

## Original Research Article

# Revised Kuppuswamy and B G Prasad socio-economic scales for 2016

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### ABSTRACT

**Background:** Socio-economic scales are integral part in the assessment of social class of an individual/family, which can have an influence on disease causing factors. It is also vital for consideration when customising health education to the target audience. Socio-economic scales are dependent on evaluation of income and need to be updated with changing consumer price index. The objective of the study was to revise the socio-economic scales of Kuppuswamy and B G Prasad, taking into consideration the revision in consumer price index (industrial workers).

**Methods:** The socio-economic scales were revised on the basis of updated CPI (IW) for the month of August 2016, using an online tool.

**Results:** The updated Kuppuswamy and B G Prasad scales for the year 2016 were obtained using revised CPI (IW) and a simple online tool.

**Conclusions:** Regular updating of socio-economic scales which depend on income and are therefore susceptible to changes, due to revisions in consumer price index, is necessary to maintain the validity of these scales, which are used widely in community surveys and social studies.

**Keywords:** Socioeconomic scales, Kuppuswamy, B G Prasad, Social class

### INTRODUCTION

Socio-economic status is defined as an individual's or group's position within a hierarchical social structure. Socioeconomic status depends on a combination of variables, including occupation, education, income, wealth, and place of residence.<sup>1</sup> Calculation and assessment of Socioeconomic class of a family is an important aspect of the family study, undertaken by students of community medicine. Socio-economic scales are also widely used in community surveys and studies to assess the socioeconomic status of the family, which is further used as a variable to understand its influence on various diseases and risk factors.

While, there are many Socio-economic scales available, like Rahudkar scale 1960, Udai Parikh scale 1964, Jalota Scale 1970, Kulshrestha scale 1972, Kuppuswamy scale

1976, Shrivastava scale 1978 and Bharadwaj scale 2001, two scales particularly are very popular in India—Kuppuswamy (1976) and B G Prasad (1961) scales.<sup>2,3</sup> Modified Kuppuswamy scale uses education and occupation of the head of the family and monthly family income to calculate the socio-economic scale. Modified B G Prasad scale uses only monthly per capita income to derive the social class the person or family belongs to.

A comparison of the two scales is note-worthy as given in Table 1. Since both these scales, use the consumer-price index (industrial workers) [CPI (IW)], which changes and is updated every month, it is important to use the current CPI-(IW) for the income ranges. This study was done to update both these scales using the revised CPI (IW) and an online tool so that these scales are valid for assessing socio-economic status in 2016.

**Table 1: Comparison of Kuppuswamy and BG Prasad socio-economic scales.**

Criterion	Modified Kuppuswamy scale	Modified B G Prasad scale
Area	Applicable to only urban and peri-urban areas	Applicable to both urban and rural areas
Indicators	Education and occupation of head of the family and monthly family income is taken into consideration	Monthly per capita income is the only indicator
Individual/family	Applicable to families and not individuals	Applicable for both families and individuals
Simplicity	More complex	Relatively simpler

## METHODS

In this study, the values of income ranges for both, Kuppuswamy and BG Prasad scales, have been updated using the latest CPI(IW) figure available from Labour Bureau, Govt of India.<sup>4</sup> The calculation of income ranges, using CPI (IW) figure, was done using online calculation tool.<sup>5,6</sup>

## RESULTS

On the basis of update done using the revised CPI-IW, the new income ranges were obtained and Kuppuswamy as in Table 2 and 3 and B G Prasad scales as given in Table 4 were updated for the year 2016. In Kuppuswamy's scale, the scores awarded to the education and the occupation of the head of the family remain unchanged. Similarly, in both the socio-economic scales, the interpretation of the scores, in terms of the social classes is also unchanged.

**Table 2: Scoring for modified Kuppuswamy's socio-economic status scale, revised for 2016.**

Education	Score
Professional or honors	7
Graduate or postgraduate	6
Intermediate or post-high school diploma	5
High School Certificate	4
Middle School certificate	3
Primary School certificate	2
Illiterate	1
Occupation	Score
Professional	10
Semi-Professional	6
Clerical, Shop Owner, Farmer	5
Skilled Worker	4
Semi-Skilled Worker	3
Unskilled Worker	2
Unemployed	1
Family income per month in Rupees (August 2016 current price index for industrial workers)	Score
≥ 42,876	12
21,438-42,875	10
16,078-21,437	6
10719-16,077	4
6,431-10,718	3
2,165-6,430	2
≤2164	1

**Table 3: Kuppuswamy's classification of socio-economic classes according to score.**

Class	Total Score
Upper class	26-29
Upper middle class	16-25
Lower middle class	11-15
Upper lower class	5-10
Lower class	<5

**Table 4: Revised Modified BG Prasad socioeconomic classification scale, 2016.**

Socioeconomic class	Per capita monthly income
Upper Class	≥ Rs. 6346
Upper Middle class	Rs. 3173 -6345
Middle Class	Rs 1904-3172
Lower middle class	Rs. 952-1903
Lower class	Rs. ≤951

## DISCUSSION

Regular updating of these socio-economic scales is vital to maintaining their validity in assessing the socio-economic status and finding the social class of individuals and families while conducting social studies.

### *Criticism of Kuppaswamy scale*

1. The income is taken as the total income of the family and this is independent of the size of the family, as a result of this, a large joint family with more income on account of more number of earning members may get a higher score as compared to a relatively well-off nuclear family with small family size and just one or two earning members.
2. Identifying the head of the family can be a tricky business, with considerations of age, authority, patriarchy, ownership, earning and legalities. As a result, inter-assessor variation can be huge when the head of the family is identified differently by different assessors.
3. Even, when the head of the family is correctly identified, the assessment of educational and occupational level may be amenable to error, in view of no clear definition and classification of various occupations.
4. While the income ranges are updated regularly, no update has been done of evaluation of various educational and occupational levels.

### *Criticism of B G Prasad scale*

1. It only takes into consideration the per capita income of the family; so can it be really called a socio-economic scale or just an economic scale? Is income the sole determinant of the socioeconomic status of a person?
2. There is no differentiation done in the scales with respect to income and wealth. In some cases, a family may have assets with value, but still have low incomes. In such a case, they will be classified in lower classes.
3. Income may vary from month to month and there is no clarity on which income is to be taken.
4. Secondly, while the scale uses CPI (IW), it claims its applicability for both urban and rural areas, while completely ignoring the CPI for rural laborers and agricultural laborers.

5. It's too simplistic, one size fits all approach raises questions about its validity.

In spite of these disadvantages, both these scales have stood the test of time for nearly three to four decades and are still widely used, further necessitating their regular updating.

## CONCLUSION

Regular updating of socio-economic scales which depend on income and are therefore susceptible to changes, due to revisions in Consumer Price Index, is necessary to maintain the validity of these scales, considering that these scales are used widely in community surveys and social studies.

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