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ANALYSIS OF 5 TABLES FROM THE CENSUS OF INDIA 2011

A-1: Number Of Villages, Towns, Households, Population And Area

The given table provides data on the number of villages, number of towns, number of households, population, area and population per sq. km. in a state/district/sub-district. The major data attributes are:

1. **State Code:** Assigns a code to each state of India. (E.g.: 01 to Jammu and Kashmir, 02 to Himachal Pradesh and so on)
2. **District Code:** Assigns a code to each district of the different states. The assignment of the codes is done afresh for each state.
3. **Sub-District Code:** Assigns a code to each sub-district of different districts.
4. **Name:** Classifies the name of the country/state/district/sub-district.
5. **Total/Rural/Urban:** Classifies whether the data in a particular row is related to the total or to the rural areas or to the urban areas of that state/district/sub-district.
6. **Number of Villages:** Provides data on the number of villages in the corresponding state/district/sub-district. It is sub-divided into two columns – Inhabited and Uninhabited:
    i. **Inhabited:** Provides the count of villages that have people living in it in the corresponding state/district/sub-district.
    ii. **Uninhabited:** Provides the number of villages that have no residents living in them in the corresponding state/district/sub-district.
7. **Number of towns:** Gives the number of towns in the corresponding state/district/sub-district.
8. **Number of households:** Gives the number of households in each state/district/sub-district.
9. **Population:** Provides the data on number of people living in a certain area. It is further divided into Persons, Males, Females, which gives the total number of people, the number of males and the number of females living in a certain area respectively.
10. **Area (in sq. km):** Provides the total area of a particular state/district/sub-district.
11. **Population per sq. km:** Provides data on number of people living in each square kilometer of each state/district/sub-district.

Administrative Level of the Data Used: The table has used data at the country level, state level, district level and sub- district level.

Problem with Data: Some of the data points are missing. For example, data for the sub-district urban Nohra, Nankhari, etc. are missing. This can lead to a wrong approximation of attributes.

Rates and Ratios that can be calculated: The rates that can be calculated from this table are:

i. **Ratio of rural to urban population:** For any state/district/sub-district, we can calculate the ratio of rural to urban population of that area as:
$$\frac{total\ no.\ of\ people\ living\ in\ rural\ areas}{total\ no.\ of\ people\ living\ in\ urban\ areas}$$

ii. **Sex Ratio:** We can calculate the sex-ratio of the country India or for any of its state/district/sub-district. We can also calculate the urban sex-ratio and rural sex-ratio for any state/district/sub-district.

iii. **Population Density:** It calculates the number of people living in each square kilometer of area. The population per sq. km column gives the population density of each state/district/sub-district.

C-13: Single Year Age Returns By Residence And Sex

The table provides data on the number of people of different ages (single years) classified on the basis of gender and residence. The major data attributes are:

1. **State Code:** Assigns a code to each state of India.
2. **District Code:** Assigns a code to each district of different states.
3. **Area Name:** States the name of the country or each state.
4. **Age:** Classifies the different single years of age. E.g.: 0 year, 1 year, ... , 100+ years.
5. **Total:** Provides the number of persons with respect to each age and state. It is further divided into Persons, Males and Females. 'Persons' provides the total number of persons of a particular age in the country/state. 'Males' and 'Females' provide the number of males and females of a particular age in the country/state.
6. **Rural:** Provides number of persons of each age living in rural areas in the country/state. It is further divided into: Persons, Males and Females which gives the total no. of persons, no. of males and no. of females of each age living in rural areas of the country/state respectively.
7. **Urban:** Provides data on no. of persons of each age living in urban areas in the country/state. It is further divided into Persons, Males and Females.

Administrative Level of the Data Used: The table has used data at the country level and state level.

Problem with Data: Each row with the title *"Age not stated"* contains information about people who have not revealed their age and hence these information cannot be used properly.

Rates and Ratios that can be calculated: The rates that can be calculated from this table are:

i. **Sex ratio:** Sex ratio for the country as well as for each state can be calculated. The urban sex ratio and rural sex ratio for the country as well as each state can be calculated.

ii. **Proportion of Each Age Group to Total Population:** It can be calculated by the following formula:

$$\frac{Population\ in\ respective\ age}{Total\ Population}$$

iii. **Age Dependency Ratio:** The age dependency ratio can be calculated for each country/state:

- **Youth Dependency Ratio:**

$$\frac{Population\ aged\ 0-15\ years}{Population\ aged\ 16-64\ years}$$

- **Old-Age Dependency Ratio:**

$$\frac{Population\ aged\ 65\ years\ and\ above}{Population\ aged\ 16-64\ years}$$

- **Total Dependency Ratio:**

$$\frac{Population\ aged\ 0-15\ years + Population\ aged\ 65\ years\ and\ above}{Population\ aged\ 16-64\ years}$$

C-6: Ever Married And Currently Married Population By Age At Marriage, Duration Of Marriage And Educational Level

This table provides data on the educational level, age at marriage, no. of ever married persons and duration of marriage of currently married persons of the country and different states. The major data attributes are:

1. **State Code:** Assigns a code to each state of the country.
2. **District Code:** Assigns a code to each district of India.
3. **Area Name:** States the name of the country (India) or each state.
4. **Total/Rural/Urban:** States whether the data belongs to the total /rural/urban areas of India or each state.
5. **Education Level:** Classifies the educational level into illiterate, literate, literate but below primary, primary but below middle, middle but below matric or secondary, matric or secondary but below graduate, graduate and above of the married persons.
6. **Age at Marriage:** Specifies the age at which the person got married.
7. **Number of ever married persons:** Provides the data on no. of persons who have the marital status married. It is divided into males and females which give the no. of males and the no. of females who are married respectively.
8. **Duration of marriage of currently married persons:** Provides data on the present tenure of marriage. It is divided into different tenures, like 0-4, 5-9, 10-19, 20-29, 30-39, 40+, duration not known.

Administrative Level of the Data Used: The table has used data at the country level and state level.

Problem with Data: Each row with the title *"Age not stated"* contains information about people who have not revealed their age. Also the column *"Duration not known"* of duration of marriage of currently married persons contains info about persons whose marriage duration is not known and can lead to problems while analysis.

Rates and Ratios that can be calculated: The rates and ratios that can be calculated from this table are:

i. **Ratio of married males and females for different age groups:** This can be calculated for each state and different age groups by:

$$\frac{No.\,of\ married\ males\ of\ a\ particular\ age\ group}{No.\,of\ married\ females\ of\ a\ particular\ age\ group}$$

C-1: Population By Religious Community – 2011

This table provides data on the population of different religious communities in the country and in each state. The major data attributes are:

1. **State Code:** Assigns a code to the country/ each state.
2. **District Code:** Assigns a code to each district of India.
3. **Tehsil Code:** Assigns a code to each tehsil of India.
4. **Town Code:** Assigns a code to each town of India.
5. **Area Name:** States the name of the country/state.
6. **Total/Rural/Urban:** States whether the data belongs to the total /rural/urban areas of India of the particular state.
7. **Religious Communities:** It is divided into Total, Hindu, Muslim, Christian, Sikh, Buddhist, Jain, other religions and persuasions and Religion not stated. Each of these divisions is further subdivided into Persons, Males and Females. The 'Persons' subdivision of each religion gives the total no. of people following that particular religion, the 'Males' and 'Females' subdivisions of each religious community gives the no. of males and females who follow that particular religion respectively.

Administrative Level of the Data Used: The table has used data at the country level and state level.

Problem with Data: No problem observed as such.

Rates and Ratios that can be calculated:

    i.   **Ratio of population of a religious community in two states:** This can be calculated for every pair of state A and B as:

$$\frac{Population\ of\ Religious\ Community\ in\ State\ A}{Population\ of\ Religious\ Community\ in\ State\ B}$$

    ii.   **Proportion of each religious community:** This can be calculated for the country or any state as:

$$\frac{Population\ of\ a\ particular\ religious\ community}{Total\ population}$$

    iii.   **Percentage of males/females of a particular religious community:** This can be calculated for the country or any state as:

$$\frac{No.\ of\ males\ or\ females\ of\ a\ particular\ religious\ community}{Total\ population} \times 100$$

HH-1: Normal Households By Household Size

This table provides data about number of normal households and household size in India and each state and union territories. The major data attributes are:

1. **State Code:** Assigns a code to the country (India) /each state /each UT.
2. **Area Name:** States the name of the country (India) /state /UT.
3. **Total/Rural/Urban:** States whether the data belongs to the total /rural/urban areas of the country/state/UT.
4. **Normal household:** It is divided into Number and Population. The 'Number' column specifies the total no. of households in the rural/urban/total area of the country/state/UT. The 'Population' column specifies the total population of the households.
5. **Household size:** It is segregated into various sizes like 1, 2, …, 15+. The household size refers to no. of persons in a household.
6. **Mean Household Size:** Provides data about the average household size in each state/UT.

Administrative Level of the Data Used: The table has used data at the country level, state level and UT level.

Problem with Data: No problem observed as such.

Rates and Ratios that can be calculated:

    i.   **Ratio of average household size in rural and urban areas:** This can be calculated for each state/UT as:

$$\frac{Average\ household\ size\ in\ rural\ areas\ of\ a\ particular\ state/UT}{Average\ household\ size\ in\ rural\ areas\ of\ that\ state/UT}$$