b>STATE</b>	<b>LITERACY RATE</b>	<b>SEX RATIO</b>
1	Maharashtra	76.88	922
2	Tamil Nadu	73.45	987
3	Uttar Pradesh	56.27	898
4	Gujarat	69.14	920
5	Karnataka	66.60	965
6	West Bengal	68.64	934
7	Rajasthan	60.41	921
8	Andhra Pradesh	60.47	978
9	Kerala	90.86	1058
10	Madhya Pradesh	63.74	948
11	Delhi	82.01	821
12	Haryana	67.91	861
13	Bihar	47.00	919
14	Punjab	69.65	876
15	Odisha	63.08	972
16	Assam	63.25	935
17	Chhattisgarh	81.94	989
18	Jharkhand	53.56	941
19	Uttarakhand	71.62	962
20	Jammu & Kashmir	55.52	-
21	Himachal Pradesh	76.48	968
22	Goa	82.01	961
23	Tripura	73.19	948
24	Chandigarh	81.94	777
25	Pondicherry	81.24	972
26	Meghalaya	62.56	972
27	Sikkim	68.81	875
28	Nagaland	66.59	900
29	Manipur	70.50	978
30	Arunachal Pradesh	54.34	893
31	Mizoram	88.80	935
32	Andaman and Nicobar	81.30	846
33	Dara& Nagar Haveli	57.63	812
34	Daman& Diu	78.18	989
35	Lakshadweep	86.66	922

Source: Office of the Registrar General and Census Commissioner, Ministry of Home Affairs, Government of India.

**STATE WISE LITTERACY RATE AND SEX RATIO FOR THE YEAR (2001)**

<b>SL.NO</b>	<b>STATE</b>	<b>LITERACY RATE</b>	<b>SEX RATIO</b>
1	Maharashtra	76.88	922
2	Tamil Nadu	73.45	987
3	Uttar Pradesh	56.27	898
4	Gujarat	69.14	920
5	Karnataka	66.60	965
6	West Bengal	68.64	934
7	Rajasthan	60.41	921
8	Andhra Pradesh	60.47	978
9	Kerala	90.86	1058
10	Madhya Pradesh	63.74	948
11	Delhi	82.01	821
12	Haryana	67.91	861
13	Bihar	47.00	919
14	Punjab	69.65	876
15	Odisha	63.08	972
16	Assam	63.25	935
17	Chhattisgarh	81.94	989
18	Jharkhand	53.56	941
19	Uttarakhand	71.62	962
20	Jammu & Kashmir	55.52	-
21	Himachal Pradesh	76.48	968
22	Goa	82.01	961
23	Tripura	73.19	948
24	Chandigarh	81.94	777
26	Pondicherry	81.24	972
27	Meghalaya	62.56	972
28	Sikkim	68.81	875
29	Nagaland	66.59	900
30	Manipur	70.50	978
31	Arunachal Pradesh	54.34	893
32	Mizoram	88.80	935
33	Andaman and Nicobar	81.30	846
34	Dara& Nagar Haveli	57.63	812
35	Daman& Diu	78.18	989
36	Lakshadweep	86.66	922

Source: Office of the Registrar General and Census Commissioner, Ministry of Home Affairs, Government of India

**STATE WISE SEX RATIO AND LITERACY RATE FOR THE YEAR (2011)**

<b>SL.NO</b>	<b>STATE</b>	<b>LITERACY RATE</b>	<b>SEX RATIO</b>
1	Maharashtra	82.34	929
2	Tamil Nadu	80.09	996
3	Uttar Pradesh	67.68	912
4	Gujarat	78.03	919
5	Karnataka	75.37	973
6	West Bengal	76.26	950
7	Rajasthan	66.11	928
8	Andhra Pradesh	67.02	993
9	Kerala	94.00	1084
10	Madhya Pradesh	69.32	947
11	Delhi	88.70	868
12	Haryana	75.55	879
13	Bihar	61.80	918
14	Punjab	75.84	895
15	Odisha	72.85	979
16	Assam	72.19	958
17	Chhattisgarh	86.05	991
18	Jharkhand	66.41	948
19	Uttarakhand	78.82	963
20	Jammu & Kashmir	67.16	889
21	Himachal Pradesh	82.80	972
22	Goa	88.70	973
23	Tripura	87.22	960
24	Chandigarh	86.05	818
26	Pondicherry	85.85	979
27	Meghalaya	74.43	989
28	Sikkim	81.42	890
29	Nagaland	79.60	931
30	Manipur	76.90	992
31	Arunachal Pradesh	65.39	938
32	Mizoram	91.33	976
33	Andaman and Nicobar	86.63	876
34	Dara& Nagar Haveli	76.24	774
35	Daman& Diu	87.10	991
36	Lakshadweep	91.85	929

Source: Office of The Registrar General and Census Commissioner, Ministry of Home Affairs, Government of India

**INDIA GDP AND UNEMPLOYMENT RATE FOR THE YEAR  
(1991-2021)**

<b>SL.NO</b>	<b>YEAR</b>	<b>GDP</b>	<b>UNEMPLOYMENT RATE</b>
1	1991	1.06	5.55
2	1992	5.48	5.61
3	1993	4.75	5.72
4	1994	6.66	5.75
5	1995	7.57	5.75
6	1996	7.55	5.75
7	1997	4.05	5.74
8	1998	6.18	5.74
9	1999	8.85	5.78
10	2000	3.84	5.75
11	2001	4.82	5.73
12	2002	3.80	5.77
13	2003	7.86	5.77
14	2004	7.92	5.72
15	2005	7.92	5.65
16	2006	8.06	5.52
17	2007	7.66	5.41
18	2008	3.09	5.36
19	2009	7.86	5.61
20	2010	8.50	5.67
21	2011	5.24	5.65
22	2012	5.46	5.66
23	2013	6.39	5.67
24	2014	7.41	5.60
25	2015	8.00	5.56
26	2016	8.26	5.51
27	2017	6.80	5.41
28	2018	6.53	5.33
29	2019	4.09	5.27
30	2020	-7.96	7.11
31	2021	9.2	6.57

Sources: World Bank data Ministry of Statistical and Planning Implementation (MSPI)

**PER CAPITA, GDP UNEMPLOYMENT RATE, FOR THE YEAR (1991-2021)**  
(In percentage) (Per-capital income measured in dollar \$)

<b>SL.NO</b>	<b>YEAR</b>	<b>PER-CAPITA INCOME RATE</b>	<b>GDP</b>	<b>UNEMPLOYMENT RATE</b>
1	1991	303	1.06	5.55
2	1992	317	5.48	5.61
3	1993	301	4.75	5.72
4	1994	346	6.66	5.75
5	1995	374	7.57	5.75
6	1996	400	7.55	5.75
7	1997	415	4.05	5.74
8	1998	413	6.18	5.74
9	1999	442	8.85	5.78
10	2000	443	3.84	5.75
11	2001	452	4.82	5.73
12	2002	471	3.80	5.77
13	2003	547	7.86	5.77
14	2004	628	7.92	5.72
15	2005	715	7.92	5.65
16	2006	807	8.06	5.52
17	2007	1,028	7.66	5.41
18	2008	999	3.09	5.36
19	2009	1,102	7.86	5.61
20	2010	1,358	8.50	5.67
21	2011	1,458	5.24	5.65
22	2012	1,444	5.46	5.66
23	2013	1,450	6.39	5.67
24	2014	1,574	7.41	5.60
25	2015	1,606	8.00	5.56
26	2016	1,733	8.26	5.51
27	2017	1,981	6.80	5.41
28	2018	1,997	6.53	5.33
29	2019	2,101	4.09	5.27
30	2020	1,901	-7.96	7.11

Source: World Bank, (2021).

### INDIA INFLATION RATE FROM (1991 – 2021)

SL. NO	YEAR	INFLATION	GDP	UNEMPLOYMENT RATE
1	1991	13.48	1.06	5.55
2	1992	9.86	5.48	5.61
3	1993	7.28	4.75	5.72
4	1994	10.28	6.66	5.75
5	1995	9.96	7.57	5.75
6	1996	9.43	7.55	5.75
7	1997	6.84	4.05	5.74
8	1998	13.13	6.18	5.74
9	1999	5.7	8.85	5.78
10	2000	3.83	3.84	5.75
11	2001	4.31	4.82	5.73
12	2002	3.98	3.80	5.77
13	2003	3.86	7.86	5.77
14	2004	3.82	7.92	5.72
15	2005	4.4	7.92	5.65
16	2006	6.7	8.06	5.52
17	2007	6.2	7.66	5.41
18	2008	9.09	3.09	5.36
19	2009	12.31	7.86	5.61
20	2010	10.53	8.50	5.67
21	2011	9.5	5.24	5.65
22	2012	10	5.46	5.66
23	2013	9.4	6.39	5.67
24	2014	5.8	7.41	5.60
25	2015	4.9	8.00	5.56
26	2016	4.5	8.26	5.51
27	2017	3.6	6.80	5.41
28	2018	3.43	6.53	5.33
29	2019	4.76	4.09	5.27
30	2020	6.18	-7.96	7.11
31	2021	5.56	9.2	6.57

Sources: World Bank data Ministry of Statistical and Planning Implementation (MSPI)s, Ministry of Statistical and Planning Implementation

### CONSUMER PRICE INDEX FOR THE YEAR (1976 – 2007)

SL.NO	YEAR	CPI
1	1991	136.2
2	1992	140.3
3	1993	144.5
4	1994	148.2
5	1995	152.4
6	1996	156.9
7	1997	160.5
8	1998	163
9	1999	166.6
10	2000	172.2
11	2001	177.1
12	2002	179.9
13	2003	184
14	2004	189.9
15	2005	195.3
16	2006	201.6
17	2007	207.3

Sources: World Bank data(2007)

## COVID -19 UNEMPLOYMENT RATE

(Unemployment rate in percent)

SL.NO	MONTH	UNEMPLOYMENT RATE
1	Dec-21	7.91
2	Nov-21	6.97
3	Oct-21	7.74
4	Sep-21	6.86
5	Aug-21	8.32
6	Jul-21	6.96
7	Jun-21	9.17
8	May-21	11.8
9	Apr-21	7.97
10	Mar-21	6.50
11	Feb-21	6.89
12	Jan-21	6.53
13	Dec-20	9.06
14	Nov-20	6.50
15	Oct-20	7.02
16	Sep-20	6.68
17	Aug-20	8.35
18	Jul -20	7.40
19	Jun-20	10.1
20	May-20	21.7
21	Apr-20	23.52
22	Mar-20	8.57
23	Feb-20	7.76
24	Jan-20	7.22

Sources: Labour Force Survey Report, Ministry of statistical and program implementation PRS.

## AGE WISE UNEMPLOYMENT DUE TO COVID-19

(Job loss and gains in million in percent)

SL.NO	CHARACTERISTICS	JOB LOSS AND GAINS IN MILLION
1	15 to 19 years	-2.3
2	20 to 29 years	-8.9
3	30 to 39 years	-8.7
4	40 to 49 years	4.3
5	50 to 59 years	3.2
6	60 years and older	1.3

Sources: Statista <https://www.Statists.com>