

## An analysis into variation in houseless population among rural and urban, among SC,ST and non SC/ST in India.

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**Subash Kumar**

Research scholar, department of economics Jammu University

### **Abstract:**

*The census 2011 claims that proportion of homeless population has gone down from by 8.8 % from 2001 to 2011 and it has reached 17.7 lakhs. The figure on homeless population looks miniscule when it is taken in percentage terms but in absolute numbers a large no of people are without shelter and needs serious attention of policy makers. The Census 2011 has found that between 2001 and 2011 houseless population in urban areas grew by 20.5% but in rural areas it declined by 28.4%. The proportion of houseless children in houseless population has declined from 17.8% in 2001 to 15.3% in 2011 but proportion of homeless population has increased in urban areas by 18. This paper attempts to analyze whether there is significant difference between homeless (without any shelter) population of SC, ST and other social groups in all Indian states with population belonging to all these groups. An empirical assessment is made to find whether rural or urban areas have more houseless population and whether the difference is significant. The study is based on secondary data collected from the office of Registrar Census Commissioner of India. One way ANOVA and Z test has been used for finding variation.*

### **Review of literature**

Home is very broad and very rich concept which included identity, comfort and security (UNCHS, 1996). Home is place where a person is able to distinguished meaning social relation with other and defines his space with others (Cooper, 1995). He also has discussed

the idea of relative and absolute terms. Absolute homelessness may occur when a person do not have shelter or feeling of home. Relative homelessness is a situation where person may a have shelter but don't have home. United Nations indentifies homelessness people under two category (a) primary homelessness (b) secondary homelessness. Persons living in streets without shelters and fall within the scope of living quarters. Secondary homelessness is persons who frequently move between various types of accommodation but have no usual address on census form. "Census of India defines 'houseless people' as the person who are not living in the census houses. The latter refers to structure with a roof. Homelessness thus refers to those who are inadequately housed- without even basic shelter over their head, not even kutchra (unfinished) slum or shanty house" (Choudhry, Joseph and Singh-2010)

The census 2011 claims that urban houselessnes has increased 20.5%. As Raghavan (2001) has noted "the situation is further aggravated when urban authorities or private operators clear such settlements for commercial use or high income housing. The increasing trend towards privatization of housing services and markets also results land speculation, commodification of housing, application of user fees for housing resources such as water, sanitation and electricity, and repeal and amendment of land ceiling and rent control legislation. This leads to marginalization of poor.

Scheduled tribes and scheduled caste are section of population identified by Indian government for the purpose of granting special provisions. These populations are disadvantaged section of Indian society and have faced discrimination since ancient times. Indian constitution provides special provision for the protective discrimination of these populations but these people continue to lag behind other social groups in social, political and more importantly economic sphere.

Indian census of 2011 claims the proportion of homeless population Indian has come down in rural areas but it has increased significantly in urban areas. Despite the fact that many government policies and programmes have been started from time to time for the advancement of these sections but still a large majority of people continue to live below poverty line. Homelessness and poverty are intricately linked with each other. There has been increasing unemployment and widespread poverty as the population is growing at an alarming rate. The other cause being dominance of caste system which forces individual to individual and hierarchical occupations (Azad foundation,N.D). Nearly 30% of Dalits are engaged low skilled casual jobs as compared to only 8% in general category (World Bank-2011). Walter Fernandes points out that tribals account for about 40% of displaced population.

Government of India started policies and programmes for housing. One such schemes was Indira Awas Yojana. It was meant to provide rural housing facility for poor. It was only in 1983 a focused fund was created for the housing of scheduled caste, scheduled tribes and freed bonded labor under rural landless employment guarantee programme which gave birth to IAY in the fiscal year of 1985-86. The implementation of the schemes was to be shouldered primarily by center as cost sharing ratio is 75:25 between center and states and it is 90:10 in north eastern states. Rajiv Awas Yojana is another centrally sponsored scheme

for the housing construction of slum dwellers especially dominated by SC, ST. Indian government is trying to remove houselessness through Bharat Nirman yojana. Although houselessness has come down as rural homeless as per census of 2011 declined by 30% to 8.3 lakh, while urban houselessness grew by 21% to 9.4 lakh. As per census housing condition of scheduled tribes and scheduled caste is poor as more than 75% of ST and more than 55% of SC live in homes whose wall material is made of Grass/ Thatch/ Bamboo/ Wood/Mud, stone packed with mortar, stone not packed with mortar, G.I./Metal/ Asbestos sheets, plastic/polythene, wood, concrete, unburnt brick etc.

#### **Objective of study:**

1. To study and compare houselessness of scheduled tribes and scheduled caste across 25 selected Indian states.
2. To find variation between houseless of SC, ST and other social groups and whether the differences are significant.
3. To find out differences between percentage of rural houseless and urban house less population.

#### **Research methodology;**

*This study is based on the secondary source of data. The data has been collected from the official website of Registrar Census Commissioner of India. States with population of all three social groups-SC, ST and non SC/ST have been selected. Thus purposive sampling technique was adopted. To find variation Analysis of Variance (ANOVA) tool and also Scheffe's formula has been used. The Z test has been used to find out significance of variation in rural and urban houseless population.*

#### **Discussion:**

The proportion of people without housing facilities has come down 17.73 lakh which is just 0.15 % of total population. Although the

percentage of people without housing facilities is very less but the absolute numbers are large enough not to be ignored. Welfare programmes for the welfare weaker sections especially scheduled caste and scheduled tribes have been fruitful in this direction as housing problem among these groups is less severe today as was a decade back and these groups are comparatively better placed so far no of person without houses are concerned. The average percentage of persons for all state under analysis without housing is 0.126 for ST and it is 0.1207 for SC population and for other social groups it is 0.52 on an average for all states. Scheduled tribe population has lowest percentage of people without housing facility in Jammu and Kashmir (near to 0%), Sikkim

(near to 0%), Meghalaya (0%), Dadra and Nagar Haveli (0.01%). it is highest in Andhra Pradesh (0.62%) followed by Karnataka (0.26%). Among SC population lowest percentage is found in Tripura (0.007%) and highest percentage is found in Bihar (0.53%). For other social groups highest percentage is in Daman and Diu (3.27%) lowest in Goa (0.03%).

*The first hypothesis of present study is*

(A)  $H_0$ : There is no significant difference between houseless population of SC, ST and other social groups.

(B)  $H_1$ : There is significant difference between houseless population of SC, ST and other social groups.

**Table 1**

Name of state	% of houseless ST	% of houseless SC	% of houseless others
<b>JAMMU &amp; KASHMIR</b>	0.00	0.02	0.18
<b>HIMACHAL PRADESH</b>	0.10	0.05	0.054
<b>UTTARAKHAND</b>	0.18	0.07	0.12
<b>RAJASTHAN</b>	0.28	0.45	2.11
<b>UTTAR PRADESH</b>	1.7	0.19	1.08
<b>BIHAR</b>	0.31	0.53	0.04
<b>SIKKIM</b>	0.00	0.03	0.07
<b>Andra pardesh</b>	0.62	0.13	0.02
<b>Gujarat</b>	0.02	0.11	0.29
<b>Manipur</b>	0.003	0.07	0.22
<b>TRIPURA</b>	0.02	0.007	1.33
<b>MEGHALAYA</b>	0	0.005	0.31

ASSAM	0.009	0.035	0.04
WEST BENGAL	0.11	0.06	1.77
JHARKHAND	0.02	0.13	0.07
ODISHA	0.03	0.09	0.09
CHHATTISGARH	0.02	0.12	0.12
MADHYA PRADESH	0.05	0.17	0.25
DAMAN & DIU	0.02	0.11	3.27
DADRA & NAGAR HAVELI	0.001	0.11	0.62
KARNATAKA	0.26	0.23	0.08
GOA	0.004	0.07	0.23
KERALA	0.10	0.02	0.03
TAMIL NADU	0.87	0.09	0.05
<b>Total</b>	<b>3.028</b>	<b>2.897</b>	<b>12.5</b>
<b>Mean value</b>	<b>0.126</b>	<b>0.120</b>	<b>0.520</b>

Source: Census of India, 2011

ANOVA table

**Table 2**

Source of variation	SS	d.f	MS	F-ratio	Critical value of (at 5% level) from F table
Between sample	2.5075	(3-1)=2	$2.5075/2=1.2537$	$1.2537/0.3070=4.0825$	F (2,69)=3.15
Within sample	21.1898	(72-3)=69	$21.1898/69=0.307$		
Total		24-1=23			

Source : Author’s calculation.

The table shows that calculated value of F is 4.0825 which is greater than tabulated value of 3.15 at 5% level of significance with  $v_1=2$  and  $v_2 =69$ . This means that null hypothesis that there is no difference between percentage of houseless population of SC,ST and other social groups is rejected and I thus conclude that there is significant difference.

Now since we have three groups we will be willing to find out whether all these groups differ significantly from each other and for this purpose I will use Scheffe’s Test. This formula enables us to estimate critical difference between each pair of groups.

$$\sqrt{[MS \text{ within } (1/n+1/n_2) \times (K-1) \times F_{k-1, n-k, \alpha}]}$$

We can see that MS within is mean square within samples,  $n_1=n_2=n_3=24$ , K is the number of groups which we 3, and  $F_{k-1, n-k, \alpha}$

is the critical value for right tailed test, at  $\alpha \times 100$  level of significance. The critical value of F at 5% level of significance is 3.15 which is same for all samples (for all the groups) as sample size is same.

$$\sqrt{[0.307(1/24+1/24)(3-1)(3.15)]} = 0.4014$$

To find out the significance of differences between these two groups we have to find their means. The mean value of percentage of ST population in all states is 0.126 and for SC is 0.120 and for other social groups, it is 0.52.

**Difference of means**

Difference between SC and ST is  $0.126-0.120=0.006$

Difference between SC and other social groups is  $0.52-0.120=0.4$

And difference between ST and other social groups is  $0.52-0.126=0.394$

**Table 3**

Groups	Difference of sample means	Critical differences	Conclusion at 5% level of significance
ST and SC	0.006	0.401458	ST and SC don’t differ significantly
SC and others	0.4	0.401458	Sc and other social groups differ significantly
ST and others	0.394	0.401458	ST and Others do not differ significantly

Source: Author’s calculation

It is thus clear that scheduled tribes and scheduled caste don’t differ significantly so far as percentage of houseless population is concerned. But Sc and other social groups do differ significantly at chosen (5%) level of significance. ST and other social groups also don’t differ significantly.

We can thus say that problem of housing is as much serious for other social groups as far SC/ST and even more serious. The various programmes as IAY and other poverty alleviation programmes seem to have an

impact on reducing on the percentage of poor population India but the more impact is seen on the SC/ST. This is not surprising as criteria for assistance under the schemes is SC/ST and below poverty line people and primary focus was given on the housing problem of SC/ST.

Rural and urban houseless population variation:

**Hypothesis 2<sup>nd</sup> of present study**

*H<sub>0</sub>: There is no difference between houseless population of urban areas and rural areas of India.*

*H<sub>1</sub>: There is rural and urban populations differ significantly in houseless population. % of houseless population in rural and urban areas.*

**Table 4**

Name of state	% of rural houseless	% of urban houseless	Name of state	% of rural houseless	% of urban houseless
<b>JAMMU &amp; KASHMIR</b>	0.003177	0.0089	Punjab	0.001769	0.1636
<b>HIMACHAL PRADESH</b>	0.001266	0.047	Haryana	0.002697	0.1698
<b>UTTARAKHAND</b>	0.001797	0.61	Delhi	0.002861	0.0839
<b>RAJASTHAN</b>	0.004288	0.15	Arunachalpardesh	0.000552	0.0292
<b>UTTAR PRADESH</b>	0.004069	0.0955	Maharashtra	0.002191	0.1617
<b>BIHAR</b>	0.002594	0.0073	Tamilnadu.	0.001062	0.0371
<b>SIKKIM</b>	0.000211	0.0537			
<b>Andra pardesh</b>	0.002675	0.1231			
<b>Gujarat</b>	0.003299	0.1715			
<b>Manipur</b>	0.001619	0.099			
<b>TRIPURA</b>	0.001407	0.0691			
<b>MEGHALAYA</b>	0.000297	0.0449			
<b>ASSAM</b>	0.000576	0.0388			
<b>WEST BENGAL</b>	0.003603	0.0467			
<b>JHARKHAND</b>	0.000879	0.6555			
<b>ODISHA</b>	0.002009	0.0572			

<b>CHHATTISGARH</b>	0.0011	0.0505			
<b>MADHYA PRADESH</b>	0.003293	0.15299			
<b>DAMAN &amp; DIU</b>	0.003237	0.2419			
<b>DADRA &amp; NAGAR HAVELI</b>	0.001758	0.395			
<b>KARNATAKA</b>	0.001504	0.1098			
<b>GOA</b>	0.001868	0.2462			
<b>KERALA</b>	0.000487	0.0234			
<b>Total</b>				0.58145	4.14329
<b>Mean</b>				0.0928	0.1428

Source: Census of India, 2011.

The urban housing problem is more severe. The state with highest percentage of houseless population in urban areas is Jharkhand 0.65% followed by Uttarakhand with 0.61% of houseless population followed by Dadra and Nagar Haveli. In rural areas the state with highest percentage of houseless population is Rajasthan followed by U.P.

The mean percentage of houseless population in urban areas is 0.1428% which is significantly greater than 0.0928% of urban areas.

Test of significance for rural-urban differential in houseless population.

Table 5

	Rural	Urban	SE	Tabulated z(at5% level of significance)	Calculated z	Results
<b>Mean</b>	0.09280	0.1428	0.1333	1.96	5.890	Rejection of null hypothesis
<b>Variance</b>	0.4428	0.0724				

Authors calculation.

The formula for variance is  $=\Sigma x^2/n - (\Sigma x/n)^2$  variance was calculated by using this formula for both houseless population in rural and

urban areas. after finding the variance SE (standard error was calculated).

The formula for standard error is  $\sqrt{\sigma x^2/n + \sigma y^2/n}$ .

The z test is given by formula

$$Z = \frac{\bar{x}_1 - \bar{x}_2}{SE}$$

$\bar{x}_1$  mean for houseless population of urban and  $\bar{x}_2$  is mean for urban areas and SE is standard error. The results that I got are summarized in the table above.

Mean of houseless population for 29 states and union territories is 0.09280 for rural areas and it is 0.4428 in urban areas. Thus average percentage of houseless population is higher in urban areas. But to test whether the difference in means is significant or not Z test has been used. The reason for using Z test is that sample size is fairly large enough and SD for population is known. The variance of houseless population is more in rural areas than in urban areas. The calculated value of which is 5.890 is greater than tabulated. We thus can reject null hypothesis both at 5% and at 1% level of significance.

#### Findings of the study:

1. The average number of houseless population for all states is 0.52 for other social groups. It is 0.126 for ST and 0.120 for SC.
2. The lowest percentage houseless population among ST is in Jammu Kashmir, Sikkim and Meghalaya. It is highest in Andhra pardesh. For SC, it is lowest in Tripura and Assam and highest in Bihar. For other social groups, it is lowest in Andhra pardesh followed by Madhya pardesh. It is highest in Rajasthan, Tripura and Uttarpardesh.
3. The hypothesis of there being no significant variation in percentage of houseless population of SC, ST and non SC/ST is rejected. It means there is significant variation. Further it is found that significant

variation is found among SC and other social groups and not between SC and ST or between St and other social groups.

4. There is a significant difference between houseless population of rural and urban India. Urban areas have more houseless population than rural area.
5. U.P and Rajasthan are two states with highest percentage of houseless population in rural areas whereas in urban areas Jharkhand and union territory of Dadra and Nagar Haveli stand at the top.

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