

Educational Forum

Socio-economic status scales updated for 2017

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ABSTRACT

The health status of any country depends on the socio-economic status (SES) and the per capita income of its citizens. The SES also decides the affordability and utilization of the health facilities. Constant changes in the price of goods in the country due to inflation make it mandatory to constantly update the income-based socioeconomic scales. This paper attempts to provide updates in Kuppuswamy, B.G. Prasad and Udai Pareek socioeconomic scales for 2017.

Keywords: Kuppuswamy, Prasad, Socioeconomic, Udai Pareek

INTRODUCTION

Socio economic status (SES) refers to an individual's position within a hierarchical social structure, which is one of the important determinants of health status. Composite scales are generally used to measure the SES, which has a combination of social and economic variables. There is no direct measure of the social status of an individual; therefore, an attempt had been made by many eminent researchers and social scientists in the past to formulate a composite index to measure it. Several methods or scales have been proposed for classifying different populations by socioeconomic status: Rahudkar scale 1960, Udai Parikh scale 1964, Jalota Scale 1970, Kulshrestha scale 1972, Kuppuswamy scale 1976, Shrivastava scale 1978, Bharadwaj scale 2001.

The most commonly used scales for measuring socioeconomic status are modified BG Prasad scale, Kuppuswamy scale, and Uday Pareek scale used for both urban and rural areas, urban areas, and rural areas, respectively.¹ However, social transformation and fast-growing economy have rendered these scales ineffective

in measuring the SES at present. Hence considering present factors they have been revised.

Kuppuswamy's socio-economic status scale

The modified Kuppuswamy scale is commonly used to measure SES in urban and peri-urban communities. The Kuppuswamy scale was devised by Kuppuswamy in 1976 and is based on a composite score considering the education and occupation of the head of the family along with monthly income of the family, which yields a score of 3-29. This scale classifies the study populations into high, middle, and low SES, as shown in the Table 1.² Usually education and occupation of head of the family are not changeable with time. However, the income ranges in the scale lose their relevance following the depreciation in the value of the Rupee.^{3,4} Therefore, it is needed to update the scale regularly for socioeconomic classification of study populations.

The changes in the income scale are proportional to the change in the Consumer price index numbers for industrial workers-CPI (IW). The CPI values are

interpreted with reference to a base year. The previous base years were 1960, 1982 and 2001. The latest CPI-(IW) available for January 2017 has been calculated taking 2001 as the base year. To begin with we calculated

the income scale for the selected years 1982 and 2001 which coincides with change in base year for calculation of CPI by applying the appropriate conversion factors on the original scale.

Table 1: Modified Kuppuswamy scale (proposed updating for January 2017).

Education of head of family		Score		
Profession or honours		7		
Graduate or postgraduate		6		
Intermediate or post high school diploma		5		
High school certificate		4		
Middle school certificate		3		
Primary school certificate		2		
Literate		1		
Occupation of head of family		Score		
Profession		10		
Semi-profession		6		
Clerical, Shop-owner		5		
Skilled worker		4		
Semi-skilled worker		3		
Unskilled worker		2		
Unemployed		1		
Monthly income of family				
In 1976	In 1998	In 2007	In 2017 (January 2017 CPI)	Score
>=2000	13408	19844	>41430	12
1000-1999	6704-13407	9922-19843	20715-41429	10
750-999	5028-6703	7441-9921	15536-20714	6
500-749	3352-5027	4961-7440	10357-15535	4
300-499	2011-3351	2976-4960	6214-10356	3
101-299	677-2010	1002-2975	2092-6213	2
<=100	<676	<1001	<2091	1
Socioeconomic class				Total score
I	Upper			26-29
II	Upper middle			16-25
III	Lower middle			11-15
IV	Upper lower			5-10
V	Lower			<5

The monthly income of family (in rupees) for 1976 was calculated according to base year 1960=100 (using the price index for 1976 as 296), and this rose to 490 in the year 1982.^{5,6}

Price index for 1976 by 1982 base= $100/490 \times 296 = 60.408$, Conversion factor for 1982= $296/60.408 = 4.90$

Mishra revised the Kuppuswamy index in 1998 as per the price index year 1998 (using the price index for 1998 as 405) using base year 1982 = 100, which was again later revised by Kumar et al. by keeping 2001(price index 458) as the base year according to the 1982 base.^{5,7} Price index for 1998 by 2001 base= $100/458 \times 405 = 88.428$,

Price index for 2017 (by 2001 base)⁶ = 274, Conversion factor for January 2017= $274/88.428 = 3.09$

Multiplying the income scale of 2001 by 3.09 updates the scale for January 2017 (Table 1). Kuppuswamy' scale however has limitations as there is an overemphasis on income rather than educational and occupational factors. Education and occupation factors also need to be revised by using suitable survey methods.

B.G. Prasad's Socio-economic status scale

BG Prasad's classification is used in both urban and rural areas and is based on per capita monthly income. It was introduced in 1961 considering the base of Consumer Price Index (CPI) for 1960 as 100.⁸ The scale was

modified in 1982 and 2001 by introducing linking factors to convert CPI (1982 and 2001) from the new base of 100 to the old base CPI (1960). The linking factors for 1982 and 2001 were 4.93 and 4.63, respectively.⁶

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 (proposed updating for January 2017).

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

Table 3: Udai Pareek revised scale.

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	

Where 4.63 (1982) and 4.93 (2001) are the linking factors given by the Labour Bureau of India. The updated values for the per capita monthly income (in Rs. /month) for January 2017 are given in Table 2.⁸

The advantage with BG Prasad's classification is that it takes into consideration only the income as a variable and is easy to calculate and it is applicable both for urban and rural families. As price index value will be updated at frequent intervals there is need for simultaneous updating of this socio-economic classification and this is a limitation.

Udai Pareek' socio-economic status scale

It attempts to examine the socio-economic status for rural population. This scale has nine factors which assess the socio-economic status of the individual as shown in Table 3.⁹ After filling the information, and scoring the individual items, the total score is summed up and interpreted in terms of the class as per the Table 3.

Income is a sensitive issue for the families and they may not be comfortable in discussing it with the interviewer. Udai Pareek scale does not collect information on income, so the data collected with the scale may be more valid.

CONCLUSION

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 present paper is a step towards providing useful updated information on commonly used socioeconomic scales. The updated socio-economic scales should be used by researchers in community health studies to determine the socioeconomic status of the study subjects precisely.

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REFERENCES

1. Holyachi SK, Santosh A. Socioeconomic status scales-an update. *Ann Community Health.* 2013;1:24-7.
2. Kuppaswamy B. Manual of socioeconomic status (Urban). 1st ed. Delhi: Manasayan; 1981:66-72.
3. Kumar P. Social classification-need for constant update. *Indian J Community Med.* 1993;18:2.
4. Aggarwal AK. Social classification: The need to update in the present scenario. *Indian J Community Med.* 2008;33:50-1.
5. Kumar N, Shekhar C, Kumar P, Kundu AS. Kuppaswamy's socioeconomic status scale- Updating for 2007. *Indian J Pediatr.* 2007;74:1131-2.
6. Labour Bureau; Ministry of Labour; Government of India. Linking factors between new series and old Series. (Last accessed on 2012 Aug 7). Available at http://labourbureaunew.gov.in/LBO_indnum.htm.
7. Mishra D, Singh HP. Kuppaswamy's socioeconomic status scale-a revision. *Indian J Pediatr.* 2003;70:273-4.
8. Prasad BG. Social classification of Indian families. *J Indian Med Assoc.* 1961;37:250-1.
9. Gururaj MS, Shilpa S, Maheshwaran R. Revised socio-economic status scale for urban and rural India-revision for 2015. *Socioeconomic. Scientific J Theory Practice Socio-economic Development.* 2015;4(7):167-74.

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