

MIDNAPORE COLLEGE
(AUTONOMOUS)
Affiliated to Vidyasagar University



PROJECT REPORT

for the award of degree of
Bachelor Of Science
in Statistics

SESSION : 2021 - 2024

SUBMITTED BY -

ROLL : MC/UG/S-VI/24
NO. : 1856

REG NO. : 2021-1312 of
2021-2022

PAPER : STAT-DSE-4

TOPIC

ANALYSIS OF 2011 CENSUS DATA OF INDIA
&
PREDICTION OF 2021 & 2031 CENSUS

CERTIFICATE FROM THE INSTITUTE

This is to certify that 6th Semester Student with Roll : MC/UG/S-VI/24 No.: 1856 have satisfactorily completed the Project Report entitled “ANALYSIS OF 2011 CENSUS DATA OF INDIA & PREDICTION OF 2021 & 2031 CENSUS” in partial fulfilment of the requirement for the award of degree of Bachelor of Science in Statistics from Department of Statistics ,Midnapore College (Autonomous), West Bengal during academic year 2021-2024.

Prof. Moumita Roy
HOD of Department Of Statistics
Midnapore College (autonomous)

ACKNOWLEDGEMENT

With colossal pleasure, I am presenting “ANALYSIS OF 2011 CENSUS DATA OF INDIA & PREDICTION OF 2021 & 2031 CENSUS” report as part of the curriculum of ‘Bachelor of Science in Statistics’. I wish to thank all the people who gave me unending support while bringing out this project to its ultimate form.

First and foremost, I would like to express my deep sense of gratitude and gratefulness to my supervisor Prof. Moumita Roy, Head of the Department, Department of Statistics, Midnapore College (Autonomous) for her invaluable encouragement, suggestions and support from an early stage of this project and providing me extraordinary experiences throughout the work.

Finally, I am thankful to the entire faculty members of Department of Statistics, Midnapore College (Autonomous), my friends and my family members for their moral support and constant encouragement while carrying out this project.

Table of Contents

<u>SL. NO.</u>	<u>PARTICULARS</u>	<u>PAGE NO.</u>
01	Summary	01
02	Introduction	
	2.1. About Topic	02
	2.2. Work done in different section	03
03	Model Motivation	05
04	Methodology	06-07
05	Data Analysis	08-12
06	Conclusion	13-14
07	Reference	15
08	Appendix	16

SUMMARY

A census is an official and comprehensive survey conducted to gather detailed information about the population of a country or region. It typically includes data on the number of people, their demographic characteristics, and other pertinent social and economic information.

In this project, the data of 2011 census is used. The analysis of the 2011 census data focuses on understanding the population metrics and preparing to predict future trends for the years 2021 and 2031.

In this project, the total population from census of 1951 to 2011 is used. The analysis of the total population data from the census years 1951 to 2011 provides valuable insights into the demographic changes and trends over six decades. This outlines the key findings and trends observed in the population data during this period which includes growth trends in every aspects, decadal growth rate, sex ratio (number of females per 1000 males) fluctuated over the years, improvement in literacy rates over the period.

This project focuses on predicting future population metrics for the years 2021 and 2031 based on historical census data from 1981 to 2011. The project utilizes linear regression models to forecast these values and employs ANOVA (Analysis of Variance) to assess the significance of the models.

INTRODUCTION

2.1. About the Topic :

Census data serves as a foundational pillar in understanding the demographic landscape of a country or region. Through comprehensive surveys conducted periodically, census data provides invaluable insights into population size, growth trends, socio-economic characteristics, and geographical distribution over time. This project focuses on analyzing census data spanning from 1951 to 2011, with a particular emphasis on examining the evolution of total population dynamics.

The census in India dates back to the British colonial era, with the first modern census conducted in 1871. Since then, it has evolved significantly in terms of scope, methodology, and technology.

After India gained independence in 1947, the analysis of census data took on increased significance as the country embarked on its journey of nation-building, socio-economic development, and policy formulation.

The Registrar General and Census Commissioner of India, under the Ministry of Home Affairs, became the central authority responsible for conducting and overseeing the census operations. This institutional framework ensured continuity and standardized procedures in data collection across the country.

Studies highlight demographic shifts such as population growth rates, age structure, working population changes over decades. For instance, India's population growth has influenced policy decisions and development strategies.

Census data provides insights into socio-economic indicators like literacy rates, educational attainment, employment patterns, household amenities, and income distribution. Such data helps in understanding disparities across different social groups.

The census provides data on literacy rates, explores the impact of education policies and interventions on literacy rates and educational outcomes.

2.2. Workdone in different section :

Understanding demographic shifts and trends over decades is crucial for policymakers, researchers, and economists alike. It helps in formulating informed decisions related to resource allocation, infrastructure development, social welfare programs, and sustainable urban planning.

We have divided this report into six different sections namely ,

Model Motivation : Model motivation in the context of data analysis refers to the purpose behind choosing a particular analytical approach, statistical model to solve a problem.

Methodology: This section details the steps and processes involved in developing and implementing the model. The steps include Data Collection, Model Development, Testing, Parameter Tuning, Implementation.

Data Analysis: This section presents the analysis of the data used and the results obtained from the model. It describes the initial examination of the data, including summary statistics, visualizations, and identification of pattern. It also includes Model Performance, Comparative Analysis, Error Analysis.

Conclusion: This section summarizes the key findings and implications of the project. It recaps the main findings from the data analysis and model performance. Here the decision of testing is done to analyse the significances.

After successfully predicting data for 2021 and 2031, several avenues can be explored to further enhance the project and extend its applicability. By pursuing these future work directions, the project can evolve to provide even more accurate, reliable, and actionable insights, ultimately contributing to better decision-making and planning for the future.

Reference: This section lists all the sources cited in the report. Citations include all books, articles, websites, and other sources referenced in the project.

Appendix: This section contains supplementary material that includes any code, provides any tables that support the analysis, include raw data or data samples.

MODEL MOTIVATION

Model motivation in the context of data analysis refers to the purpose behind choosing a particular analytical approach, statistical model to solve a problem. Here are key aspects to consider when discussing model motivation:

1. Problem Understanding : here, we are predicting population growth based on historical census data.
2. Data Characteristics: It describes the characteristics of the dataset, including its size, structure, variables. It justify why the selected model or approach is appropriate given the data's characteristics
3. Model Selection Criteria: It discuss the assumptions underlying the chosen model and how they align with the nature of the data.
4. Performance Evaluation and Validation : It define the evaluation metrics used to assess the model's performance.
5. Practical Applications and Implications: It discuss how the model results contribute to addressing the original research question or solving the problem.

In this study, we aim to predict future population trends using historical census data from 1951 to 2011. Given the continuous nature of population data and the need to understand linear relationships over time, we chose to employ a linear regression model. This model is well-suited to capture the gradual changes in population size and demographic shifts observed in the dataset.

By regression analysis, we seek to provide policymakers with insights into population growth patterns, which can inform urban planning, resource allocation, and social welfare policies. This approach also helps stakeholders understand how the model aligns with the project's objectives and contributes to knowledge advancement or practical applications.

METHODOLOGY

The methodology provides a systematic approach to analyzing census data from 2011 for different states and UTs in India. By employing statistical techniques and interactive visualizations, this analysis aims to uncover demographic trends and socio-economic patterns, offering valuable insights for policy-making and further research.

The dataset is segmented into different states and union territories (UTs) of India for detailed analysis. Preprocessing steps include selecting relevant columns (from 4 to 118) and organizing data by state for further analysis.

Calculated the total population for each state and UT by summing up the relevant columns.

Computed the sex ratio for India and visualized it using a pie chart to show the proportion of males and females.

Calculated the overall literacy rate and presented it through a pie chart to depict the percentage of literate and illiterate individuals

Explored the distribution of working population categories (main workers, marginal workers, non-workers, etc.) across India using pie charts.

For Analyzing Total Population Data of India (1951-2011) we have collected the total population data from each of the census from 1951 to 2011. Then a combination of line and scatter plots is created to visualize the trend of total population over the years.

After predicting of 2021 and 2031 , a combination of line and scatter plots is created to visualize the trend of total population over the years.

Line Plot: Represents the trend of the total population over the years.

Scatter Plot: Highlights the population data points for each census year.

Multiple bar diagram : A multiple bar graph shows the relationship between different values of data.

Box plot: Box plots are helpful for visualizing the distribution of a numerical variable and identifying outliers.

Pie chart : Pie charts can be used to show the proportion of each category in a categorical variable

On predicting future population for the years 2021 and 2031 based on historical census data from 2001 and 2011, the project utilizes linear regression models to forecast these values and employs ANOVA (Analysis of Variance) to assess the significance of the models.

- The census data is loaded from population metrics for the years 1981 and 2011.
- Relevant variables, including total population, male and female population, male and female literate population, total workers, and non-workers, are extracted for analysis.
- Linear regression models are fitted to the data to predict each population metric based on the year.
- Separate models are created for each metric: total population, male population, female population, male literate population, female literate population, total workers, and non-workers.
- Using the fitted linear models, predictions for the years 2021 are generated.
- ANOVA is used to compare the variance within groups defined by the year, providing a statistical significance test for the models.
- The summary of ANOVA results helps determine if the year is a significant predictor for each population.
- If the p-values in the ANOVA results are below 0.05, it indicates that the year is a significant predictor for the respective population metric. This means the model is likely to provide reliable predictions.
- The census data is loaded from population metrics for the years 2001 to 2021 to predict the population of 2031 in same process.

For Analyzing Total Population Data of India (2001-2021) we have collected the total population of three decades and visualized by bar plot.

Computed the sex ratio for India and visualized it using a pie chart to show the proportion of males and females are literate among total.

Explored the distribution of working population and Non Working population of the three years and analysed through bar plot.

For Analyzing Total Population Data of India (2001-2031) we have collected the total population of four decades and visualized by bar plot.

Computed the sex ratio for India and visualized it using a multiple bar plots to show the males and females population in these four years .

DATA ANALYSIS

2011 CENSUS DATA ANALYSIS :

For analysis of 2011 data we have used R programming . We have first shorted the data and used the significant code to get the desire results.

5.1. Code in R :

```
install.packages("plotly")

library(plotly)

cen<-read.csv(file="C:\\Users\\ Desktop\\PROJECT\\india-districtscensus-2011.csv")

censu=data.frame(wb1,asm1,meg1,trp1,man1,nld1,arp1,sik1,bih1,up1,raj1,del1,hryn1,utk1,chg1,pjb1,hp1,jk1,j
kd1,ors1,chth1,and1,pon1,tn1,lak1,ker1,goa1,ktka1,ap1,mhr1,dd1,guj1,mp1)

cens1=as.data.frame(t(censu))

st_name=c("West Bengal","Assam","Meghalaya","Tripura","Manipur","Nagaland","Arunachal
Pradesh","Sikkim","Bihar","Uttar
Pradesh","Rajasthan","Delhi","Haryana","Utharkhand","Chandigarh","Punjab","Himachal Pradesh","Jammu &
Kashmir","Jharkhand","Orissa","Chatthisgarh","Andaman","POndicherry","Tamil
Nadu","Laksh","Kerala","Goa","Karnataka","Andhra Pradesh","Maharashtra","DAman&Diu","Gujarat","Madhya
Pradesh")

#male+female pop

pop=censu[1,1:33]

mal=censu[2,1:33]

fem=censu[3,1:33]

z1=(mal/pop)*100

z2=(fem/pop)*100

ln_states=st_name

zn=unlist(z1)

am=unlist(z2)

dat=data.frame(st_name,zn,am)

dat

p=plot_ly(dat, x = ~ln_states, y = ~zn, type = 'bar', name = 'MALE',text=zn,textposition='auto') %>%

  add_trace(y = ~am, name = 'FEMALE') %>%

  layout(title="TOTAL POPULATION",xaxis = list(title = "STATES and UT"),yaxis = list(title = "PERCENTAGE"),
barmode = 'group')

p

q=plot_ly(dat, x = ~ln_states, y = ~zn, type = 'bar', name = 'MALE',text=zn,textposition='auto') %>%
```

```
add_trace(y = ~am, name = 'FEMALE') %>%
```

```
layout(title="TOTAL POPULATION",xaxis = list(title = "STATES and UT"),yaxis = list(title = "PERCENTAGE"),
barmode = 'stack')
```

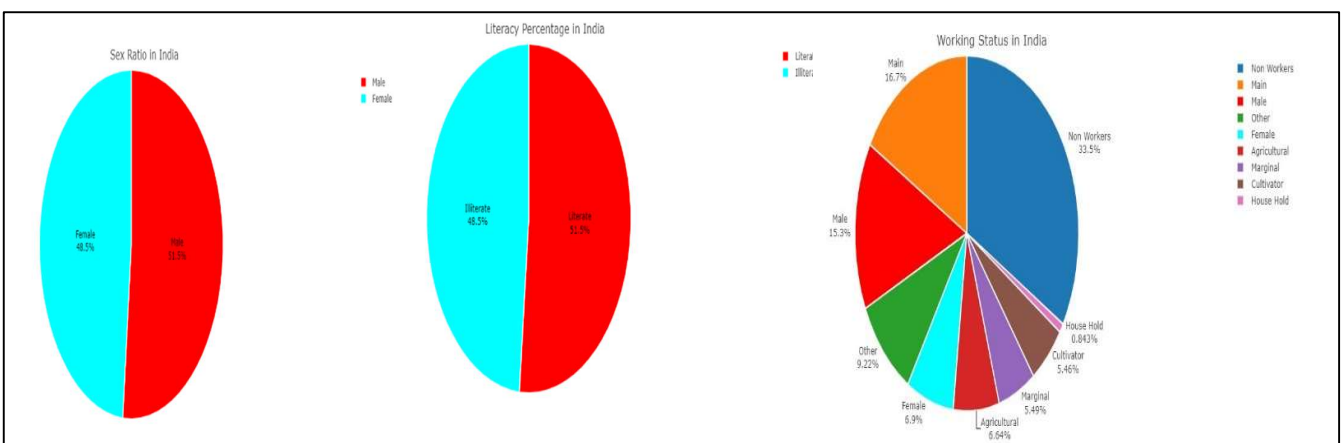
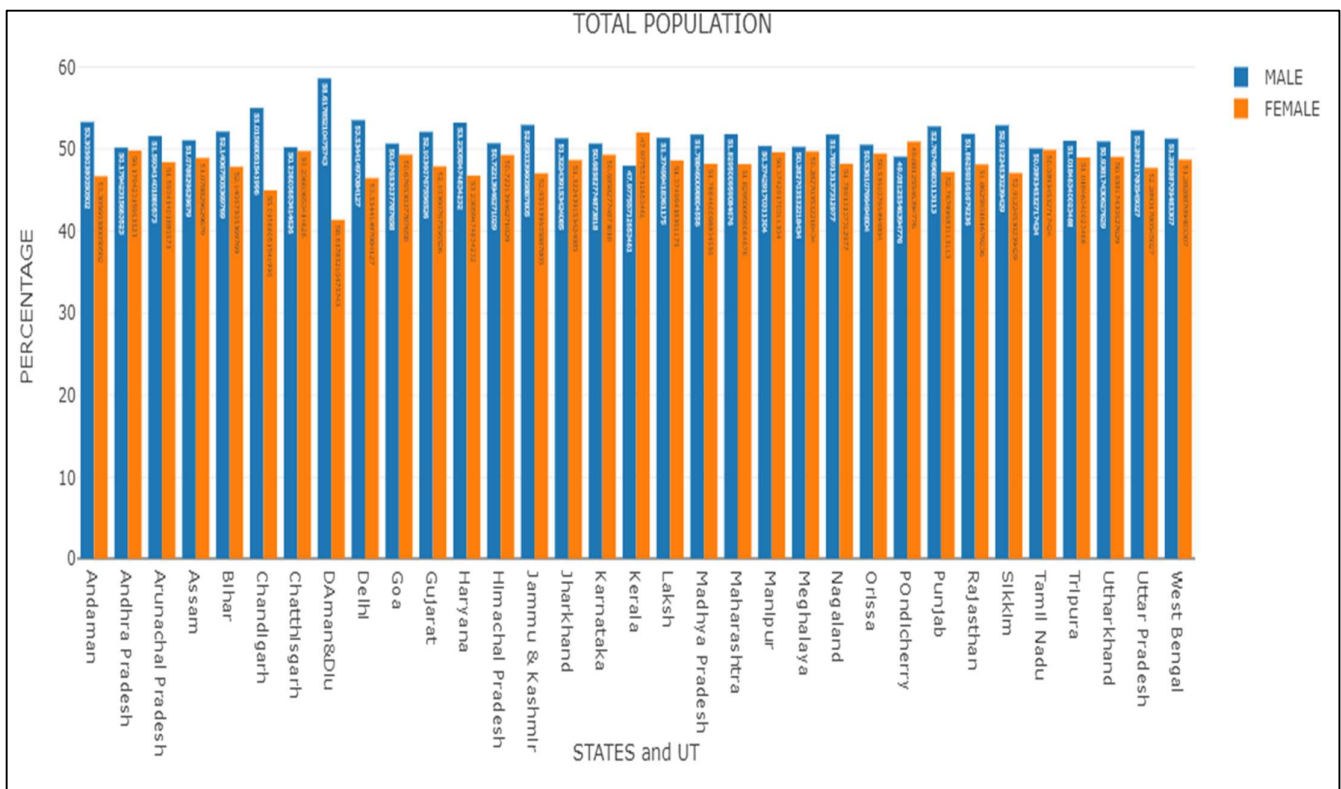
```
q
```

```
newpop1=rbind(z1,z2)
```

```
newpop=matrix(unlist(newpop1),2,15)
```

```
barplot(newpop,names.arg = st_name[1:15],main = "Male : Female Population",xlab = "States",ylab = "% of
Total Population",legend.text=c("male","female"),col=c("orange","blue"),space = 1)
```

Similarly using the same code transcript we have made the same for other variables as such Male Population , Female Population, Literate Male, Literate Female, Worker and Non-Worker Population for year 2011.



GRAPHICAL REPRRSENTATION OF CENSUS DATA FROM 1951 – 2011

5.2 Code in R:

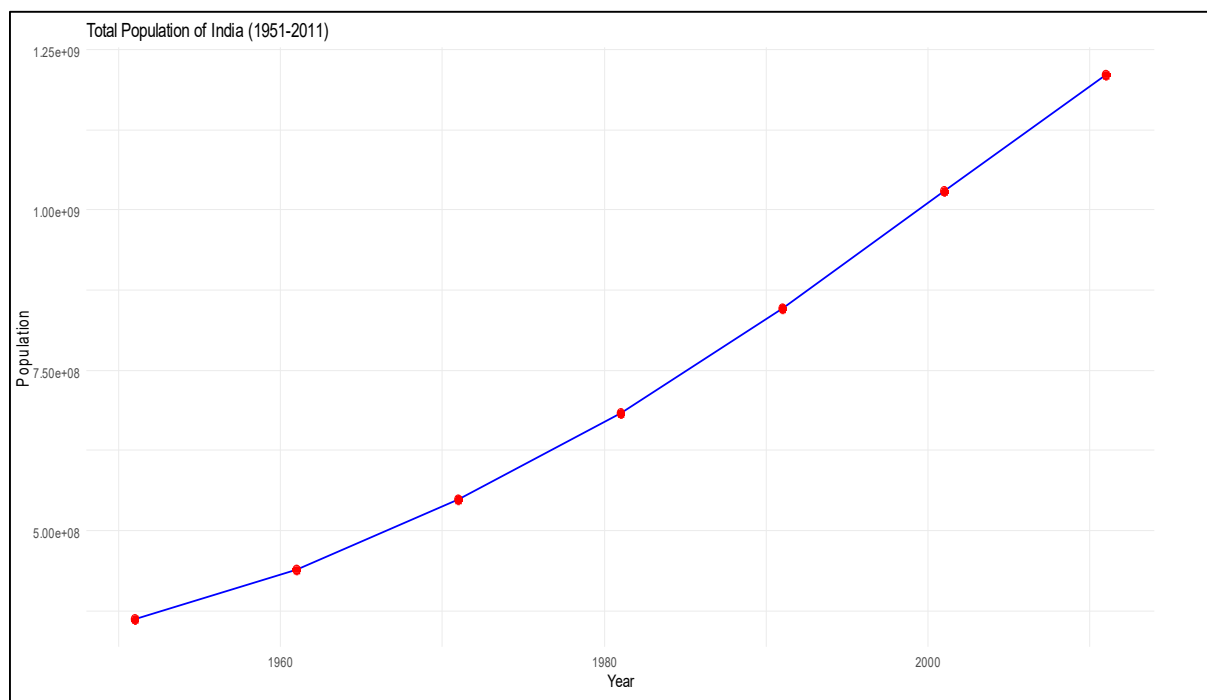
```
cen <- read.csv(file = "C:\\Users\\ Desktop\\PROJECT\\1951-2011.csv")

> cen

  YEAR TOT_POPLN
1 1951 361088090
2 1961 439234771
3 1971 548159652
4 1981 683329097
5 1991 846387888
6 2001 1028610328
7 2011 1210854977

> library(ggplot2)

> ggplot(data = cen, aes(x = YEAR, y = TOT_POPLN)) +
+   geom_line(color = "blue", linewidth = 1) +   # Line plot (use linewidth instead of size for lines)
+   geom_point(color = "red", size = 3) +        # Points at each data point
+   labs(title = "Total Population of India (1951-2011)",
+    x = "Year",
+    y = "Population") +
+   theme_minimal()
```



PREDICTION OF 2021 & 2031 CENSUS :

We first used to calculate the predicted value of 2021 and make ANOVA TABLE using R .

For Total Population:

H₀ (null hypothesis) : The total population is the same for all years.

H₁ (alternative hypothesis) : The total population is not the same for all years.

5.3 Code in R:

```
> cen <- read.csv(file = "C:\\Users\\ Desktop\\PROJECT\\year.csv")
> cen

  Year Population   Males Females Male.Literate Female.Literate
1 1981 683329097 351490435 331838662   151072536   103283000
2 1991 846387888 437115724 409272164   204640000   147623000
3 2001 1028610328 532223090 496287238   336533716   224154081
4 2011 1210854977 623121843 586469174   444203762   334250358

  Total.Workers Non.Workers
1   261465202  421863895
2   329942776  516445112
3   402234724  626375604
4   481743311  728886775

> # linear regression models
> model_population <- lm(Population ~ Year, data = cen)
> # ANOVA
> anova_population <- aov(Population ~ Year, data = cen)
> # Predictions for Population
> predicted_population <- predict(model_population, newdata = new_data)
> predicted_population

  1
1383495593

#ANOVA Summary for Total Population:
```

```
> print(summary(anova_population))
```

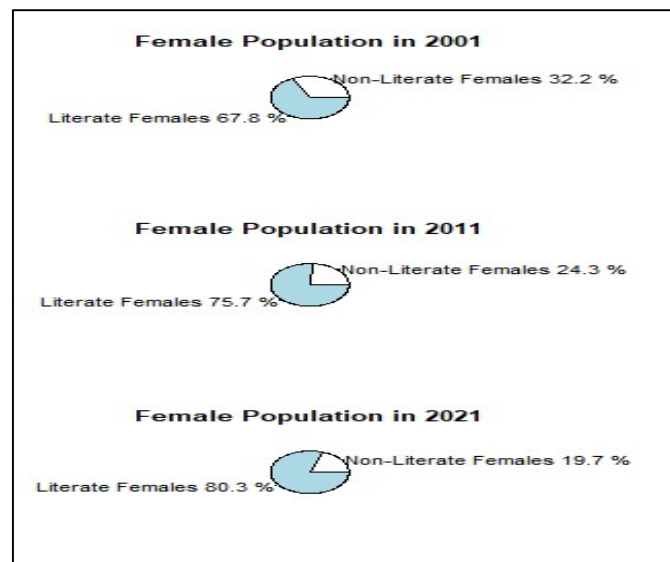
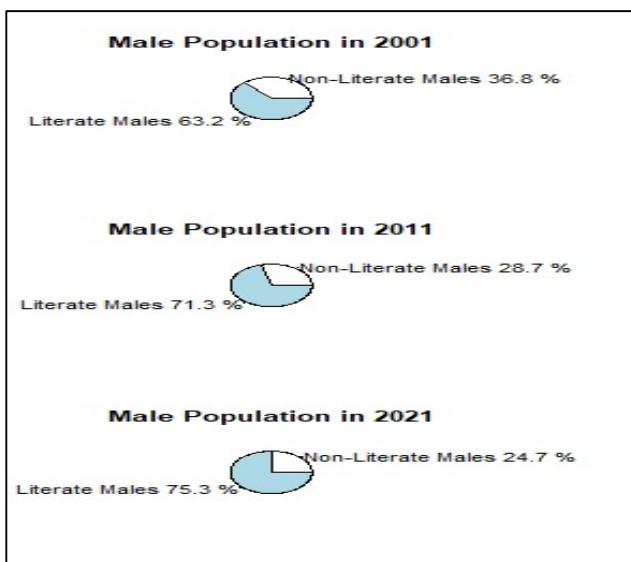
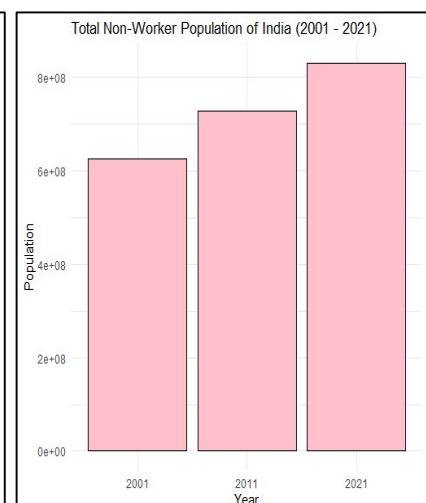
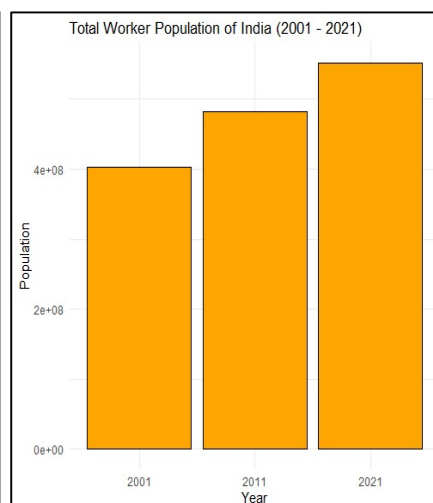
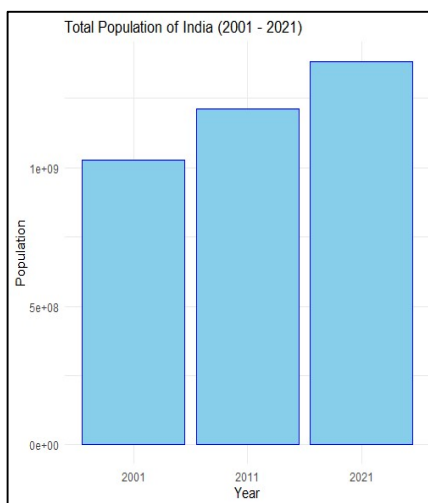
```
      Df Sum Sq Mean Sq F value Pr(>F)
Year    1 1.557e+17 1.557e+17  2823 0.000354 ***
Residuals  2 1.103e+14 5.517e+13
```

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Similarly we have calculated the predicted value for other variables as such Male Population , Female Population, Literate Male, Literate Female, Worker and Non-Worker Population for year 2021.

Then ANOVA TABLE is used to check whether to accept or reject our null hypothesis.

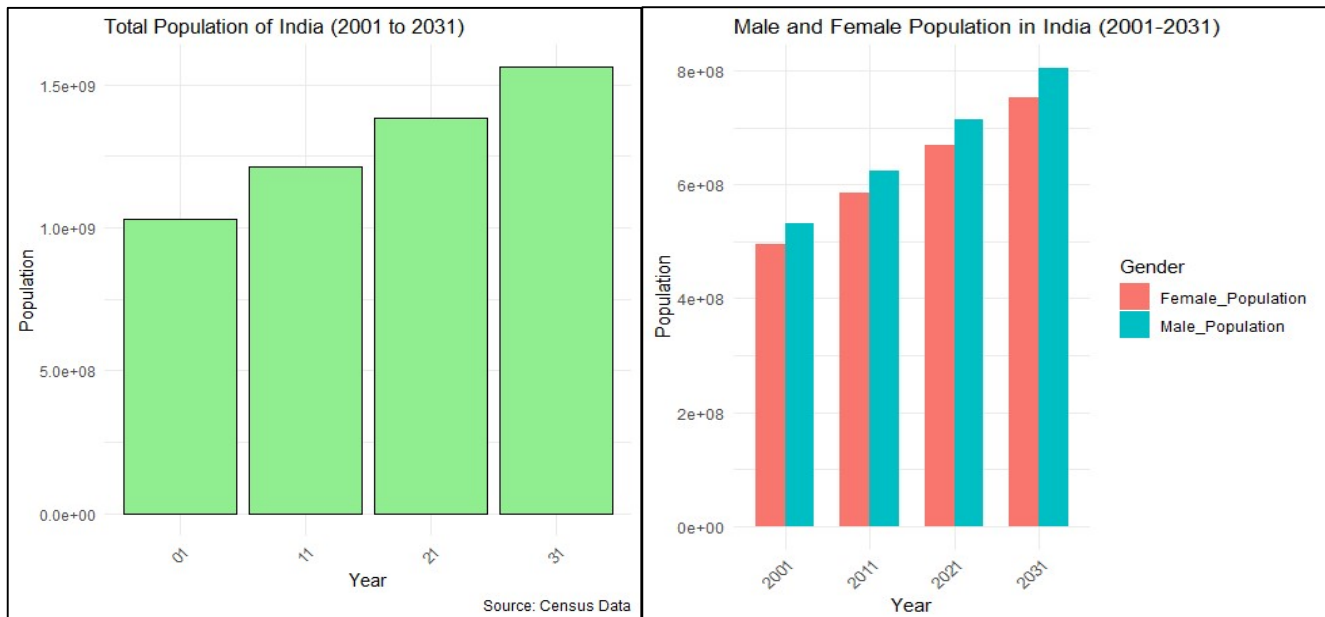
Some Graphical representation of data analysis from 2001 to 2021 is given below:



For prediction of 2031 we have used same code used in [5.3 Code](#) in R using the source as

```
cen <- read.csv(file = "C:\\Users\\ Desktop\\PROJECT\\2001-2021.csv")
```

Here is some Graphical representation of data analysis from 2001 to 2021 is given below :



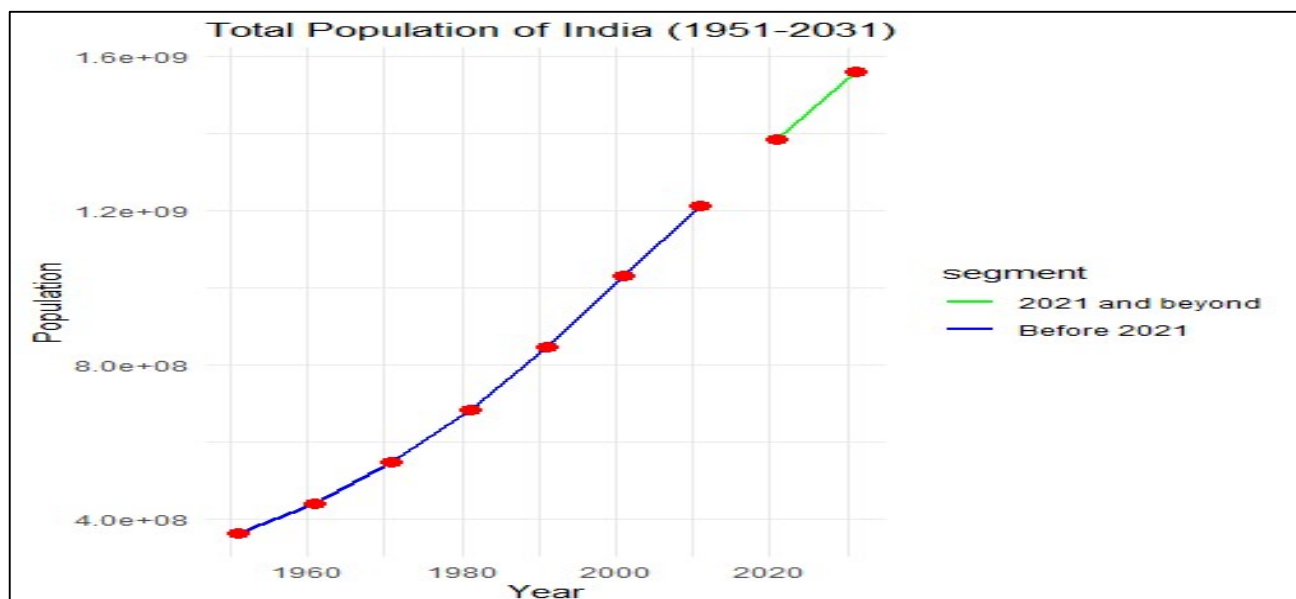
For graphical representation of overall census data from 1951 – 2031 we have used the same code of [5.2 Code in R](#) only the csv file is named as

```
cen <- read.csv(file = "C:\\Users\\ Desktop\\PROJECT\\1951-2031.csv")
```

and made a new segment

```
cen$segment <- ifelse(cen$YEAR >= 2021, "2021 and beyond", "Before 2021")
```

and the result is given below :



CONCLUSION

- From the Graphically Plotted data of 2011 , we can say that 51.5% of the total population are male and 48.5% of the total population are female.
- From the Graphically Plotted data of 2011 , we can see that 33.5% of the total population are non workers whereas others are working as marginal and main workers.
- In Statewise Comparison, the different states have various population but there population has been increased from the last census data .
- Uttar Pradesh is the largest populated state and Sikkim is the least populated state according to Census 2011.
- From the line and scatter plot of analysis of census data from 1951 – 2011, we can say that there is a Trend of increase in the population over 10 years of the census survey and this may continue as well as will have an affect of the year of 2021 and 2031.
- After prediction of 2021,from graphical representations from 2001-2021, we can conclude that the Total Population ,working and non working population of 2021 is increased significantly from 2001 and 2011.
- The pie chart shows the Male Literacy from total male population in various year. The male literacy percentage in 2001 is 63.2%, in 2011 is 71.3%,in 2021 is 75.3%, which denotes there is an increment of literacy male population with increase in population.
- The pie chart shows the Female Literacy from total Female population in various year. The male literacy percentage in 2001 is 67.8%, in 2011 is 75.7%,in 2021 is 80.3%, which denotes there is an increment of literacy female population with increase in population.
- After prediction of 2031,from graphical representations from 2001-2031, we can conclude that the Total Population ,working and non working population of 2031 is increased significantly from 2001 ,2011,2021. The male and female population is also increased significantly.
- From the line and scatter plot of analysis of census data from 1951 – 2031, we can say that there is a Trend of increase in the population over 10 years of the census survey. The predicted data also shows in exponential increment.
- **Interpreting F-value and p-value from ANOVA TABLE:**
F-value: Measures how much the group means differ relative to the variability within the groups. A higher F-value indicates a more significant difference.
p-value: Determines the significance of the results. A lower p-value (< 0.05) suggests that the results are statistically significant.

- From prediction of 2021, we get the ANOVA TABLE with F and p – values. For example : For **Total Population: F-value: 2823 , p-value: 0.000354** (significant at 0.001). Which concludes that the year significantly affects the total population, with a very high F-value indicating strong evidence against the null hypothesis.
- From prediction of 2031, we get the ANOVA TABLE with F and p – values. For example : For **Total Population: F-value: 4096, p-value: 0.00995** (significant at 0.001). Which concludes that the year significantly affects the total population, with a very high F-value indicating strong evidence against the null hypothesis. For each dependent variable considered :

Null Hypothesis (H_0): The dependent variable is the same for all years.

Alternative Hypothesis (H_1): The dependent variable is different for at least one year.

Since all p-values in ANOVA results are significantly less than 0.05 and F values are higher significantly , reject the null hypothesis for each dependent variable, indicating that the year has a significant effect on population, male population, female population, male literate population, female literate population, total workers, and non-workers of year 2021 as well as 2031 and hence conclude that The mean of the dependent variable is different for at least one year.

- **From the prediction of 2021 , we get**

Population in 2021: 1,383,495,593

Male Population in 2021: 713,488,171

Female Population in 2021: 668,693,462

Male Literate Population in 2021: 536,934,352

Female Literate Population in 2021: 394,685,899

Total Workers in 2021: 552,128,072

Non-Workers in 2021: 831,142,630

- **From the prediction of 2031 , we get**

Population in 2031: 1,559,975,601

Male Population in 2031: 804,488,330

Female Population in 2031: 753,784,123

Male Literate Population in 2031: 638,063,091

Female Literate Population in 2031: 471,629,214

Total Workers in 2031: 625,440,700

Non-Workers in 2031: 934,242,543

SCOPES

Scope of this project about predicts census data for 2021 and 2031, offering insights into demographic trends, population growth, and socio-economic changes. The model can inform policy-making, urban planning, resource allocation, and economic forecasting by providing accurate, data-driven projections.

Future Work

- **Model Enhancement:** Future work can involve refining the model using advanced algorithms and incorporating real-time data to improve accuracy.
- **Extended Analysis:** Researchers can explore scenario planning, sensitivity analysis, and integration of additional data sources like economic indicators and environmental factors to enrich predictions.
- **Applications Development:** Developing user-friendly tools and dashboards to make predictions accessible to policymakers and stakeholders, aiding in informed decision-making.

REFERENCE

- <https://www.kaggle.com/datasets/danofer/india-census>
- <http://censusindia.gov.in/2011-Common/CensusData2011.html>
- <https://censusindia.gov.in>
- <https://censusindia.gov.in/census.website/data/census-tables>
- <https://www.google.co.in/>
- [Fundamentals-of-mathematical-statistics book](#) by [Gupta SC, Kapoor V.K.](#)

APPENDIX

A	B	C	D	E	F	G	H	I	J	K	L
State	Persons	Males	Females	Persons..literate	Males..Literate	Females..Literate	Total..workers	Main..workers	Marginal..workers	Non..workers	
1 AN	274984	148010	126974	215598	121191	94407	113956	94872	19084	161028	
2 Andhra	8.5E+07	4.2E+07	4.2E+07	50556760	28251243	22305517	39422906	33037378	6385528	45157871	
3 Arunachal	1383727	713912	669815	766005	439868	326137	587657	478721	108936	796070	
4 Assam	3.1E+07	1.6E+07	1.5E+07	19177977	10568639	8609338	11969690	8687123	3282567	19235886	
5 Bihar	1E+08	5.4E+07	5E+07	52504553	31608023	20896530	34724987	21359611	13365376	69374465	
6 CHANDIG	2.7E+07	1.3E+07	1.3E+07	16185360	9273239	6912121	12584361	8627643	3956718	14016287	
7 DADRA A	343709	193760	149949	223230	142521	80709	157161	130299	26862	186548	
8 DAMAN A	243247	150301	92946	188406	124643	63763	121271	116435	4836	121976	
9 Delhi	1.7E+07	8987326	7800615	12737767	7194856	5542911	5587049	5307329	279720	11200892	
10 Goa	1458545	739140	719405	1165487	615823	549664	577248	476053	101195	881297	
12 Gujarat	6E+07	3.1E+07	2.9E+07	41093358	23474873	17618485	24767747	20365374	4402373	35671945	
13 Haryana	2.5E+07	1.3E+07	1.2E+07	16598988	9794067	6804921	8916508	7015283	1901225	16434954	
14 HIMACHA	3.5E+08	1.8E+08	1.7E+08	211413489	121608986	89804503	139530541	105696121	33834420	213239219	
15 JAMMU A	1.3E+07	6640662	5900640	7067233	4264671	2802562	4322713	2644149	1678564	8218589	
16 JHARKHA	3.3E+07	1.7E+07	1.6E+07	18328069	10882519	7445550	13098274	6818595	6279679	19889860	
17 KARNATA	6.1E+07	3.1E+07	3E+07	40647322	22508471	18138851	27872597	23397181	4475416	33222700	
18 KERALA	3.3E+07	1.6E+07	1.7E+07	28135824	13704903	14430921	11619063	9329747	2289316	21786998	
19 LAKSHAD	64473	33123	31350	52553	28023	24530	18753	10804	7949	45720	
20 MADHYA	7.3E+07	3.8E+07	3.5E+07	42851169	25174328	17676841	31574133	22702119	8872014	41052676	
21 MAHARA	1.1E+08	5.8E+07	5.4E+07	81554290	45257584	36296706	49427878	43762890	5664988	62946455	
22 MANIPUR	2855794	1438586	1417208	1908476	1039858	868618	1304610	974163	830447	1551184	
23 MEGHALA	2966889	1491832	1475057	1785005	913879	871126	1185619	921575	264044	1781270	
24 MIZORAM	1097206	555339	541867	848175	438529	409646	486705	415030	71675	610501	
25 NAGALAN	1978502	1024649	953853	1342434	723957	618477	974122	741179	232943	1004380	
26 ORISSA	4.2E+07	2.1E+07	2.1E+07	26742595	15089681	11652914	17541589	10707543	6834046	24432629	
27 PONDICHI	1247953	612511	635442	957309	497378	459931	444968	399689	45279	802985	
28 PUNJAB	2.8E+07	1.5E+07	1.3E+07	18707137	10436056	8271081	9897362	8450936	1446426	17845976	
29 RAJASTHA	6.9E+07	3.6E+07	3.3E+07	38275282	23688412	14586870	29886256	21057968	8828287	38662182	
30 SIKKIM	610577	323070	287507	444952	251269	193683	308138	230397	7741	802439	
31 TAMIL NA	7.2E+07	3.6E+07	3.6E+07	51837507	28040491	23797016	32884681	27942181	4942500	39262349	
32 TRIPURA	3673917	1874376	1799541	2804783	1501369	1303414	1469521	1077019	392502	2204396	
33 UTTAR PR	2E+08	1E+08	9.5E+07	114397555	68234964	46162591	65814715	44635492	21179223	133997626	
34 UTTARAKH	1E+07	5137773	4948519	6880953	3863708	3017245	3872275	2870624	1001651	6214017	
35 WEST BEN	9.1E+07	4.7E+07	4.4E+07	61538281	33818810	27719471	34756355	25686630	9069725	56519760	
36											
37											

2011

A	B	C	D	E	F	G	H	I
STATES	1951	1961	1971	1981	1991	2001	2011	
1 AndhraPradesh	31115	35983	43503	53551	66508	76210	84581	
2 ArunachalPradesh	NA	337	468	632	865	1098	1384	
3 Assam	8029	10837	14625	18041	22414	26656	31206	
4 Bihar	29085	34841	42126	52303	64531	82999	104099	
5 Chhattisgarh	7457	9154	11637	14010	17615	20834	25545	
6 Gujarat	16263	20633	26697	34086	41310	50671	60440	
7 Haryana	5674	7591	10036	12922	16464	21145	25351	
8 HimachalPradesh	2386	2812	3460	4281	5171	6078	6865	
9 Jammu& Kashmir	3254	3561	4617	5987	7837	10144	12541	
10 Jharkhand	9697	11606	14227	17612	21844	26946	32988	
11 Karnataka	19402	23587	29299	37136	44977	52851	61095	
12 Kerala	13549	16904	21347	25454	29099	31841	33406	
13 MadhyaPradesh	18615	23218	30017	38169	48566	60348	72627	
14 Maharashtra	32003	39554	50412	62783	78937	96879	112374	
15 Manipur	578	780	1073	1421	1837	2294	2856	
16 Meghalaya	606	769	1012	1336	1775	2319	2967	
17 Mizoram	196	266	332	494	690	889	1097	
18 Nagaland	213	369	516	775	1210	1990	1979	
19 Odisha	14646	17549	21945	26370	31660	36805	41974	
20 Punjab	9161	11135	13551	16789	20282	24359	27743	
21 Rajasthan	15971	20156	25766	34262	44006	56507	68548	
22 Sikkim	138	162	210	316	406	541	611	
23 TamilNadu	30119	33687	41199	48408	55859	62406	72147	
24 Tripura	639	1142	1556	2053	2757	3199	3674	
25 Uttar Pradesh	60274	70144	83849	105137	132062	166198	199812	
26 Uttarakhand	2946	3611	4493	5726	7051	8489	10086	
27 West Bengal	26300	34926	44312	54581	68078	80176	91276	
28 A&Nislands	31	64	115	189	281	356	381	
29 Chandigarh	24	120	257	452	642	901	1055	
30 D&NHaveli	42	58	74	104	138	220	344	
31 Daman&Diu	49	37	63	79	102	158	243	
32 Delhi	1744	2659	4066	6220	9421	13851	16788	
33 Goa	547	590	795	1008	1170	1348	1459	
34 Lakshadweep	21	24	32	40	52	61	64	
35 Puducherry	317	369	472	604	808	974	1248	
36 All India	361088	439235	548160	683329	846421	1028737	1210855	
37								
38								
39								

Sheet1

- <https://www.kaggle.com/datasets/danofer/india-census>
- <https://censusindia.gov.in>
- https://drive.google.com/drive/folders/1HFAFjX7Yv-Slz0W0ekL_H0HFtLWJOsh