Updating Income Ranges for the Year 2015: Kuppuswamy's Socio-Economic Status Scale

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Abstract

Kuppuswamy's socio-economic status scale is an important tool to measure socio-economic status of families in urban areas. It is used by students and researchers alike in India for hospital and community based research. This scale takes into account in education, occupation and income of the family to categorize families into upper, middle and low socioeconomic status. The All India Average Consumer Price Index for Industrial Workers (CPI-IW) is used to calculate the revised updated categories of income for February 2015.

Keywords: Kuppuswamy's Socio-Economic Status Scale; All India Average Consumer Price Index; Family Income Per Month.

Introduction

Several studies namely hospital and community based require assessment of socio-economic status of an individual/family. This reflects the affordability of health services, necessities and purchasing power of the same. 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[1-7]. However, social transformation and fast growing economy have rendered these scales ineffective in measuring the SES over the years.

Kuppuswamy's socio-economic status scale is an important tool to measure socioeconomic status of families in urban areas. It was first proposed by Kuppuswamy in the year 1976 [8] Table 1. This scale takes into account education, occupation and income of the family to categorise families into upper, middle and low socioeconomic status. It is used by students

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and researchers alike in India for hospital and community based research. Mishra D and Singh HP [9] in their article on revision of Kuppuswamy's Socioeconomic status scale have pointed that an income scale usually has relevance only for the period under study. They further clarified that due to the steady inflation and consequent fall in the value of the rupee, the income criteria in the scale lose their relevance. There is an unprecedented demand from researchers for the updated version of this because changes in inflation rate effects monthly income range scores. The year wise reference indices are shown in Table 2. It tell us how index and base year have seen changes for reference index and has been used to calculate inflation based conversion factor.

Mishra D therefore, worked on this issue of revision of family's monthly income in rupees for the year 1976, when the price index was 296 according to base year 1960=100. Then he revised it for the year 1998 using base year 1982=100. The base year has been changed from 2001.

Kumar N et al, [10] took into account the new base year 2001= 100 for revision of family's monthly income in rupees for the year 2007. Conversion factor for 1982 base year has changed with considering 2001 as base year. To get the updated conversion factor the following exercise is adopted as follows.

Price index by old base for 2001 = 458

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(A)	Education	Score
1.	Professors or honors	7
2.	Graduate or post graduate	6
3.	Intermediate or post high school diplon	na 5
4.	High school certificate	4
5.	Middle school certificate	3
6.	Primary school certificate	2
7.	Illiterate	1
(B)	Occupation	Score
1.	Profession	10
2.	Semi-profession	6
3.	Clerical, shop-owner, farmer	5
4.	Skilled worker	4
5.	Semi-skilled worker	3
6.	Unskilled worker	2
7.	Unemployed	1
(C)	Family income per month in Rs. (1976)	Score
1.	= 2000	12
2.	1000 - 1999	10
3.	750 - 999	6
4.	500 - 749	4
5.	300 - 499	3
6.	101 - 299	2
7.	= 100	1
Total Score	5	Socio-economic class
26-29		Upper (I)
16-25	Middle	Upper middle (II)
11-15		Lower middle (III)
5-10	Lower	Upper lower (IV)
<5		Lower (V)

 Table 1: Original Kuppuswamy's socio-economic status scale

 Table 2: Year-wise reference indices

Year	Reference index	
1960	100 (base)	
1976	296	
1982	490 – 100 (new base, applied by Mishra D et al [2], for updating in 1998)	
1998	405	
2001	458 – 100 (new base applied by Kumar N et al [3], for updating in 2007)	
Price index by	y old base for 2001 = 458	
Assuming pri	ce index by new base for $2001 = 100$	
Price index b	y old base for 1998 was 405	
Price index b	y new base for $1998 = 100/458 \times 405 = 88.42$	

Price index by old base for 2001 = 100

Price index by old base for 1998 = 405

Price index by new base for 1998 = 100/458 x405 = 88.428

For calculating the conversion factor for the year 2007, the All India Average Consumer Price Index for Industrial Workers (CPI-IW) has to be divided by 88.428. All India Average Consumer Price Index Numbers for Industrial Workers (Base 2001=100) shows general index as 128 on April 2007 (http: // labourbureau.nic.in/indexes.htm-Labor Bureau Government of India, as per survey done in 1999-2000).

The conversion factor for year 2007= 128/ 88.428=1.45. The income ranges for the year 2007 was obtained by multiplying 1998 income ranges by the conversion factor 1.45 to get the revised Kuppuswamy Socioeconomic status scale for the year 2007.

Kumar N et al, [11] again revised the socioeconomic status in the year 2012 taking the base year 2001= 100 for revision of monthly income in rupees for the year 2012.

Conversion factor takes into account of hike in original price index as well as its change of base value as 100. Therefore conversion factor needs to be calculated every year using the All India Average Consumer Price Index Numbers for Industrial Workers (CPI-IW) [12]. It can be done by the exercise done below for a few years in serial.

Year	CPI-IW	Conversion factor
2008	147	147/88.428=1.66
2009	169	169/88.428=1.91
2010	181	181/88.428=2.05
2011	185	185/88.428=2.09
2012	198	198/88.428=2.24
2013	226	226/88.428=2.55
2014	242	242/88.428= 2.74

The revised income criteria for the year 2013 was obtained by multiplying 1998 income criteria by the conversion factor 2.55 to get the revised Kuppuswamy Socioeconomic status scale for the year 2013. So also for the year 2014 using the conversion factor 2.74 we get the revised scale for the year 2014.

For the needs of present research it has become the need of the hour to provide an updated version of the Kuppuswamy Socioeconomic status scale. We therefore attempted to revise the income groups for the year 2015 to redefine Kuppuswamy's socioeconomic status scale for the year 2015 taking the All India Average Consumer Price Index Numbers for Industrial Workers (CPI-IW) in the month of February [12]. It is calculated as 253/88.428=2.86. This conversion factor obtained was multiplied to the income criteria of the year 1998 for getting the new income criteria for the year 2015 and therefore the new socioeconomic status scale for the year 2015.

.Score	1998	2013	2014	2015
12	13500	34425	36990	38610
10	6750-13499	17212-34424	18495-36989	19305-38609
6	5050-6749	12877-17211	13837-18494	14443-19304
4	3375-5049	8606-12876	9248-13836	9653-14442
3	2025-3374	5163-8605	5549-9247	5792-9652
2	676-2024	1724-5162	1852-5548	1933-5791
1	675	1723	1851	1932

Critical review

Figures were rounded where applicable. The shortcomings however remain as with the income, the educational and occupational scales also need to be revised regularly. With the increasing prices or inflation the income grading needs to be updated on a regular basis for current research. The most commonly used and the most appropriate AICPI for revision of socioeconomic status classifications has been AICPI (IW) as it represents the working class family [13]. The drawback of using this or the other CPIs like the All India Average Consumer Price Index for Agricultural laborers (AICPI for AL base 1986-1987), the All India Average Consumer Price Index for Rural laborers (AICPI for RL base 1986-1987), and the Consumer Price Index for Urban non-manual employees (CPI for UNME base 1984-1985) used to measure inflation for four different sections of labor force [14] was that they did not include all the sections of the population and it could not reflect the effect of inflation on the entire population of the entire country. Therefore to measure CPI for the entire country in a comprehensive manner covering the entire rural and urban populations, the Central Statistics Office (CSO) of the Ministry of Statistics and Program Implementation began compiling the following series of CPI: CPI for the entire urban population (CPI Urban)

base 2010, CPI for the entire rural population (CPI Rural) base 2010, and Consolidated CPI for the urban and rural population having the base 2010 [14, 15]. These indices when used would probably give a more accurate picture of socioeconomic status for the entire urban and rural population and for the country as a whole.

Conclusion

Application of a proper classification of socioeconomic status remains one of the main challenges for a researcher to classify the study population in his or her dissertations and scientific papers.

In view of the dynamic economic situation and also because of the changing family structure and values it is necessary to incorporate appropriate changes to the classification as and when as possible so as to remain relevant to the present scenario. The article is a small and a humble attempt in this direction.

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