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## Short Communication

# Economic parameter of modified Kuppuswamy socioeconomic status scale for the year 2023

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### ABSTRACT

Socioeconomic status SES is one of the most important indicators to consider when assessing a family's health and nutritional status. It is a position that any person can achieve within a hierarchical social framework. Academicians and medical researchers have made several attempts in the past to create a collection of composite indices to assess an individual's or a family's socioeconomic status (SES) whether they reside in a rural or urban location. The Hollingshead, Nakao, and Treas, Blisshen, Carroll, and Moore, Tiwari, Kumar, and Agarwal, Jalota, and Kuppuswamy scales are a few of the notable scales. The scales have several factors that account for information about a person or a family. Among all the SES, the most widely used scale in India is 'The Modified Kuppuswamy SES'. Based on the total score of the Kuppuswamy scale, which ranges from 3-29, families are categorized into five classes, from upper class to lower class. Owing to constraints, the Kuppuswamy SES requires frequent updates for income levels that are dependent on shifting consumer price index (CPI) values, making the scale susceptible to changes over time. This paper aims to update and provide an "Updated Modified Kuppuswamy SES" for the year 2023.

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## 1. Introduction

The term socioeconomic status (SES) refers to the position that a person or family has in relation to the community's typical standards for cultural and material goods, income, and involvement in social activities.<sup>1</sup> It is a crucial factor in determining an individual's nutritional status, mortality, and morbidity since it affects the cost, acceptability, accessibility, and use of medical facilities. The disparities between socioeconomic position (SES) and health status follow a gradient, or a step-by-step pattern, between where one sits in an SES hierarchy and most health outcomes.

Even though not all health issues are correlated with socioeconomic class (a few diseases are more common in higher SES groups than in lower SES groups), the tendency

is persistent throughout time and is evident in both men and women of all ages across countries. However, recent studies have demonstrated that health disparities accumulate over a lifetime and have an impact on health at every stage of life. Poor social and economic circumstances early in life have a long-term effect on health.<sup>2</sup> Several socioeconomic status scales have been proposed in India for both urban and rural areas. The noteworthy include the Rahudkar scale (1960); B.J. Prasad (1961); Udai Parikh (1964); Jalota scale (1970); Kulshreshta scale (1972); Modified Kuppuswamy scale (1976); Shrivastava scale (1978); Bhardwaj scale (2001) & O. P. Aggarwal (2005).<sup>3</sup> The criteria that are most frequently utilized in these scales are total income, educational achievement, and occupation. In India, the most well-known and extensively used scale for determining the socioeconomic status of an individual or a family in urban areas is the "Modified Kuppuswamy SES Scale".<sup>4</sup>

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**Table 1:** Occupation of the head of the family

S. No.	Occupation of the Head	Score
1	Legislators, Senior Officers & Managers	10
2	Professionals	9
3	Technicians & 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 INR '₹' (2016)	Updated Monthly Family Income in INR '₹' (2021)	Updated Monthly Family Income in INR '₹' (2022)	Updated Monthly Family Income in INR '₹' (2023)	Scores
1	≥40430	≥123322	≥184376	≥249044	12
2	20210 - 40429	61663 - 123321	92191 - 184370	124489 - 249043	10
3	15160 - 20209	46129 - 61,662	68967 - 92185	93381 - 124488	6
4	10110 - 15159	30831 - 46128	46095 - 68961	62273 - 93380	4
5	6060 - 10109	18497 - 30830	27654 - 46089	37325 - 62272	3
6	2021 - 6059	6175 - 18496	9232 - 27648	12445 - 37324	2
7	≤2020	≤6174	≤9226	≤12444	1

**Table 4:** Kuppuswamy socio-economic status scale 2023

S. No.	Scores	Socio-Economic 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)

Originally intended to assess an individual's SES, the scale was later modified to assess the SES of a family rather than an individual. Kuppuswamy created the original scale in 1976. It has three index factors viz; education, occupation, and total income. Each parameter has been further divided into subgroups, and each subgroup has been given a score. The Kuppuswamy SES Scale categorizes families into five groups (upper class, upper middle class, lower middle class, upper lower class, and lower class) based on their overall score, which ranges from three to twenty-nine (03-29).<sup>3</sup> Yet, due to the dynamic nature of

macroeconomic indices viz; inflation, per capita, etc., the SES is ineffectual in reaching their main objective. To fulfill their objective of determining the SES of an individual or a family, they must undergo consistent changes over time. This work aims to update and provide an "Updated Modified Kuppuswamy SES" scale for the year 2023.

## 2. Revision of Income Parameters in Modified Kuppuswamy Scale

The Kuppuswamy socioeconomic survey's parameters, including education and occupation, have remained constant

over time. However, the third parameter i.e. income loses its pertinence following the Indian rupee (INR) sensitivity to inflation.<sup>5</sup> The income scale in Kuppuswamy SES is therefore adjusted in accordance with changes in the Consumer Price Index (CPI) for industrial workers as projected by Labour Bureau, Ministry of Labour and Employment Govt. of India<sup>6</sup> and the Central Ministry of Statistics and Programme Implementation<sup>7</sup> on their website. The values of the CPI are explained in reference to a base year.<sup>8</sup> As per the Labour Bureau, Government of India, the current base year to be considered is 2016. Here in this paper, we will use 2016 base year for calculating the income level of families to determine their socioeconomic status.<sup>9</sup> For calculation inflation rate (conversion factor), of February 2023 is 6.16 has been considered. If we multiply the generated income scale values of the year 2016 with the conversion factor of 6.16 that will update the Kuppuswamy SES scale for February 2023. The conversion rate or inflation rate is calculated using the formula.

$$\text{Inflation Rate} = \frac{b-a}{a} \times 100$$

$b$  is the CPI of the current year &

$a$  is the CPI of previous year

### 3. Limitations

Although researchers most frequently use it in community, and hospital based investigations, the Kuppuswamy socioeconomic survey has significant limitations that decrease its sensitivity in predicting a family's socioeconomic level. These include determining socioeconomic class by taking into account the employment history and educational background of the family's head, which is wholly inappropriate in the current context. Furthermore, the scale is subject to variations in income levels because it depends on shifting CPI values and needs to be updated frequently.

### 4. Source of Funding

None.

### 5. Conflict of Interest

None.

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