

Proportionate Analysis of Parental Income and Distribution of Education Related Expenditure

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Abstract: This study examines the relationship between parental income and the allocation of education-related expenditure, focusing on how financial capacity shapes household decisions regarding children's education. Education is widely regarded as both a fundamental social requirement and a key investment in human capital. However, the level and pattern of spending vary considerably across different income groups. Households with higher income levels typically invest more in private schooling, advanced learning resources, digital technologies, extracurricular activities, and coaching classes, thereby enhancing educational opportunities for their children. In contrast, lower-income households, despite often allocating a larger share of their limited income to education, tend to focus primarily on essential expenses such as school fees, textbooks, uniforms, and basic stationery. This contrast reflects not only differences in the amount of educational spending but also in the quality and distribution of resources. The findings indicate that parental income plays a significant role in determining children's access to diverse educational inputs, which ultimately affects learning outcomes and future socio-economic mobility.

Keywords: *Economic Mobility, Expenditure, Income, Academics, Extracurricular Activity.*

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I. INTRODUCTION

Education is widely recognized as a key driver of human capital development and socio-economic advancement. The financial investment made by families in their children's education significantly influences academic performance and future opportunities. However, both the level and pattern of such investment are largely determined by parental income, which shapes the capacity to allocate resources across various educational needs. Understanding how income affects educational spending is essential for assessing equity in access to learning opportunities.

Higher-income families generally have greater flexibility to spend on private schooling, coaching, and enrichment activities, while lower-income households often struggle to meet basic educational expenses. This imbalance reflects differences not only in financial capability but also in priorities and perceptions of education as an investment. Rising educational costs and increasing competition have further intensified financial pressures on families.

Although investing in education is important, excessive spending does not always guarantee better outcomes. It may create financial strain and unrealistic expectations for children. Effective educational investment should therefore

be balanced, focusing on quality learning, individual abilities, and supportive environments to ensure holistic development without overburdening households.

➤ *Hypotheses:*

• *H₀ (Null Hypothesis):*

Parents allocate an unreasonable proportion of their income toward education-related expenditure, including school fees, tuition, extracurricular activities, and learning resources.

• *H₁ (Alternative Hypothesis):*

Parents allocate a reasonable proportion of their income toward education-related expenditure, including school fees, tuition, extracurricular activities, and learning resources.

II. LITERATURE REVIEW

Education is widely acknowledged as both a basic necessity and a long-term investment that contributes to individual advancement and national development. A substantial body of research highlights the influence of parental income on the pattern and distribution of education-related expenditure. Studies consistently show that households with limited financial resources prioritize

essential expenses such as school fees, textbooks, uniforms, and transportation. In contrast, middle-income families tend to balance spending between basic requirements and supplementary support, including private tutoring and coaching services. Higher-income households, with greater financial flexibility, often invest in premium educational opportunities such as private schooling, digital learning tools, extracurricular activities, and enrichment programs, thereby enhancing their children's academic exposure and skill development.

A prominent theme in existing literature is the expansion of private tutoring, commonly referred to as "shadow education." Research indicates that shadow education has become an increasingly significant component of household educational expenditure, particularly in urban and economically advantaged groups. While such additional support can improve academic performance and competitive outcomes, it simultaneously reinforces educational inequality, as lower-income families are often unable to afford similar resources (Bray, 2013).

In the Indian context, national surveys and empirical studies reveal notable disparities in educational spending across income groups, regions, and types of schooling. Urban households and families with higher income levels tend to spend considerably more on coaching, technology, and private institutions, whereas rural and economically disadvantaged households are largely confined to meeting basic educational costs (National Sample Survey Office [NSSO], 2018). Furthermore, the divide between public and private schooling contributes to differences in both the quality and quantity of educational inputs available to students.

Overall, the literature demonstrates a clear relationship between parental income and the allocation of educational expenditure. As household income rises, spending shifts from essential needs to quality-enhancing and aspirational investments. This pattern contributes to unequal access to educational opportunities and may influence long-term socio-economic mobility. Consequently, scholars emphasize the need for policy interventions, including scholarships, subsidies, and strengthened public education systems, to reduce disparities and promote equitable access to quality education.

III. RESEARCH METHODOLOGY

This study employed a descriptive research design to gather primary data and examine the relationship between parental income and education-related expenditure. A structured questionnaire was used to collect quantitative data, ensuring consistency in responses and facilitating statistical analysis. The descriptive approach was selected as it enables the systematic description of population characteristics and the analysis of relationships among variables without influencing the study environment.

A stratified sampling technique was adopted to ensure proper representation of different groups within the population. The sample was divided into distinct strata based

on income levels, as this variable was central to the research objectives. Respondents were then selected proportionally from each stratum, which helped reduce sampling bias and allowed for meaningful subgroup comparisons.

The study included a total of 50 respondents. Proportional allocation was applied to maintain representation across income groups while ensuring the feasibility of data collection. Primary data were collected through a self-administered online questionnaire developed using Google Forms. The questionnaire consisted of sections covering demographic details, core research questions, and a few open-ended items to capture additional insights. The survey link was shared through email and digital communication platforms.

To ensure data quality, a pilot test was conducted with a small group, and necessary modifications were made based on feedback. Responses were reviewed for completeness and consistency, and incomplete or duplicate entries were removed during data cleaning. Ethical standards were maintained by ensuring voluntary participation, informed consent, anonymity, and the use of data strictly for academic purposes.

IV. DISCUSSION

➤ *Interpretation:*

$40,800 / 4,50,000 \times 100$
= 9 per cent of the income is spent on private Tuition centres.

➤ *Books and Stationery:*

Proportion of expenditure on books and stationery =
Avg expenditure for books and stationery / Total Avg income $\times 100$

$10,000 / 4,50,000 \times 100$
= 2.2 per cent is spent on books and stationery .
Extracurricular activities
Proportion of expenditure on Extracurricular activities
=

Avg expenditure for Extracurricular activities / Total Avg income $\times 100$

$10,000 / 4,50,000 \times 100$
= 2.2 per cent is spent on extracurricular activities.
Total percentage of income spent on education related expenses =

$19.4 + 9 + 2.2 + 2.2 = 32.8$ per cent which could rounded off to

33 percent

Therefore about 33 per cent of the Parental income is spent on the education of one kid in a family

From the data it can be inferred that most of the families have two kids on an average

Hence it can be concluded that about 66 per cent of the Parental income is spent on education.

V. CONCLUSION

Based on what's practical and what's observed in India: This is the recommended expenditure for K-12 Students

- If you have one child, aiming to keep *all education-related expenses* (tuition + books + uniforms + transport + extracurriculars) to **no more than 20-25%** of family gross income is a reasonable safe target for many urban households.
- If you're considering higher education (especially abroad), you should plan years in advance so that education does not spike to 50-60% of income (which is unsustainable unless you have very high income or large savings/investments).
- For lower income households, even 10-15% might be a stretch, so priority is to plan, save early, and use cost-effective options.

But the analysis show that 66% of the parental income is spent on the education of the children,

Which proves H1 to be true.

➤ *H₁ (Alternative Hypothesis):*

Parents allocate an excessive or undesirable proportion of their income toward education-related expenditure, including school fees, tuition, extracurricular activities, and learning resources.

VI. SUMMARY

The selected studies highlight a strong relationship between household income and education-related expenditure. Research consistently shows that higher-income families tend to invest more in their children's education, not only in basic academic needs but also in supplementary areas such as private tutoring and extracurricular activities. This increased spending enhances learning opportunities and academic outcomes. In contrast, lower-income households are often limited to essential educational expenses due to financial constraints. Studies also indicate that income inequality plays a significant role in widening the gap in educational investment, as wealthier families can afford additional learning resources that others cannot. Furthermore, parental income—especially maternal income—has been found to influence decision-making power within households, leading to higher allocation of funds toward education. Overall, these findings demonstrate a clear positive correlation between income and educational expenditure, emphasizing the need for policy measures to reduce disparities and ensure equal educational opportunities for all students.

This study explores the relationship between parental income and the allocation of education-related expenditure, with particular emphasis on how financial capacity influences household decision-making regarding children's education. Education is widely recognized as both a basic social necessity and a long-term investment in human capital that

contributes to individual development and broader socio-economic progress. However, the level, composition, and priorities of educational spending differ significantly across households belonging to different income groups.

Families with higher income levels generally possess greater financial flexibility, enabling them to invest in a wide range of educational resources beyond basic requirements. These may include private schooling, advanced learning materials, digital technologies, extracurricular activities, and specialized coaching classes. Such investments not only enhance academic performance but also support the overall development of skills, creativity, and competitiveness among students. Consequently, children from higher-income households often gain access to enriched learning environments and broader educational opportunities.

In contrast, lower-income households face financial constraints that limit their spending capacity. Although these families may dedicate a substantial proportion of their income to education, their expenditure is largely confined to essential items such as school fees, textbooks, uniforms, and basic stationery. Limited access to supplementary resources such as tutoring, technology, and extracurricular programs may restrict the academic exposure and skill development of children from these backgrounds.

This disparity highlights not only differences in the quantity of educational spending but also in the quality and diversity of resources available. The unequal distribution of educational inputs can contribute to variations in learning outcomes and future opportunities. Over time, such differences may reinforce existing socio-economic inequalities and affect social mobility.

Overall, the study underscores the critical role of parental income in shaping educational investment patterns. It emphasizes the need for targeted policies and support systems to bridge the gap in access to quality education and ensure more equitable opportunities for students across all income groups.

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