DATABASE AND METHODOLOGY

The present study “An Analysis of Socio-Economic Conditions of Female Workers in Urban Informal Sector-A Case Study of Amritsar City” is based on primary data collected from 500 female workers with the help of well drafted, pre tested, structured interview schedule/questionnaire. An attempt has been made to analyze socio-economic conditions of female domestic workers, female waste pickers, female casual workers, female regular workers and female home workers, in the city of Amritsar. In order to make the sample representative, female workers have been randomly selected from Central, Northern, Southern, Eastern and Western part of city.

Sample of 500 female workers include:

a) 100 female domestic workers (Wage Workers in Unorganized Sector), that includes 50 part time domestic workers, 50 full time domestic workers. To avoid the heterogeneity in data collected, domestic workers engaged in middle-income families are covered.

b) 100 female waste pickers (Self Employed in Unorganized Sector),

c) 100 female causal workers (Unprotected Wage Workers in Organized Sector), that includes 50 construction workers, 25 large factory workers and 25 small factory workers,

d) 100 female regular workers (Regular Unorganized Workers), that includes 25 teachers of different schools, 25 peons of different schools, 25 nurses of different hospitals and 25 sales women of different shops and

e) 100 female home workers (Home Workers), that includes 25 dupatta decorators, 25 badam breakers, 25 cutting threads of suits and shawls and 25 salwar makers.

To evaluate the living and working conditions and to evaluate awareness and availability of social security schemes to different categories of female workers engaged in informal sector, simple percentages have been calculated. Further, a total 15 hypotheses have been tested by evaluating income, expenditure and savings of female workers. Two hypotheses tested by regression analysis, one hypothesis
tested by logistic regression analysis and twelve hypotheses tested by Chi-square test.

**Regression Analysis:**

To find variance in monthly income of members of family due to monthly income of female workers and to find variance in monthly savings of female workers due to monthly family income, simple regression analysis was performed to test following hypotheses, by taking monthly income as independent variable and monthly income of family members as dependent variable in first hypothesis. Similarly, monthly family income has been taken as independent variable and monthly savings of female workers as dependent variable, in second hypothesis.

1) **Null hypothesis Ho: Monthly income of female workers did not significantly effect the monthly income of family members**

2) **Null hypothesis Ho: Monthly family income of families of female workers did not significantly effect the monthly savings of female workers**

**Logistic Regression Analysis:**

Further to test odds of decision-making power of female workers at various levels of monthly income, binary logistic regression test was performed to test following hypothesis, by taking categorical variable monthly income (Up to ₹1500, ₹1500-3000 and ₹3000 and above) as independent variable and dummy variable decision making power of the female (Yes=1, No=0) as dependent variable.

3) **Null hypothesis Ho: Monthly income of female workers did not significantly effect the decision making power**

**Chi-Square Test:**

To find the association between family income and living conditions, family income and expenditure, Chi-square test was performed to test following hypotheses. To find association between SNA percentage and family income, SNA percentage has been taken as independent variable and family income of female workers as dependent variable. In all other hypotheses, family income of the female workers has been taken as independent variable and other socio-economic variable like health status of female workers, health facilities being used by female workers, percentage calorie intake to minimum calorie requirement of female workers, housing facility of female workers, toilet facility, drinking water facility, electricity
connection and cooking device at the house of female workers, percentage family expenditure on food items, non food items and intoxicants of female workers, as dependent variable.

So, following are the Null Hypotheses Ho: There is no significant association between

4) SNA percentage and family income of female workers
5) Family income and health status of female workers
6) Family income and health facilities used by female worker
7) Family income and percentage calorie intake to minimum calorie requirement of female workers
8) Family income and housing facility of female workers
9) Family income and toilet facility at the house of female workers
10) Family income and drinking water facility at the house of female workers
11) Family income and electricity connection at the house of female workers
12) Family income and cooking device at the house of female workers
13) Family income and percentage family expenditure on food items of female workers
14) Family income and percentage family expenditure on non food items of female workers.
15) Family income and percentage family expenditure on intoxicants female workers.

SNA\(^1\) percentage was calculated by formula:

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SNA\text{ percentage} = \frac{SNA}{(SNA + \text{Extended SNA} + \text{Non SNA})} \times 100
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To find association between health conditions of female workers and her family income, options of two health variables i.e health status\(^2\) and treatment status is assigned numbers from 1 to 4 thereby depicting bad, average, good and very good status.

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\(^1\) The central statistical organization of the GOI provides official visibility to the double burden of work. The report classifies the activities based on 1993 system of national accounts (SNA) into 3 categories:- Those coming under economic activities that are included in the SNA. Those that are not included in the SNA but are characterized as extended SNA, which include family maintenance and care for children, old and sick in the family. Non-SNA consisting of the social and cultural activities, leisure and personal care.

\(^2\) Bad health status depicts sickness once a week, Average health status depicts sickness twice a month, Good health status depicts sickness once a month and Very good health status depicts sickness once in six months.
Further, calorie intake of female workers was calculated by taking the total of their milk, non-veg, curd, pulses, vegetables, fruits and rice/chapatti consumption per day and total so obtained was converted into calories intake by consulting calorie chart of Indian Institute of Nutrition, Hyderabad. Resultant figures so derived were again measured as percentage of minimum calories requirement of 2250 per day as suggested by Rath and Dandekar (1971) Via formula:

Calorie intake as a percentage of minimum calorie requirement = \( \frac{\text{Calorie Intake}}{2250} \times 100 \)

To analyze housing facilities and family income of female workers, types of different housing variables that is type of house\(^3\), toilet facility, drinking water facility, cooking device and electricity connection status were assigned numbers 1 to 3 thereby depicting bad, average and good housing facilities.

Further, to find percentage family expenditure on non-food items, total of percentage expenditure on education, rent, clothing, health, intoxication was taken. Resultant percentages were categorized as up to 40 percent and 40 percent and above categories.

The monthly income of females has been categorized as up to ₹1500, ₹1500-3000 and ₹3000 and above, similarly, family income has been categorized as up to ₹9000, ₹9000-18000, ₹18000 and above.

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\(^3\) Type of house: Bad (bad conditioned room or slum with bamboo wall, kucha floor and plastic roof), Average (single room, mud wall, cemented floor and baale wali roof), Good (more than one room, bricks wall, tiles floor and concrete roof)