NORMS FOR THE SOCIO-ECONOMIC STATUS SCALE OF RURAL FAMILIES IN BAREILLY AREA

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ABSTRACT

A Socio-Economic Status Scale (SESS) for rural families was developed and standardized in Bareilly area. Raw scores obtained through SESS have little utility. In order to give meaning to the raw scores norms were calculated. Norms for SESS can be quite useful in finding out the relative position of an individual on socio-economic status variable. In order to find out the exact position of an individual the various kinds of norms have been reported in this paper.

Key Words : Norms, Socio-Economic Status Scale, Percentiles, Standard Scores, Stanine.

INTRODUCTION

A scale was constructed and standardized to measure the socio-economic status of rural families in Bareilly area. The scale has the added advantage in its simplicity of administration. Items included in the scale are such on which quantitative information can be objectively collected. It consists of 10 items viz., number of literate males, total years of schooling of the family, total of classes passed by the family (in years), number of rooms, area of house (square yards), total land owned (in bigha), irrigated land owned (in bigha), value of total crop production (Rs.000s), estimated annual income of family (Rs.000s) and total number of household items (Mishra and Kaul, 2000).

The scale is very simple to administer. The items included in the scale are such that information can be easily collected about these. No subjective judgment of the investigator is required in the collection of the data. Any investigator who can interview villagers can collect data on the scale. The scale has been found to be highly reliable and with high validity (Mishra and Kaul, 2001).

The scale will be useful for those concerned with research, development and education in rural areas. So often, data are required on socio-economic status of rural families. The scores obtained on the scale can be used for this purpose. However, raw scores as such have limited utility. The raw scores earned by an individual or a particular group does not indicate the relative position of the individual or the group in the total distribution of the population. Singly considered such scores do not provide a comprehensive view of the community studied nor they are usable for purposes of comparative study. For this, "norms" are needed. Norms are helpful in providing a basis for understanding and interpreting the raw scores. Norms also help in knowing the relative position of an individual on a scale (Pareek and Trivedi, 1963).

Norms are worked out on the basis of the pattern of responses of the population under study. " Norms are a range of values constituting the usual performance of a given group" (English and English, 1958). As is indicated in the definition, the distribution of the scores in the population has to be taken into account while working out the norms. This paper deals with the norms that were worked out for the scale constructed to measure the socio- economic status of rural families in the area.

The Norms–Norms were calculated for giving meaning to the raw scores and making them more useful. The percentiles and the standard scores have been computed for the norms.

Precentiles–Percentile scores have been expressed in terms of the percentage of cases in the standardised sample, which occurred on either side of a given score. A percentile indicates an individual's relative position in the standardised sample. Percentiles are also to be regarded as ranks in a group of 100 when we begin counting at the bottom, so that the lower the percentile, the lower the individual's status. Table 1 gives the percentile scores.

The 50th percentile (P50) corresponds with the median. The 25th and 75th percentiles are known as the first and third quartile points (Q1 and Q3), since they cut-off the lowest and the highest quarters of the distribution. Like the median, these statistics provide convenient reference points for describing the distribution of scores.

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Standard Scores–Current tests are making use of standard scores, which are the most satisfactory type of transferred scores from many points of view (Anastasi, 1982). These express the individual's distance from the mean in terms of the standard deviation of the distribution. Standard scores were also calculated in the present study as discussed below.

Table 1. Percentile Scores

Percentage of persons	Number of persons	Scores	Remarks
1	5.0	36.66	
5	26.1	61.10	
10	52.2	72.14	
15	78.3	88.16	
20	104.4	106.40	
25	130.5	125.00	Q_1
30	156.6	142.45	
35	182.7	162.70	
40	208.8	182.00	
45	234.9	205.90	
50	261.0	224.00	Q2(Median)
55	287.1	248.00	
60	313.2	293.24	
65	339.3	348.90	
70	365.4	425.64	
75	391.5	487.00	Q3
80	417.6	547.00	
85	443.7	661.70	
90	469.8	899.08	
95	495.9	1252.25	
100	522.0	4589.00	

Linear Standard Scores–These scores were obtained by linear transformation of the original raw scores and hence, they possess all the properties in the same magnitude as the raw scores. Any computation that can be carried out with the original raw scores can also be carried out with linear standard scores, without any distortion of results.

Table 2. Standard scores

Sl. No.	Standard Scores (Z score)	Raw score
1.	428.40	35
2.	435.18	70
3.	441.93	105
4.	448.73	140
5.	456.48	180
6.	464.22	220
7.	77.78	290
8.	03.73	24
9.	27.17	545
10.	94.95	895
11.	308.60	580

The standard scores (z scores) given in Table 2 have been calculated by using the following formula:

$$Z = \frac{X - M}{S} \times 100 + 500$$

Where, Z = Z scores (standard score)

X = Raw score

M = Mean of the raw scores

S = Standard deviation of the raw scores.

As will be seen from the formula, the mean and the standard deviation of the standard scores have been changed to 500 and 100, respectively. Some standard scores are given in Table 2. Others, if required, can be calculated in the same way.

Normalized Standard Scores–The linearly directed standard scores mentioned above are useful for comparison when found from distributions that have approximately the same form . In order to achieve a better comparability of scores from dissimilar shaped distribution, non-linear transformation is employed to fit the score to any specific type of distribution curve . Normalized standard scores are standard scores expressed in terms of a distribution that has been transformed to fit a normal curve. A well-known transformation of normalized standard scores is represented by the stanine scale (Anastasi, 1982). Raw scores were readily converted to stanines by arranging the original scores in order of size and then assigning stanines in accordance with the normal curve percentages. The stanine scores for the present scale appear in Table 3.

Table 3. Computation of Standard Scores by Stanine

Sl. No.	Normal curve Percentage	Actual case in the sample	Stanine
1.	4	20.88	1
2.	7	36.54	2
3.	12	62.64	3
4.	17	88.74	4
5.	20	104.40	5
6.	17	88.74	6
7.	12	62.64	7
8.	7	36.54	8
9.	4	20.88	9
Total	**100**	**522.00**	

Use of the Norm–The norms, in whatever way these may be expressed, are meaningful with reference to the particular normative population from which these are derived. The norms are calculated from the scores obtained by the subjects constituting the standardization

sample. The norms may, therefore, be used specifically only in the population for which these are reported. However, for research purposes these can be used with other similar populations as well. Norms can be quite useful in finding out the relative position of an individual on a particular variable. In order to find out the exact position of an individual the various kinds of norms reported in this paper may be helpful.

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