

Socio Economic Status Scales Used in India

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Abstract

The socioeconomic status is an important deciding factor for health, nutrition, mortality and morbidity. It also has a major impact on accessibility, affordability and utilization of various health services available. It also helps in formulating new health facilities by determining the economic status of a group or community. There are different scales used in India to determine the socioeconomic status. So, there is a need to know the utility, advantages and limitations of existing scales to use it in research for suitable population. Thus the aim of this review article is to explain in detail about the assessment of the different scales used in India and their advantages and limitations.

Keywords: socioeconomic status, scales, income.

Introduction

Socioeconomic status (SES) is an economic and sociological combined total measure of a person's work experience and of an individual's or family's economic and social position in relation to others. When analyzing a family's SES, the household income, earners' education, and occupation are examined, as well as combined income, whereas for an individual's SES only their own attributes are assessed. However, SES is more commonly used to depict an economic difference in society as a whole.

The Socio-economic status (SES) is an important determinant of health and nutritional status as well as of mortality and morbidity. Socio-economic status also influences the accessibility, affordability, acceptability and actual utilization of various available health facilities.[1]

Various scales used in western world to measure SES are Edward's Social-Economic Grouping of Occupations, Chapin's Social Status Scale Revised, Warner's Index of Status Characteristics, Nam-Powers Socioeconomic Status Scores and Hollingshead Index of Social Position. [1]

There are various scales currently used in India to determine the socio-economic status of a person. As there are many scales currently we should know the utility, advantages and limitations. These scales includes-

- B.G Prasad's Classification (1961)
- Udai Pareek Scale (1964)
- Kuppuswamy Socioeconomic Classification (1976)
- S.C Tiwari Et Al Scale (2005)
- O.P Agarrawal Et Al 2005

- Modified Kuppuswamy Scale
- Modified Bg Prasad Scale
- Udai Pareek Revised Scale
- **B.G Prasad's Classification (1961)**

This classification was developed in 1961 takes into consideration of per capita monthly income as a variable, modified in 19687 and 19708 by Prasad B G. It was later modified by Kumar due to the inflation in economy in 1993-94. Currently year 2001 is taken as the base year by the ministry of labour, Govt of India. Linking factors which link the All India Consumer Price Index (AICPI) between 2 years i.e. between 1961 and 1982 as well as between 1982 and 2001 are available.[1]

BG Prasad's classification is based on the following factors:

1. Per capita monthly income = total monthly income of the family/total members of family.
2. All India Average Consumer Price Index.

The Multiplication factor or Correction factor

Multiplication factor is derived by multiplying the linking factor between 1960 and 1982 i.e. 4.63 and the linking factor between 1982 and 2001 i.e. 4.93 (as 2001 is considered as the base year) and AICPI for the base year 2016 i.e. 267 (as of February 2016). The product thus obtained is divided by 100. In the next step the product is multiplied by the income limits of original BG Prasad's classification. Thus the new income limits are obtained after taking into

consideration, the correction factor and the latest AICPI.

Table 1: Prasad's Ses Classification [1]

Socioeconomic Classification	Per capita monthly income (PRASAD'S CLASSIFICATION 1961)	Per capita monthly income (Modified PRASAD'S CLASSIFICATION)		Per capita monthly income (Modified PRASAD'S CLASSIFICATION) with Formula	
		Lower Limit	Upper Limit	Lower Limit	Upper Limit
I	Rs 100 and above	(MF# x 100) †	Infinity	6095	Infinity
II	Rs 50 – 99	(MF x 50) †	(MF# x 100) † - 1	3047	6394
III	Rs 30 – 49	(MF x 30) †	(MF x 50) † - 1	1828	3046
IV	Rs 15 – 29	(MF x 15) †	(MF x 30) † - 1	914	1327
V	Below Rs 15	0	(MF x 15) † - 1	0	913

#MF=Multiplication Factor = 4.95 x 4.63* x AICPI**/100
 *Linking Factor between 1982 and 2001 Series for the AICPI** is 4.63
 **AICPI for February 2016 = 267 {All-India Average Consumer Price Index Numbers for Industrial Workers (Base: 2001=100)}.
 †Number is rounded off to nearest 1 rupee after multiplication with MF.

Price index for January 20176 (by 2001 base) = 274
 Multiplication factor = Current index value (274)/Base index value in 2001 (100) = 2.74,
 New income value = multiplication factor × old income value × 4.63 × 4.93.

Table 2: Modified BG Prasad Scale Jan 2017 [2]

Socioeconomic class	Per capita monthly income	
	In 1961	In 2017 (January 2017 CPI)
Upper class	≥ 100	≥6254
Upper middle class	50-99	3127-6253
Middle class	30-49	1876-3126
Lower middle class	15-29	938-1875
Lower class	<15	<938

Advantages: with BG Prasad's classification is that it takes into consideration only the income as a variable and it is easy to calculate. It is applicable both for urban as well as rural families. Moreover, this classification can be applied for all sections of the society.

Limitation: As AICPI value will be updated at frequent intervals there is need for simultaneous updating of all socio-economic classifications which consider income as a parameter.

• **Udai Pareek Scale (1964) [1]**

For the rural areas, Pareek's classification became popular based on nine characteristics namely caste, occupation of family head, education of family head, level of social participation of family head, landholding, housing, farm power, material possessions and type of family. The information needed for checking on the scale can be collected by simple interview.

- Cast:** Classification of castes differs in different parts of the country. The investigator should for himself find out these castes for the village (s) in which he is working. Lower caste should be given low score compared to higher caste. For example : Schedule caste (1), Lower caste (2), Artisan caste (3), Agriculture caste (4), Prestige caste (5) and Dominant caste (6)
- Occupation:** None (0), Labor (1), Caste occupation (2), Business (3), Independent profession (4), Cultivation (5) and Service (6)
- Education:** Illiterate (0), Can read only (1), Can read and write (2), Primary (3), Middle (4), High school (5), Graduate (6) And above (7)
- Social Participation:** None (0), Member of one organization (1), Member of more than one organization (2), Office holder (3) and Wider public leader (6)
- Land:** no land (0), < 1 acre (1), 1-5 acres (2), 5-10 acres (3), 10-15 acres (4), 15-20 acres (5) and >20 acres (6)
- House:** No home (0), Hut (1), Katcha house (2), Mixed house (3), Pucca house (4) and Mansion (5)
- Farm power:** No drought animal (1), 1-2 drought animals (2), 3-4 drought animals (4) and 5-6 drought animals (6)
- Material Possession:** Bulloc cart (0), Cycle (1), Radio (2), Chairs (3), Mobile Phone (4), Television (5) and Refrigerator (6)
- Family Type:** Single (1), Joint (2), Extended (3), Size: Up to 5 (2) and Distinctive features (2)12

For interpretation of the Socio economic status add score for nine items.

Table 3: Udai Pareek Ses Scale1

SYMBOL	CATEGORY	SCORES ON THE SCALE
A	Upper Class	Above 43
B	Upper – middle Class	33 – 42
C	Middle Class	24 – 32
D	Lower – middle Class	13 – 23
E	Lower Class	Below 13

Advantages: the variables included in scale were found to be significant in indicating socio economic status of rural families. The variables included in the scale are such that information can be easily collected about these. The items on which it would be difficult to collect information, like the item of income, expenditures etc. were not included in the scale. So, the data collected with the scale may be more valid.

Limitations: most of the villagers will be illiterate or semiliterate; self-administration of the scale may not be possible.

Table 4: Modified Udai Pareek Scale [2]

Components	Score	Components	Score
Caste		Social participation	
Schedule caste	1	None	0
Lower caste	2	Member of one organization	1
Artisan caste	3	Member of more than one organization	2
Agriculture caste	4	Office holder in such an organization	3
Prestige caste	5	Wide public leader	4
Dominant caste	6	House	
Occupation		No house	0
None	0	Hut	1
Labourer	1	Kutch house	2
Caste occupation	2	Mixed house	3
Business	3	Pucca house	4
Independent profession	4	Mansion	5
Cultivation	5	Farm power	
Service	6	No draught animals	1
Education		1-2 draught animals	2
Illiterate	0	3-4 draught animals	4
Can read only	1	5-6 draught animals	6
Can read and write	2	Material possessions	
Primary	3	Bullock cart	0
Middle	4	Cycle	1
High school	5	Radio	2
Graduate	6	Chairs	3
And above	7	Mobile phone	4
Land		Television	5
No land	0	Refrigerators	6
Less than 1 acre	1	Family type	
1-5 acre	2	Single	1
5-10 acre	3	Joint	2
10-15 acre	4	Extended	3
15-20 acre	5	Siye up to 5	2
20 and above	6	Any other distinctive features	2
Grade	Category	Score on scale	
A	Upper class	Above 43	
B	Upper middle class	33-42	
C	Middle class	24-32	
D	Lower middle class	13-23	
E	Lower class	Below 13	

- **Kuppuswamy Classification (1976) [1]**

Socioeconomic

Kuppuswamy scale is widely used to measure the socio-economic status of an individual in urban communities. It is based on three variables namely education, occupation and income.[13] Letter on

modification of Kuppuswamy scale were done, where the education, occupation of head of the family and income per capita per month was used. Mishra et al have suggested an economic revision of Kuppuswamy's scale.

This scale consists of composite scores of education and occupation of the head of the family along with monthly income from all the sources of the family. It yields a score of 3 – 29 and it classifies the study population into high, middle and low SES. Of the three variables, education and occupation of the head of the household do not change frequently with time. However, the steady inflation and the resultant devaluation of the rupee necessitate periodic revisions of the income variable. The changes in the income scale are proportional to the change in AICPI. The AICPI values are interpreted with reference to a particular base year. The previous base years were 1960, 1982 and at present 2001 year is considered as base year.

Kuppuswamy's socioeconomic classification is based on the following factors:

1. The education
2. Occupation of head of the family
3. Income per capita per month

Modification for February 2016 Current income groups = Original family income groups of Kuppuswamy (1976) X All India Consumer Price Index (AICPI) X 0.0735 (multiplication factor) 15. All-India average consumer price index numbers for Industrial Workers (Base 2001=100) shows the current price index as 267 on February 2016[9]. As Kuppuswamy's scale composed of education, occupation of head of the family and income per capita per month more accurately depicts the Socio economic status of the individual than BG Prasad's classification that takes into consideration only the income as a variable.

Advantages: As Kuppuswamy's scale composed of education, occupation of head of the family and income per capita per month more accurately depicts the Socio economic status of the individual than BG Prasad's classification that takes into consideration only the income as a variable.

Limitations: As AICPI value will be updated at frequent intervals there is need for simultaneous updating of all socio-economic classifications which consider income as a parameter. The income part is considered to be the total income of the family and no consideration is given to size of the family: a

small family with a particular income will have higher SES status than a bigger sized family with similar income.

Table 1: Occupation of the Head of the family

S. No.	Occupation of the Head	Score
1	Legislators, Senior Officials & Managers	10
2	Professionals	9
3	Technicians and Associate Professionals	8
4	Clerks	7
5	Skilled Workers and Shop & Market Sales Workers	6
6	Skilled Agricultural & Fishery Workers	5
7	Craft & Related Trade Workers	4
8	Plant & Machine Operators and Assemblers	3
9	Elementary Occupation	2
10	Unemployed	1

Table 2: Education of the Head of the family

S. No.	Education of the Head	Score
1	Profession or Honours	7
2	Graduate	6
3	Intermediate or diploma	5
4	High school certificate	4
5	Middle school certificate	3
6	Primary school certificate	2
7	Illiterate	1

Table 3: Total monthly income of the family

S. No.	Updated Monthly Family Income in Rupees (2012)	Updated Monthly Family Income in Rupees (2018)	Updated Monthly Family Income in Rupees (2020)	Updated Monthly Family Income in Rupees (2021)	Score
1	≥ 30,375	≥ 126,360	≥ 199,862	≥ 123,322	12
2	15,188–30,374	63,182–126,359	99,931–199,861	61,663–123,321	10
3	11,362–15,187	47,266–63,181	74,755–99,930	46,129–61,662	6
4	7594–11,361	31,591–47,265	49,962–74,755	30,831–46,128	4
5	4556–7593	18,953–31,590	29,973–49,961	18,497–30,830	3
6	1521–4555	6327–18,952	10,002–29,972	6,175–18,496	2
7	≤ 1520	≤ 6326	≤ 10,001	≤ 6174	1

Table 4: Kuppuswamy socio-economic status scale 2021

S. No.	Score	Socioeconomic Class
1	26–29	Upper (I)
2	16–25	Upper Middle (II)
3	11–15	Lower Middle (III)
4	5–10	Upper Lower (IV)
5	<5	Lower (V)

- S.C Tiwari Et Al Scale (2005) [1]

The scale consisted of seven profiles. The family could be placed in any of the five mutually exclusive sub-categories of each profile. Each profile contained five alternatives. [16] To keep this scale valid for a long period, the alternatives given in the series profiles of the scale should be redefined from time to time preferably after every five years.

Scale was updated in 2010 by S.C. Tiwari and Ambrish Kumar.

First profile: House profile - two sub parts Land area - includes constructed + unconstructed area and House type - covers different type walls, floorings and a roof of a house.

Second profile: Material possession profile - two sub parts Household gadgets – will be defined according to the quantity and total cost of the gadgets and Conveyance facility – common household possession and conveyance facility will be included according to their average cost.

Third profile: Educational status - achieved by those members of the family who have crossed the school going age. Weighted scores for achieved educational status were given, e.g., ‘0’ for illiterate and ‘10’ for higher studies (Ph.D., M.D., M.S., etc.).

Fourth profile: Occupational profile - occupation of the family members. Weighted scores for achieved occupational status were given, ‘0’ for no gainful employment and ‘10’ for class-I or equivalent jobs (senior professionals, graduate, post graduate teachers, high profile farmers and businessmen, political leaders, etc.).

Fifth profile: Per capita income of the family - total family income from all sources divided by total number of family members. Per capita income of Rs. 500/- and below got a score of 2, and more than Rs. 15,000/- in urban and more than Rs. 10,000/- in rural got a score of 10.

Sixth profile: Possessed land/House cost profile - defined according to the cost of land owned or cultivated by the family. ‘No land/house’ will get a score of ‘0’ while the total cost being more than Rs. 50,00,000/- will get a maximum score of 10.

Seventh profile: The social profile - two sub parts Understanding - defined according to the knowledge of social issues and Participation - defined according to their involvement in social activities. The social issues and the activities were classified into five type’s viz. religious-cultural, developmental, educational, health promotional, and political. No

participations or understanding will be scored ‘0’ and participation/understanding will get a score of ‘2’. Scoring in the scale:

All the seven profiles were equally weighted, each having a maximum score of 10. Up to sixth profile, every alternative had only one weight age score that ranged from 2 to 10. The seventh profile was additive in nature. Since the first two profiles (house and material possessions profiles) had two sub parts each, the weighted score given against the alternatives in these two sub parts should be added first and then divided by 2 to arrive at the final score.

For deciding the final score on educational profile, summation of weighted score achieved by individuals was divided by total number of family members who were getting education or had completed education.

Similarly, summation of weighted scores achieved by family members on occupational profile should be divided by the same number of individuals to arrive at the final score on the occupational profile. Scoring on the economic and possessed land cost profile directly gives the final score. Scoring on the social profile was additive in nature. The score obtained on every reported alternative in each sub-profile was first added up. The added scores of both these two sub-profiles were again added and divided by 2 to arrive at the final score.

SES categories and the score range: Once the information on the seven profiles was collected, scored and added, the SES categories could be derived by the score range using inclusive method. Since the cost of living index varies from city to city, to make this scale applicable countrywide, the score range was classified into five types according to the different categorization of the city based on Central Govt. city compensatory allowance rules [11].

• **O.P Agarrawal Et Al 2005 [1]**

The scale consisted of 22 items which includes:

1. Monthly per capita income from all sources (total monthly income /no. of family members)
2. Education of either husband or wife who is more educated among them
3. Occupation of husband, otherwise wife.
4. Family possessions
5. Living in a type of house
6. Possession of a vehicle or equivalent
7. No. of earning members in the family
8. No. of children head of the family has/had
9. Facility of some essentials in the family (tap water supply and electricity)

10. Education of children (in relation to head of the family)
11. Employment of a domestic servant at home
12. Type of locality the family is residing
13. Caste of the family
14. Members of family gone abroad in last three years (official or personal)
15. Possession of agricultural land for cultivation
16. Possession of non-agricultural land/land for housing or other type of land
17. Presence of milch cattle's in the family for business or non-business purposes
18. Presence of non milch cattle's or pet animals in the family
19. Besides the house in which the family is living, the family owns other house or shop or shed etc. of any size whether given on rent or not
20. Positions held (besides the positions as employee) by any one member in the family
21. Parental support in the form of non-movable property
22. Total amount of income tax paid by the family (include all the earning members IT) Suitable weight age was given to each item and scoring for each item was based on a scale ranging from 2 to 9.

For item number 4 presence of each item will carry score of 1 with a maximum score of 10. The maximum aggregate score was 100. Based on the final score, the socio-economic state of the family is divided into six socio-economic categories.

Table 9: Scoring System O P Aggarwal Et Al [1]

Sl.NO	Social Status	Score
1	Upper High	>76
2	High	61-75
3	Upper Middle	46-60
4	Lower Middle	31-45
5	Poor	16-30
6	Very Poor or Below Poverty Line	<15

Conclusion

Almost all community based studies focus on socio economic stratification, which is the key parameter for proper understanding the affordability of the community health services, amenities and their purchasing capacity. In the present day situations social scientists and researchers need economic revision of income variable in SES. The present review is a step towards providing useful information on commonly used socioeconomic scales their utility, advantages and limitations.

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