

Original Research Article

Updated socioeconomic classification: revised modified B. G. Prasad and modified Kuppuswamy scales for January 2025

Roshan Jabeen^{1*}, Karthika P.²

¹Department of Community Medicine, Hamdard Institute of Medical Sciences and Research, New Delhi, India

²Department of Community Medicine, Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh, Uttar Pradesh, India

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*Correspondence:

Dr. Roshan Jabeen,

E-mail: roshanameena5@gmail.com

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ABSTRACT

Background: Socioeconomic status (SES) is critical in determining health outcomes, access to healthcare, and overall well-being. Accurate SES classification is essential in epidemiological research and health planning. The B. G. Prasad and Kuppuswamy scales are widely used for SES classification in India, but they require periodic updates to reflect economic changes. This study presents the updated income classifications for the modified B. G. Prasad and modified Kuppuswamy scales for 2025.

Methods: The SES scales were revised by incorporating the latest consumer price index for industrial workers (CPI-IW) data for January 2025.

Results: The updated modified Kuppuswamy and modified B. G. Prasad scales for 2025 were obtained using revised CPI (IW).

Conclusions: This update ensures that these scales remain relevant, aiding researchers and policymakers in accurately assessing socioeconomic disparities.

Keywords: SES, Socioeconomic class, Consumer price index, Inflation, Income, Social class

INTRODUCTION

Socioeconomic status (SES) is a fundamental determinant of health, influencing an individual's access to healthcare, nutrition, education, and overall well-being. It is a key indicator in epidemiological studies, aiding in the identification of health disparities and the formulation of public health policies.^{1,2} In India, two commonly used SES classification systems are the modified B. G. Prasad scale and the modified Kuppuswamy scale, both of which require periodic updates to reflect economic changes.^{1,3}

The B. G. Prasad scale, introduced in 1961, is primarily based on per capita monthly income and is applicable to both urban and rural populations.⁴ As inflation and

economic conditions fluctuate, revisions using the CPI-IW—a measure of price changes in essential goods and services—are necessary to maintain the scale's relevance.^{1,3} The labour bureau of India publishes CPI-IW, making it the standard reference for updating income classifications.^{2,5}

Conversely, the modified Kuppuswamy scale, originally developed in the late 1970s, is urban-focused and incorporates three components: the education level of the head of the family, occupational status, and total family income. While education as well as the occupation remains relatively stable, the income component is highly sensitive to the inflation and the requires frequent updates.^{3,5} CPI-IW is widely regarded as the most

appropriate index for updating the income thresholds in this scale.^{3,5,6}

Given the role of SES in health planning, research, and policy formulation, it is essential to ensure that these scales accurately represent contemporary economic conditions. This article provides updated modified B. G. Prasad and modified Kuppuswamy scales for 2025, ensuring their continued applicability in socioeconomic assessments and public health research.

METHODS

Modified B. G. Prasad scale

The B. G. Prasad scale classifies SES based on per capita monthly income. Its ease of use has made it a standard classification tool in epidemiological research and community health assessments in both rural and urban areas. Since its inception, the scale has undergone multiple revisions to account for inflation, utilizing CPI-IW as a reference for adjustments.^{1,3} This scale remains widely adopted in public health studies, particularly those examining healthcare access, socioeconomic disparities, and disease prevalence.^{3,5}

Calculation of modified B. G. Prasad scale (January 2025)

The B. G. Prasad scale classifies SES based on per capita monthly income into five classes: Class I (highest) to Class V (lowest). The original 1961 income ranges are updated using the cumulative CPI-IW from the 2016 base, consistent with modern practice. Historically, linking factors (LF) across base years (1960 to 1982: 4.93; 1982 to 2001: 4.63; 2001 to 2016: 2.88) have been used to adjust from 1961, but here we apply the January 2025 CPI-IW directly from 2016 ranges.⁷

The formula is:

Updated income values = Correction factor × old income value of 2016

$$\text{Correction factor} = \frac{\text{CPI-IW January 2025}_{2016}}{\text{Base Index}_{2016}}$$

Substituting the values,

$$\text{Correction factor} = 143.2 \div 100$$

This gives a correction factor of 1.432. The new income values were calculated by multiplying the correction factor by the income ranges of 2016 (Table 1).

Revised modified Kuppuswamy scale

The modified Kuppuswamy scale differs from the BG Prasad classification by integrating three key factors: education of the head of the family (score: 1-7), occupation of the head of the family (score: 1-10), and

total family income (score 1-12). This scale is extensively used in urban health research as it provides a multidimensional SES assessment. While the education and occupation components remain stable, the income component requires frequent updates due to inflationary trends.^{2,4} This scale is handy in hospital-based and social research settings, offering a comprehensive perspective on SES and its impact on health outcomes.^{2,3}

Education

In the modified Kuppuswamy scale, the education level of the head of the family is taken for determining SES. When assigning the education score, only the highest completed educational qualification of the family head is considered; degrees or courses currently being pursued are not included in this assessment.

Occupation

In modified Kuppuswamy scale, the occupation of head of the family is taken into consideration. While assigning occupation scores, for a retired head of the family, the occupation score should reflect their last held position before retirement, and if the head of the family possesses a professional degree but has never been employed in that capacity, the occupation score should be assigned as 1, corresponding to "unemployed."

Income

For the modified Kuppuswamy scale, income categories are revised based on CPI-IW.^{3,4} The revised 2025 classifications are developed using income thresholds from 2016 adjusted to January 2025. The year-on-year (Y-o-Y) inflation rate is calculated as:

$$\begin{aligned} \text{Inflation rate (\%)} &= [(b-a) \times 100] \div a \\ &= [(143.2 - 138.9) \times 100] \div 138.9 \end{aligned}$$

Where, b=CPI of the current year (January 2025) and a=CPI of the previous year (January 2024)

The inflation rate for January 2025, calculated as the Y-o-Y change from January 2024 to January 2025 as per the labour bureau, government of India, is 3.10%. In this article, we are not calculating the new income values using the Y-o-Y inflation rate but instead, we considered the cumulative change in CPI-IW for the last 9 years from the base year 2016.

$$\text{Multiplication factor (MF)} = \frac{\text{CPI-IW}_{2025_{2016}} - 143.2}{\text{CPI-IW}_{2016} - 100} = 1.432$$

New income for 2025 = Original income × multiplication factor

The revised income values are derived by applying the multiplication factor of 1.432 to the income ranges from 2016.

A total score is determined by summing the scores for education, occupation, and income (Table 2 and 3) families are then categorized based on this overall score (Table 4).

RESULTS

On the basis of the update done using the revised CPI-IW, the new income ranges were obtained B. G. Prasad scales

as given in Table 1, were updated for the year 2025, and modified Kuppuswamy as in Tables 2-4.

In Kuppuswamy's scale, the scores awarded to the education and occupation of head of family remain unchanged.

Similarly, in both SES the interpretation of the scores in terms of social classes is also unchanged.

Table 1: Revised modified B. G. Prasad scale for January 2025 (Rupees/month).

Socioeconomic class	Original B. G. Prasad classification of 1961 (Income in rupees/month)	Modified B. G. Prasad classification for 2016 (rupees/ month)	Modified B. G. Prasad classification for January 2024 (rupees/ month)	Modified B. G. Prasad classification for January 2025 (rupees/ month)
I-upper	≥100	≥6,000	≥8,334	≥8,592
II-upper middle	50-99	3000-5,999	4,167-8,333	4,296-8,591
III-lower middle	30-49	1,800-2,999	2,500-4,166	2,578-4,295
IV-lower middle	15-29	900-1,799	1,250-2,499	1,289-2,577
V-lower	<15	<900	<1,250	<1,289

Table 2: Scoring for education and occupation of the head of the family as per modified Kuppuswamy scale.

Parameters	Score assigned
Education	
Professional degree	7
Graduate	6
Intermediate/ diploma	5
High school	4
Middle school	3
Primary school	2
Illiterate	1
Occupation	
Legislators, senior officials, managers	10
Professional	9
Technicians/associate professionals	8
Clerk	7
Skilled worker, shop and market sales workers	6
Skilled agricultural and fishery workers	5
Craft and related trade workers	4
Plant and machine operators and assemblers	3
Elementary occupation	2
Unemployed	1

Table 3: Total monthly income of the family for various years and scores.

Family income per month in rupees (1976)	Updated monthly family income in rupees (2016)	Updated monthly family income in rupees (Jan 2023)	Updated monthly family income in rupees (Jan 2024)	Updated monthly family income in rupees (Jan 2025)	Scores assigned
≥2000	≥41,986	≥55,758	≥58,319	≥60,125	12
1000-1999	20,993-41,965	27,879-55,749	29,160-58,309	30,063-60,095	10
750-999	15,745- 20,972	20,909-27,851	21,870-29,130	22,548-30,030	6
500-749	10,497-15,734	13,940-20,894	14,580-21,847	15,032-22,526	4
300-499	6,298-10,476	8,364-13,912	8,748-14,557	9,019-15,006	3
101-299	2,121-6,277	2,817-8,342	2,946-8,727	3,038-8,998	2
≤100	≤2,099	≤2,787	≤2916	≤3,006	1

Table 4: Modified Kuppuswamy classification of socioeconomic classes based on the scores.

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

DISCUSSION

The updated modified Kuppuswamy and modified B. G. Prasad SES scales are widely recognized tools in India. However, their effectiveness has diminished due to rapid economic growth and evolving social dynamics. To ensure their continued relevance, periodic updates to the income criteria are essential, driven by inflation as measured by the CPI-IW. This index is frequently used to adjust socioeconomic scales as it reflects the expenditure patterns of a typical working-class household.⁸

In this study, we updated the modified Kuppuswamy scale and modified B. G. Prasad scale using the CPI-IW for January 2025, reported at 143.2 by the labour bureau, ministry of labour and employment, government of India. In updating the modified Kuppuswamy scale, a key methodological distinction lies between cumulative inflation and Y-o-Y inflation. The Y-o-Y inflation rate for January 2025, at 3.10% (from CPI-IW 138.9 in January 2024 to 143.2), measures only the annual change over the past year.³ If applied directly to the 2016 base income ranges, it would significantly underestimate the economic shift, as it accounts solely for one year's inflation rather than the full period from 2016 to 2025. The cumulative approach, with a multiplication factor (MF) of 1.432, reflects the total cost-of-living increase over these nine years. Since we are modifying the modified Kuppuswamy scale-recalibrated with 2016 income ranges-and not the original 1976 scale, the chaining approach across multiple base years (e.g., 1960, 1982, 2001) is unnecessary. Similarly, for the modified B. G. Prasad scale, we applied the same MF of 1.432 to its 2016 per capita income ranges for updating. For both scales, the cumulative method is the correct and widely accepted approach, ensuring income thresholds align with long-term purchasing power rather than transient annual fluctuations.

In our analysis, we found several limitations in the application of both scales. For the modified Kuppuswamy scale, one major challenge is the accurate identification of the head of the household, which can vary based on the evaluator's perspective. Additionally, income-based classifications for both scales are often unreliable due to underreporting or overreporting of earnings, especially among informal workers whose wages fluctuate significantly. The B. G. Prasad scale, which is primarily based on per capita monthly income, fails to adjust for variations in family size, leading to discrepancies in

classification. A small nuclear family may receive a lower SES score than a larger joint family with multiple earners despite having similar economic constraints. Additionally, its per capita focus may overestimate SES in rural settings, where cash income is lower but in-kind resources are significant.⁹

Furthermore, both scales primarily rely on financial indicators and fail to consider broader determinants of socioeconomic well-being, such as access to healthcare, education, sanitation, and regional cost-of-living differences. The cost of living varies significantly across urban and rural areas, yet the scales do not account for these disparities. These factors suggest that while updating income criteria using CPI-IW is necessary, a more holistic approach incorporating additional indicators of human development is essential for a more accurate assessment of SES in contemporary India.

CONCLUSION

The periodic revision of the modified Kuppuswamy and modified B. G. Prasad SES scales using the cumulative CPI-IW adjustment ensures their economic relevance by reflecting the total cost of living increase since 2016. However, their reliance solely on income-based criteria limits their ability to accurately assess socioeconomic disparities. Future updates should incorporate multidimensional indicators such as education, healthcare access, and regional cost-of-living variations to provide a more comprehensive measure of socioeconomic status in India. Such enhancements promise not only greater accuracy but also improved equity in identifying vulnerable populations for targeted health interventions.

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