Crime Analysis Report (Group-5)

Overview

Crime is a legally forbidden and intentional action, which has a harmful impact on social interests, which has a criminal intent and has legally prescribed punishment for it. Crime is legally forbidden, It is not intentional, It is harmful to the victim and the society, It has criminal intent and some penalty is prescribed for it. In this report we analysed the following 9 major questions and relations to address following question

- What is the major reason people being kidnapped in each and every state?
- Offenders relation to the rape victim
- Juvenile's family background, education and economic setup.
- Which state has more crime against children and women?
- Age group wise murder victim
- Crime by place of occurrence.
- Anti-corruption cases vs arrests.
- Which state has more number of complaints against police?
- Which state is the safest for foreigners?

Data and Model

We used the Indian government crime data 2001-2013 available on kaggle.com also to get clear understanding on offender's relationship to the rape victim we include the offenders relationship data form ncrb.gov.in in our data base. For analysing the crime rate change against the population of particular state we include Indian population data form reserve bank of India's published population data. We also include region column in our data base in which all Indian states are grouped on basis of 6 cultural zones of India to analysed relation between IPC and SSL crime for different zone

Data Cleaning

Dataset was majorly cleaned using excel followed by SQL lite beginning with EXCEL, Regions (zones) were added corresponding to their respective states divided on geographical basis i.e. (North , South , East, West, Central and North East).

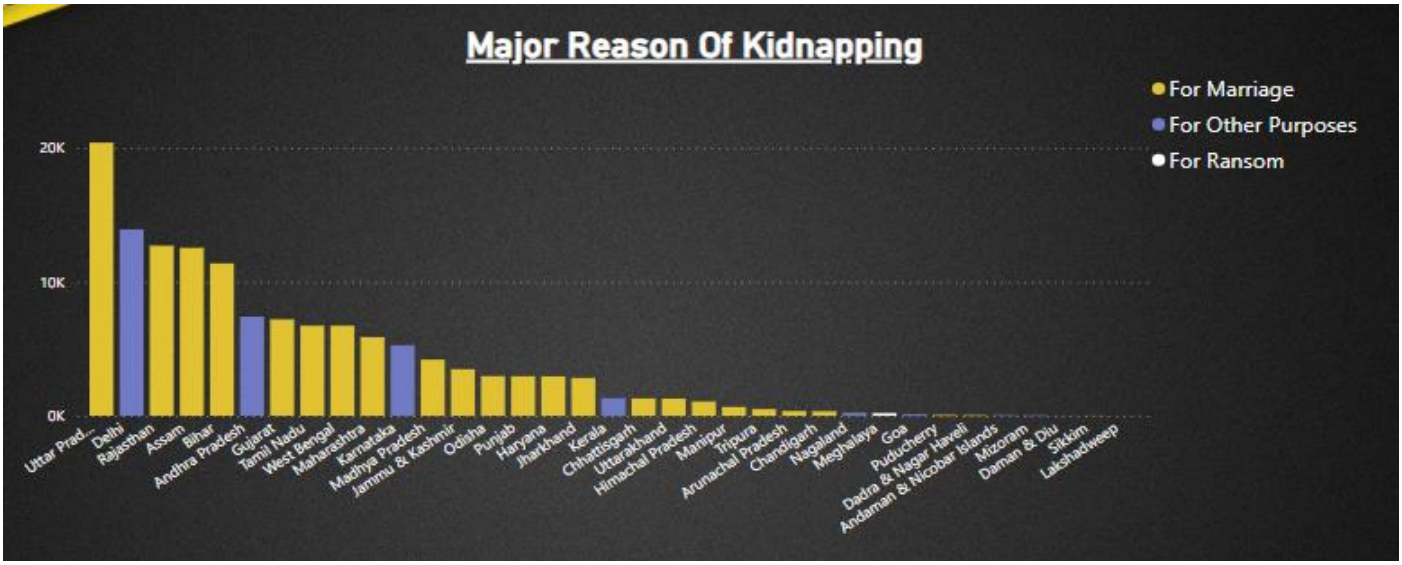
This was implemented so as to make the visualization more efficient and not clumsy and there by showing more information in a better way.

Some datasets were appended in excel as it were gathered from different source to use their information more effectively.

Column Headers and Row names were changed in SQLlite in way to mould it with SQL so as to write the queries in uncomplicated way which led to avoid errors which particularly caused because of the respective.

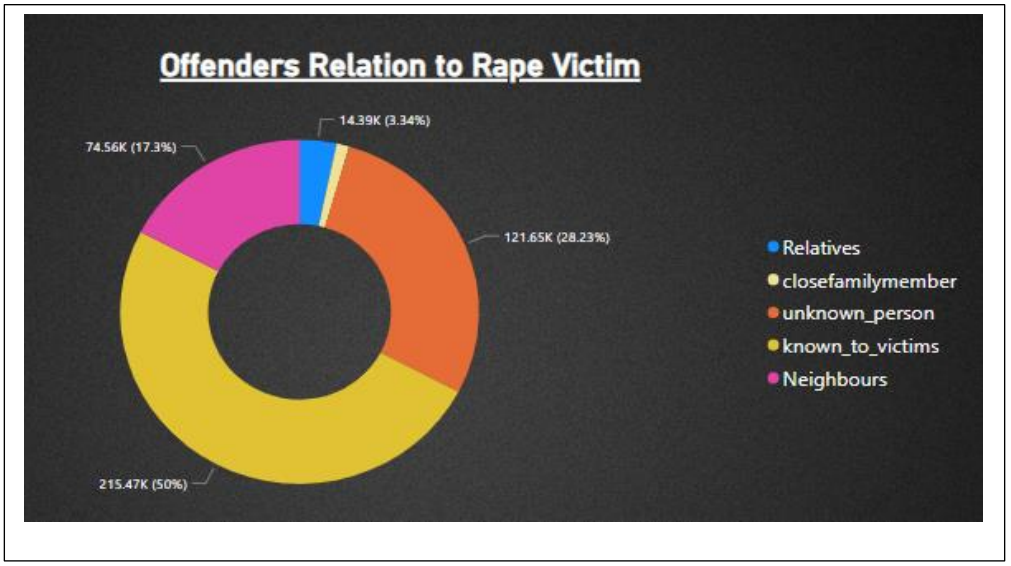
1. What is the major reason people being kidnapped in each and every state?

```
SELECT mainq.Area_Name  , substr(mainq.Sub_Group_Name,4,15) as Sub_Group,(mainq.Grand_Total)
FROM (Select DISTINCT (Area_Name) , (Sub_Group_Name) , sum (K_A_Grand_Total) as Grand_Total
FROM Specific_Reason_Of_Kidnapping
WHERE Sub_Group_Name NOT like '%Total%'
GROUP by Area_Name, Sub_Group_Name  order by sum (K_A_Grand_Total) DESC ) as  mainq
where Area_Name is NOT NULL
GROUP by mainq.Area_Name order BY mainq.Grand_total DESC ;
```



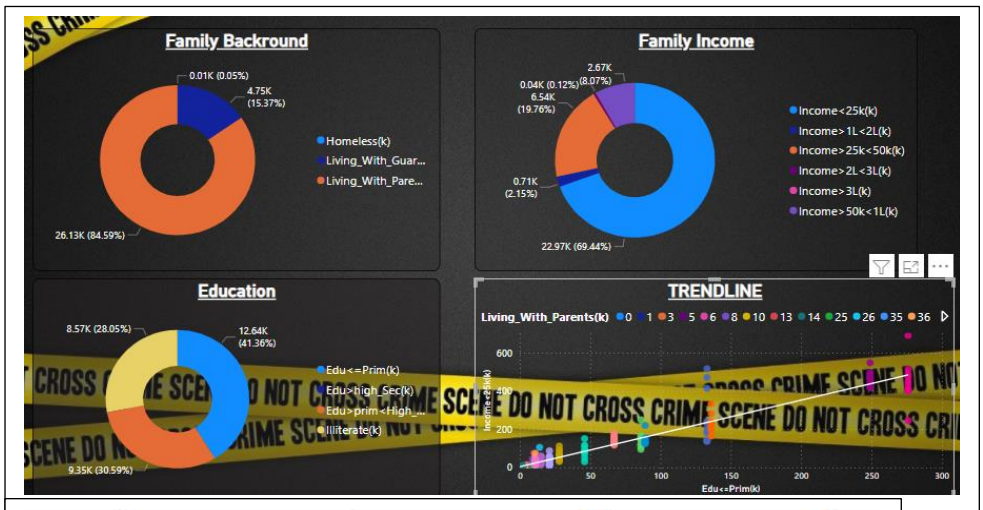
2. Offenders relation to the rape victim

```
SELECT "STATE_UT" ,
sum("CasesInWhichOffendersWereOtherKnownPersons")ASCulprit_is_Unknown_Person,
sum("CasesInWhichOffendersWereKnownToTheVictims")asCulprit_is_Known_Person                    ,
sum("CasesInWhichOffendersWereNeighbours")asCulprit_Is_Neighbours,
sum("CasesInWhichOffendersWereRelatives") as Culprit_is_Relatives,
sum ("CasesInWhichOffendersWereParents/CloseFamilyMembers") as Culprit_is_Parent_or_CloseRelative
FROM Offenders_relation_to_rape_victim
GROUP by "STATE_UT"
```

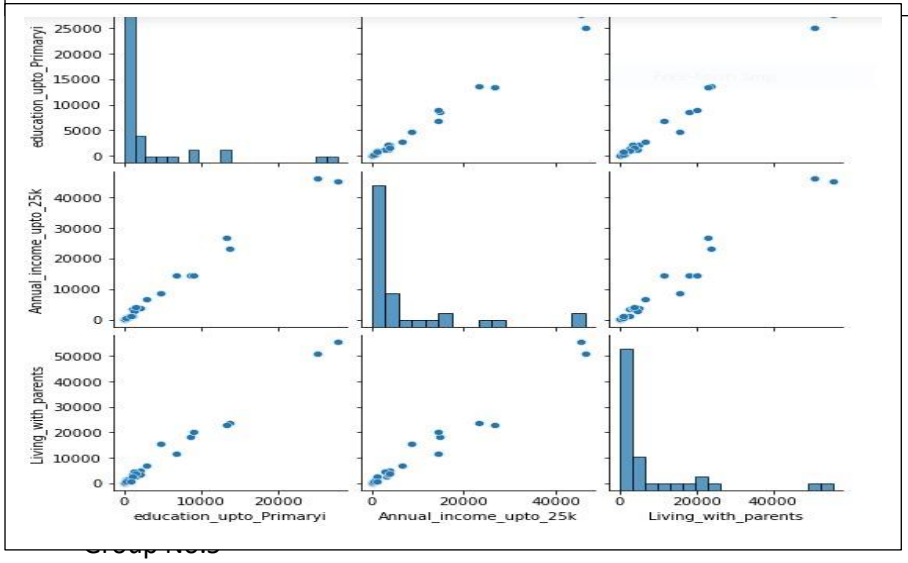


3.Juveniles family background, education and economic setup.

```
select T1.Area_Name, T1.Year , substr (T1.Sub_Group_Name,3,20),
                (sum(T1.Economic_Set_up_Annual_Income_upto_Rs_25000)/1000) as "Income<25k (k)" ,
                (sum(T1.Economic_Set_up_Annual_Income_250001_to_50000)/1000) as "Income>25k<50k (k)",
                (sum(T1.Economic_Set_up_Middle_income_from_50001_to_100000)/1000) as "Income>50k<1L (k)" ,
                (sum(T1.Economic_Set_up_Middle_income_from_100001_to_200000)/1000) as "Income>1L<2L (k)" ,

        (sum(T1.Economic_Set_up_Upper_middle_income_from_200001_to_300000)/1000)as"Income>2L<3L (k)" ,
                (sum(T1.Economic_Set_up_Upper_income_above_Rs_300000))/1000 as "Income>3L (k)" ,
                substr (T2.Sub_Group_Name, 3, 10),
                (sum(T2.Education_Illiterate)/1000) AS "Illiterate (k)" ,
                (sum (T2.Education_Upto_primary)/1000) AS "Edu<=Prim (k)" ,
                (sum(T2.Education_Above_Primary_but_below_Matric_or_Higher_Secondary)/1000)as
                "Edu>prim<High_Sec(k)" ,
                (sum ( "T2.Education_Matric_or_Higher_Secondary_&_above" )/1000) as "Edu>high_Sec (k)" ,
                substr (T3.Sub_Group_Name, 3,25),
                round(sum(T3.Family_back_ground_Homeless)/100000) as "Homeless (k) ",
                (sum(T3.Family_back_ground_Living_with_guardian)/1000) as "Living_With_Guardian (k)" ,
                (sum(T3.Family_back_ground_Living_with_parents))/1000 as "Living_With_Parents(k)"
FROM Juveniles_arrested_Economic_setup as T1
INNER JOIN  Juveniles_arrested_Education as T2
on T1.Area_Name = T2.Area_Name
INNER JOIN Juveniles_arrested_Family_background as T3
on T2.Area_Name=T3.Area_Name
GROUP by T1.Area_Name , T1.Year
```



	education_upto_Primaryi	Annual_income_upto_25k	Living_with_parents
count	35.000000	35.000000	35.000000
mean	3614.742857	6566.514286	7471.371429
std	6734.425153	11844.153140	13351.055731
min	0.000000	0.000000	0.000000
25%	197.000000	306.000000	362.500000
50%	643.000000	1144.000000	1366.000000
75%	2458.500000	5303.000000	5899.000000
max	27610.000000	46263.000000	55465.000000

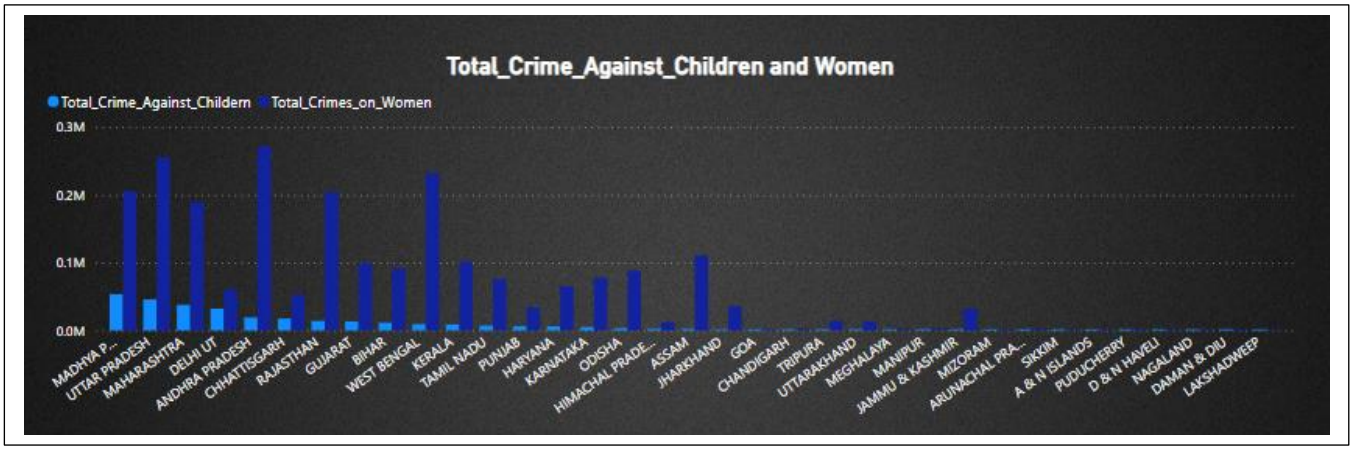


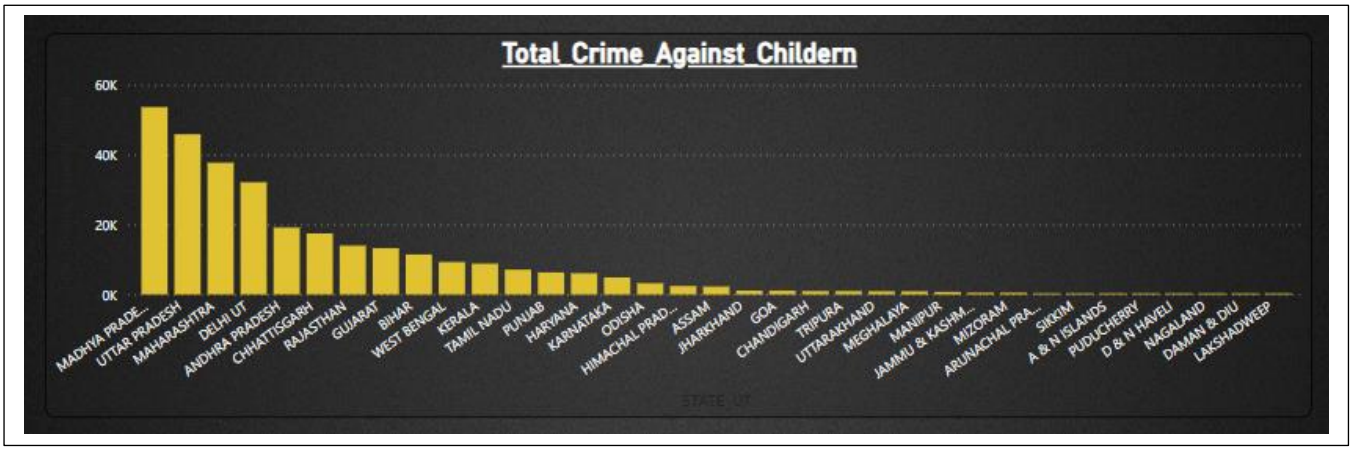
	education_upto_Primaryi	Annual_income_upto_25k	Living_with_parents
education_upto_Primaryi	1.000000	0.995398	0.992995
Annual_income_upto_25k	0.995398	1.000000	0.986542
Living_with_parents	0.992995	0.986542	1.000000

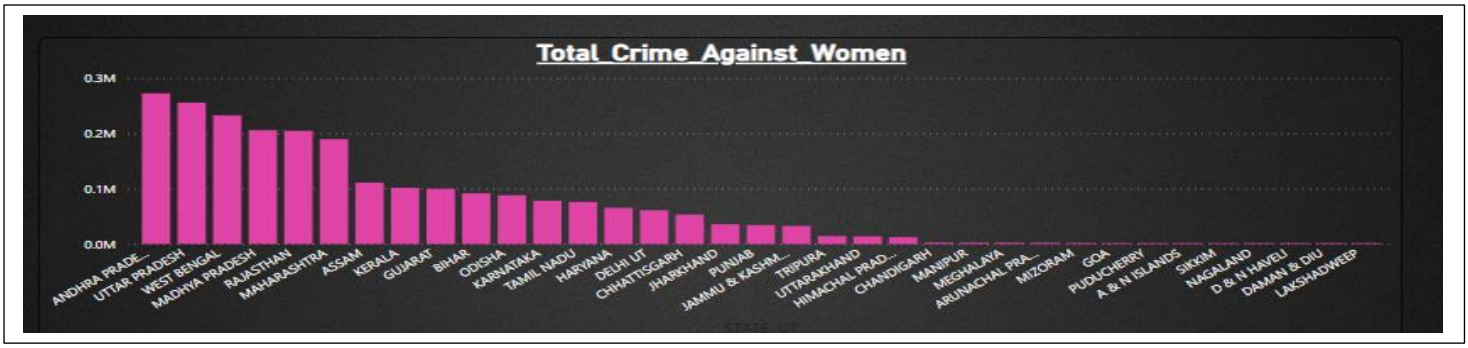
Correlation between education up to primary, Annual income up to 25k,living with parents are very high which means they strongly related to each other.

4.Which state has more crime against children and women?

```
SELECT t1.STATE_UT , (t1.Total_Crime_Against_Childern) , (t2.Total_Crimes_on_Women)
FROM
(SELECT STATE_UT ,
                    sum (Total_Crime_against_children)
                    As Total_Crime_Against_Childern
FROM District_wise_crimes_committed_against_children_2001_2013
WHERE DISTRICT NOT LIKE '%TOTAL%'
GROUP BY STATE_UT ) as t1
INNER JOIN
(SELECT "STATE_UT" ,
                    sum(KidnappingandAbduction + DowryDeaths +
                    Assaultonwomenwithintenttooutragehermodesty + InsulttomodestyofWomen +
      CrueltybyHusbandorhisRelatives + ImportationofGirls + Rape )as Total_Crimes_on_Women
FROM District_wise_crimes_committed_against_women_2001_2013
WHERE DISTRICT NOT LIKE '%TOTAL%'
GROUP BY "STATE_UT" )as t2
on t1.STATE_UT = t2.STATE_UT
GROUP by t1.STATE_UT
ORDER BY Total_Crime_Against_Childern DESC
```

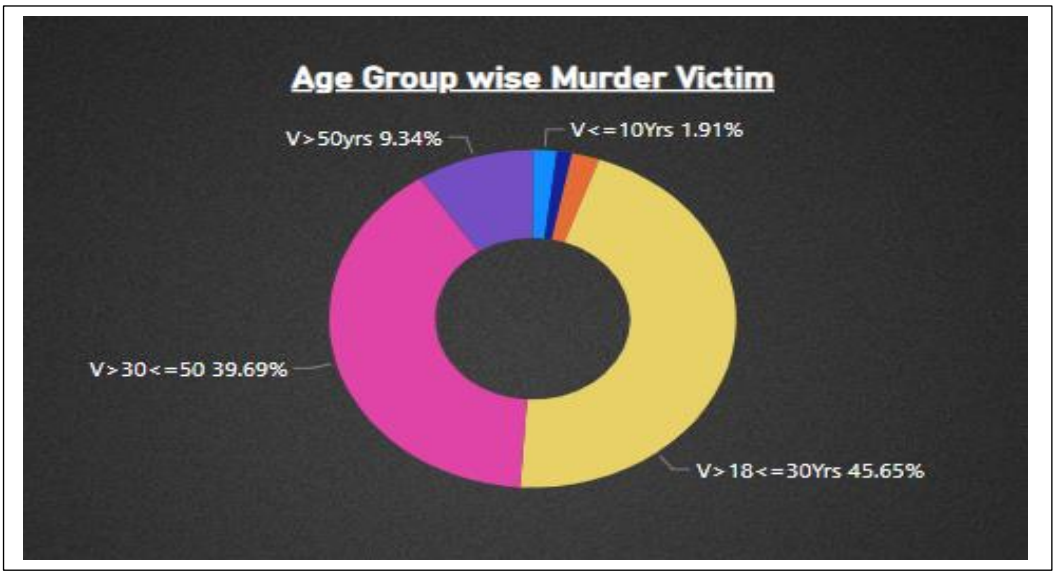


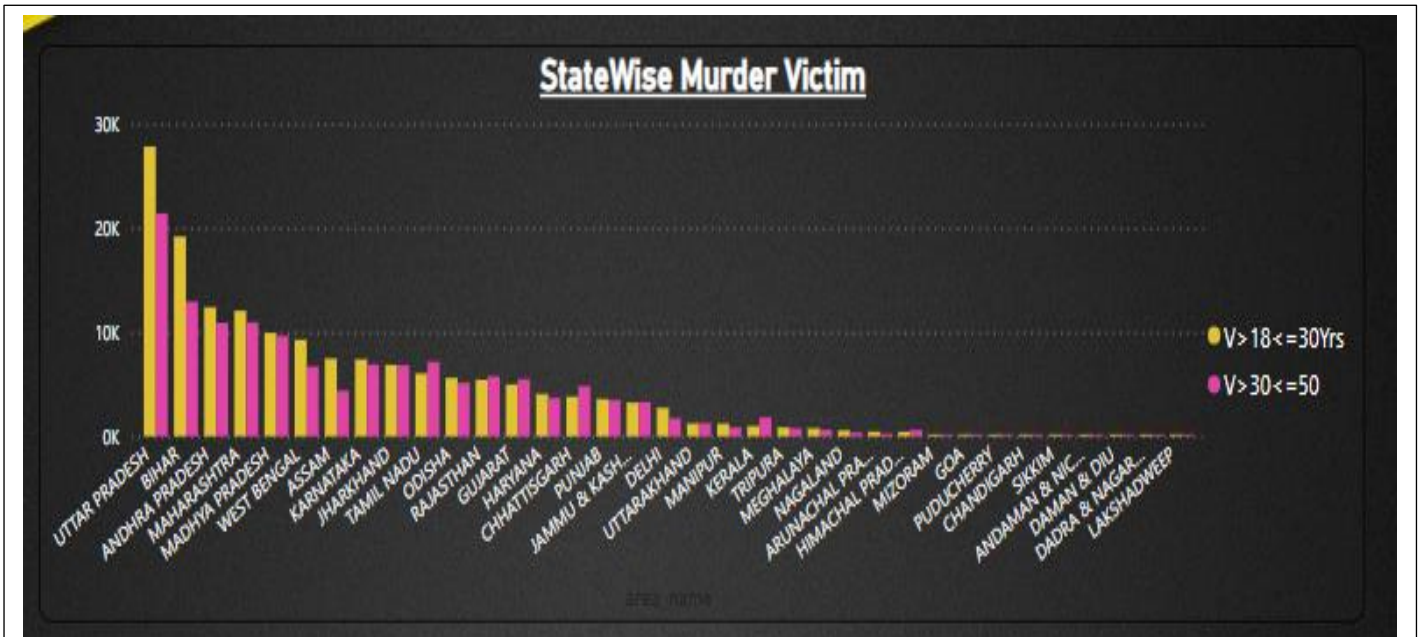




5. **Age group wise murder victim**

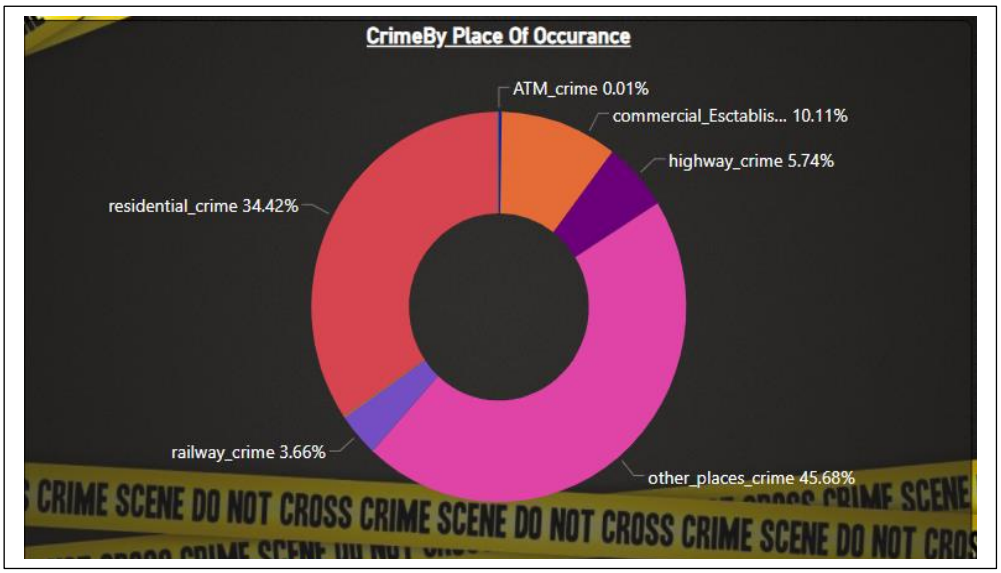
```
SELECT Area_Name, substr (Sub_Group_Name , 3,20) as Gender ,
        Sum( Victims_Upto_10_Yrs) as "Victims<=10Yrs" ,
        sum ( Victims_Upto_10_15_Yrs) as "Victims>10<=15Yrs" ,
        Sum (Victims_Upto_15_18_Yrs) as "Victims>15<=18Yrs" ,
        Sum ( Victims_Upto_18_30_Yrs) as "Victims>18<=30Yrs" ,
        sum (Victims_Upto_30_50_Yrs) as "Victims>30<=50" ,
        sum (Victims_Above_50_Yrs) as "Victims>50yrs" ,
        sum (Victims_Total) as Total_Victims
From "Murdar_Victime_By_Age-and_Sex"
WHERE Area_Name is NOT NULL and Sub_Group_Name NOT like '%Total%'
GROUP by Area_Name , Gender
```





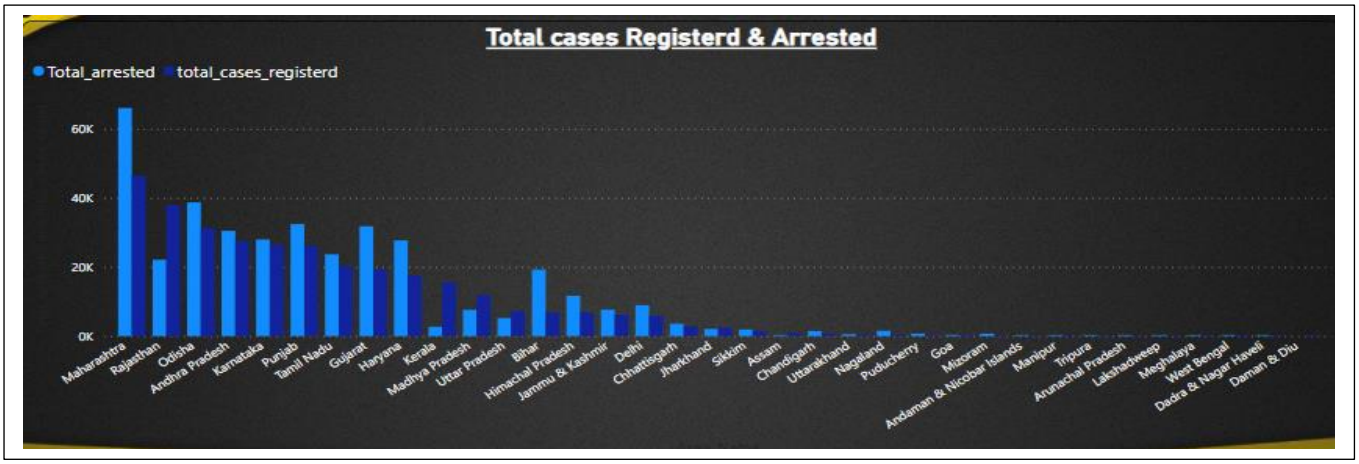
6.Crime by place of occurrence?

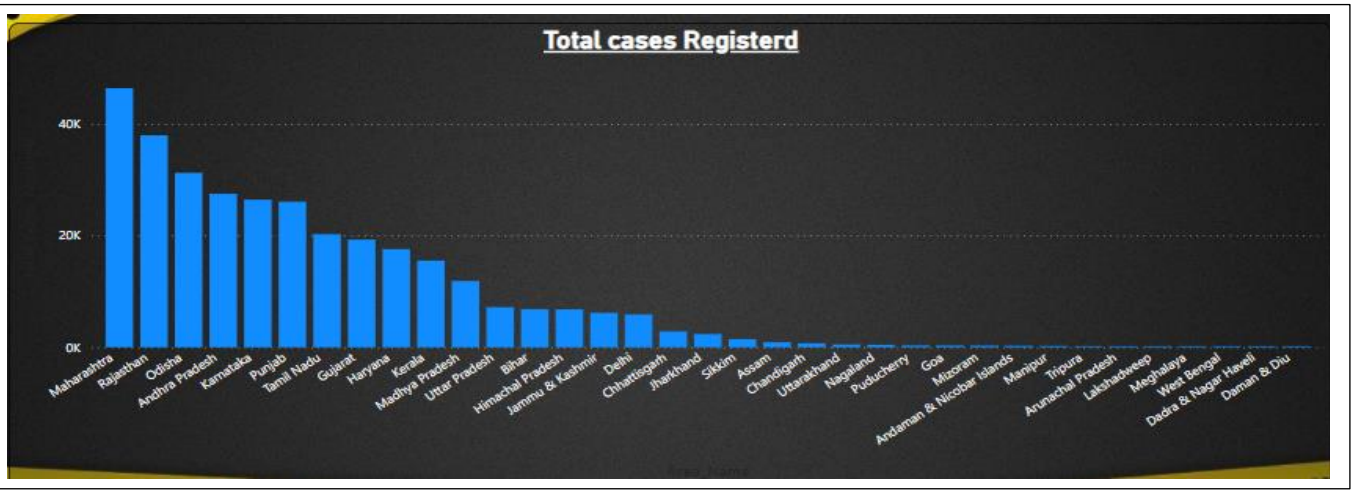
```
select Crime_by_place_of_occurrence_2001_2013.STATE_UT ,

SUM(residentialpremises_Burglary+residentialpremises_Dacoity+residentialpremises_Robbery+residentialpremises_
Theft+Residence_Burglary_Casesreported+Residence_Dacoity_Casesreported+ Residence_Robbery_Casesreported
+ Residence_Theft_Casesreported) as Residential_crime,

sum(HIGHWAYS_Burglary+HIGHWAYS_Dacoity+HIGHWAYS_Robbery+HIGHWAYS_Theft+Highways_Burglary_Ca
sesreported+Highways_Dacoity_Casesreported+Highways_Robbery_Casesreported+Highways_Theft_Casesreporte
d) as Highway_crime,

sum(RIVER_anD_SEA_Burglary+RIVER_and_SEA_Dacoity+RIVER_and_SEA_Robbery+RIVER_and_SEA_Theft+R
iverOrSea_Burglary_Casesreported+RiverOrSea_Dacoity_Casesreported+RiverOrSea_Robbery_Casesreported +
RiverOrSea_Theft_Casesreported) as Riverandsea_Crime,

sum(RAILWAYS_Burglary+RAILWAYS_Dacoity+RAILWAYS_Robbery+RAILWAYS_Theft+Railways_Burglary_Cases
reported+Railways_Dacoity_Casesreported+Railways_Robbery_Casesreported+ Railways_Theft_Casesreported) as
Railway_crime,

sum(BANKS_Burglary+BANKS_Dacoity+BANKS_Robbery+BANKS_Theft+Bank_Burglary_Casesreported+
Bank_Dacoity_Casesreported+ Bank_Robbery_Casesreported + Bank_Theft_Casesreported) as Bank_crime,

sum(COMMERCIAL_ESTABLISHMENTS_Burglary+COMMERCIAL_ESTABLISHMENTS_Dacoity+COMMERCIAL_E
STABLISHMENTS_Robbery+COMMERCIAL_ESTABLISHMENTS_Theft+CommEst_Burglary_Casesreported+Comm
Est_Dacoity_Casesreported+CommEst_Robbery_Casesreported+ CommEst_Theft_Casesreported)
as Commercial_Establishment_crime,

sum(ReligiousPlaces_Burglary_Casesreported+ReligiousPlaces_Dacoity_Casesreported+ReligiousPlaces_Robbery_
Casesreported + ReligiousPlaces_Theft_Casesreported)
as Religiousplaces_crime,

sum(ATM_Burglary_Casesreported+ATM_Dacoity_Casesreported+ATM_Robbery_Casesreported+ATM_Theft_Case
sreported) as ATM_crime,

sum(OTHER_PLACES_BurglarY+OTHER_PLACES_Dacoity+OTHER_PLACES_Robbery+OTHER_PLACES_Theft +
OtherPlaces_Burglary_Casesreported+ OtherPlaces_Dacoity_Casesreported + OtherPlaces_Robbery_Casesreported
+ OtherPlaces_Theft_Casesreported) as Other_Places_crime

from Crime_by_place_of_occurrence_2001_2013 INNER JOIN Crime_by_place_of_occurrence_2014 ON
LOWER(Crime_by_place_of_occurrence_2001_2013.STATE_UT)=lower(Crime_by_place_of_occurrence_2014.state
s_uts)
WHERE Crime_by_place_of_occurrence_2001_2013.STATE_UT NOT like '%TOTAL%'
group by Crime_by_place_of_occurrence_2001_2013.STATE_UT;
```

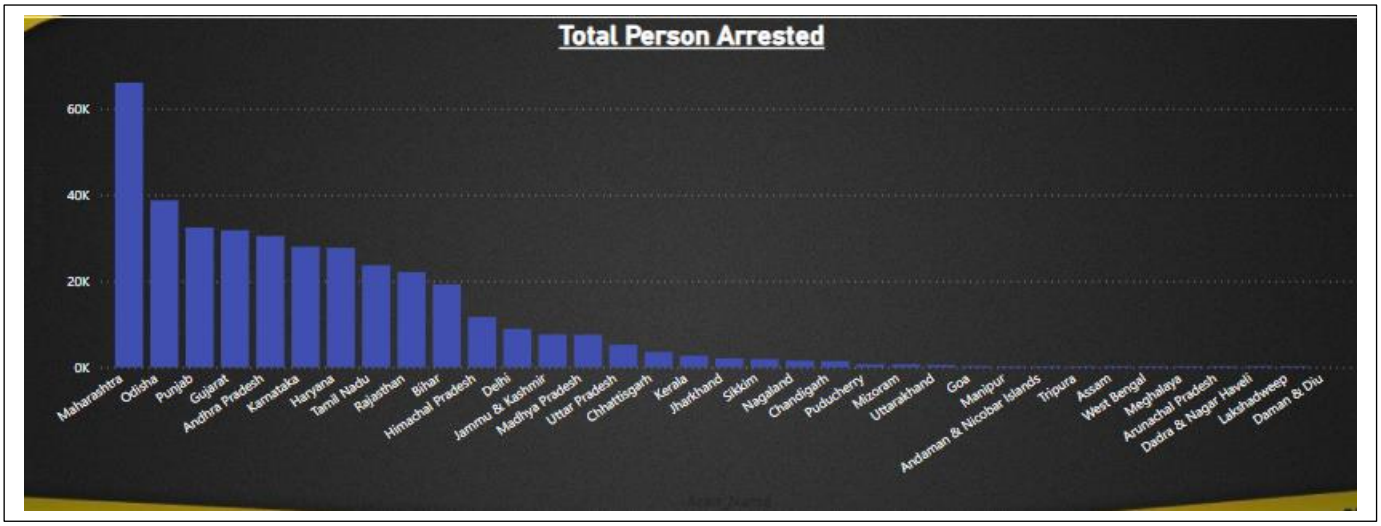


7.Anti-corruption cases vs arrests the

```
SELECT t1.area_name , sum (t1.AC02_No_of_cases_registered_during_the_year) as total_cases_registerd ,
                      sum (t2.ACA02_No_of_persons_arrested_during_the_year) as Total_arrested
from Anti_corruprion_cases as t1
inner join
Anti_corruption_arrests as t2
on t1.area_name = t2.area_name
GROUP by t1.area_name ORDER  BY (sum(t1.AC02_No_of_cases_registered_during_the_year)) DESC
```

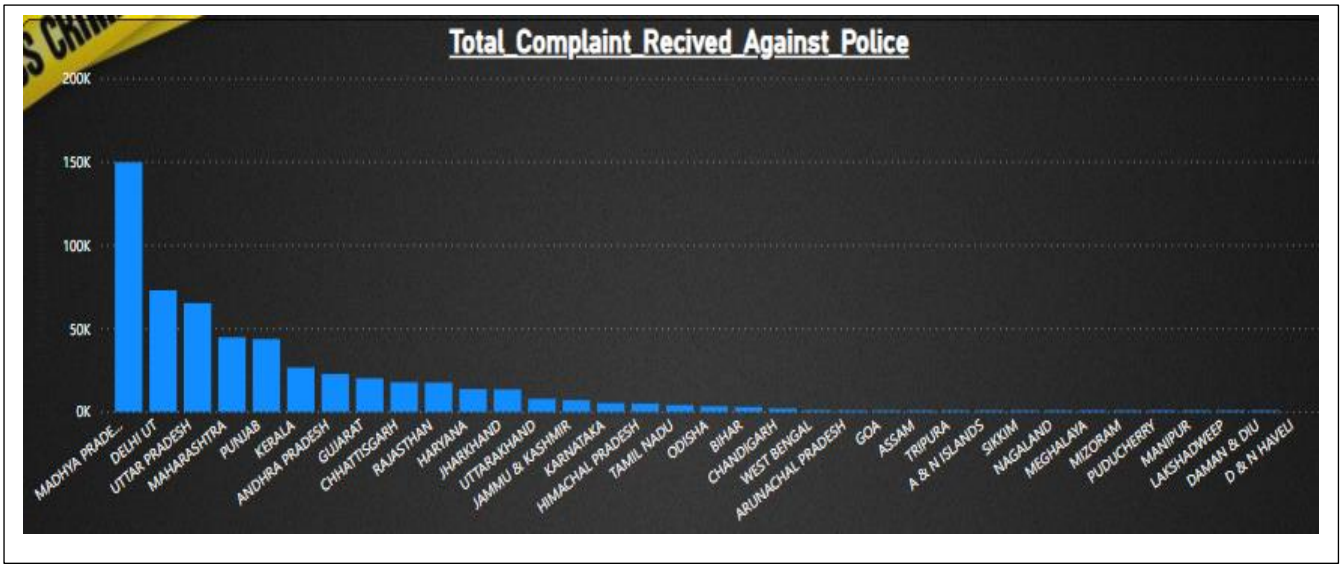


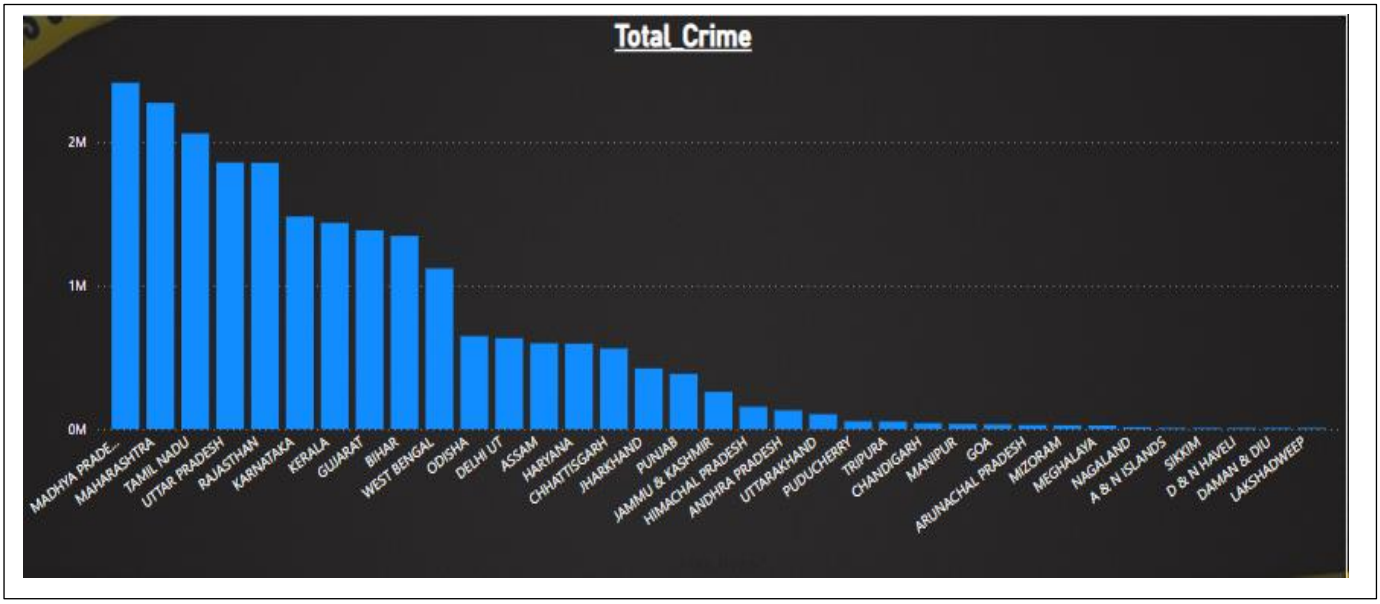




8.Which state has more number of complaints against police?

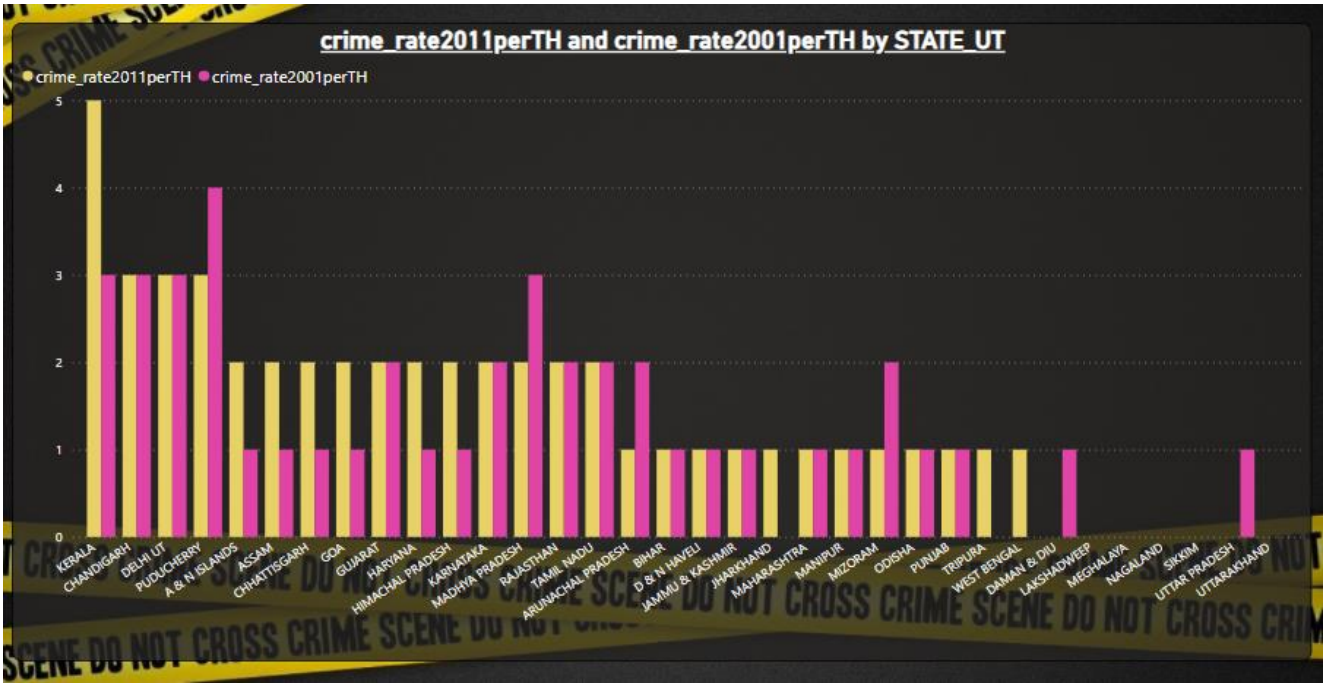
```
selecT area_name  , t1.Total_Complaint_Recived , t2.Total_Crime
FROM
(SELECT Area_Name, year , sum (Complaints_Received_or_Alleged) As Total_Complaint_Recived
from Compaint_against_Police
Group by area_name ) as t1
INNER JOIN
(SELECT STATE_UT, year, sum (TOTALIPCCRIMES) as Total_Crime
FROM District_wise_crimes_committed_IPC_2001_2012
where  DISTRICT NOT like '%Total%'
GROUP by STATE_UT)as t2
ON t1.area_name =t2.STATE_UT
group by t1.area_name
```





9.Which state is the safest for foreigners?

```
SELECT t1.STATE_UT ,
                    round (t1.Total_Crime_2001/t2.Year2001inTH) as crime_rate2001perTH,
                    round (t3.Total_Crime_2011/t2.Year2011inTH) as crime_rate2011perTH
from
(SELECT STATE_UT, year, sum (TOTALIPCCRIMES) as Total_Crime_2001
FROM District_wise_crimes_committed_IPC_2001_2012
where year = 2001 and DISTRICT NOT like '%Total%'
GROUP by STATE_UT) as t1
INNER JOIN
(select State_UnionTerritory , (Year_2001) as Year2001inTH , Year_2011 as Year2011inTH
FROM indian_population_data_resurve_bank1) AS t2
on t1.STATE_UT = t2.State_UnionTerritory
INNER JOIN
(SELECT STATE_UT, year, sum (TOTALIPCCRIMES) as Total_Crime_2011
FROM District_wise_crimes_committed_IPC_2001_2012
where year = 2011 and DISTRICT not like '%total%'
GROUP by STATE_UT) as t3
on t2.State_UnionTerritory = t3.STATE_UT
group by t1.STATE_UT
ORDER by crime_rate2001perTH DESC , crime_rate2011perTH DESC ;
```



Result

From chart 1. we can derive that the kidnapping happened in many states for marriage that means the girls birth rate is the major factor behind this kidnappings but as we can see goa is the only exceptional state where the major kidnapping is happening for ransom.

From chart 2.We get the shocking results after analysing the data that the in 50% of the rape happen where culprit is known to victim and in majority in 45% cases culprit is a close family members, does it means that the safety of girls is major concern and girls have to be self-dependent to save themselves from such offenders. Girls should have proper knowledge about good touch and bad touch and should take a stand against the person without hesitating.

From chart 3.we make the relation between the education family background and family income and we got to know that the major culprits under this category have a less education poor family background but unexpectedly they are living with their parents, it means that the better education facility and proper gardening of this kids can reduce that crime in this category. If Government will provide quality education in government schools it will definitely lead to lesser crime in our country.

From chart 4.we conclude that Madhya Pradesh has more crime against women and children than any other country in the India followed by Uttar Pradesh and Maharashtra.

From chart 5. As major victims of murder is male there is huge gap between male and female victims also in male victim most victims are 18 to 50 age group and also 3 major state in north India have a highest murders rate also the cases for other crime is low.

From chart 6.maximum crime is happening in residence followed by commercial establishment and then railway in railways maximum cases of theft has registered.

From chart 7. The maximum cases registered for anticorruption and arrests are more in Maharashtra but as we analysed earlier other state has more crime rate and also complains against police but none is in top of anti-corruption cases does this means in other state there is need of more tighten anticorruption activities.

From chart 8. Madhya Pradesh is top in the list of complain against police but it also top in the crime against children and women so in Madhya Pradesh if the police can improvised their work and duty and will help to reduce the cases against police also the women and children were more safe.

From Chart 9. for foreigners there is more versatile tourist attractions are available in India in different state as in Maharashtra Ajanta & Ellora caves , Kas-pathar , in Uttar Pradesh Taj-Mahal in Kerala Dense Forest, in Tamilnadu Minakshii temple Rameshwaram Island, in Karnataka Bhagwan Padmnabh temple, in Gurjart Ran of Kachh, in Rajasthan Jaisalmer and pink city and forts. While analysing this all state has more or less in same crime rate and it not change in populations wise but we can see in Kerala the crime rate is increasing exponentially as this state is a tourist attraction and in Gujrat Maharashtra Uttar Pradesh the crime not increased it growing with population so form this we can conclude that for foreigners it not safe to visit Kerala in such conditions they can see other tourist attraction in India.

Conclusion

From analysing graphs we can understand that from year 2001 to 2013 Some states have a higher number of crime in each and every category The state we can mention is Uttar Pradesh, Madhya Pradesh, Andhra Pradesh, Maharashtra have the highest number of crime and always are in the top ten, from UT Delhi UT having more crime and form north east zone of India Assam

has the more crimes also in Kerala the crime rate in increasing against population so is the mains concern.

PowerBi Visualisation Dashboard Group 5