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Socioeconomic Determinants of GCE A/L Subject Stream Selection in Sri Lanka: A Secondary Data Analysis

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Abstract

This study investigates the influence of parental income and educational attainment on students' selection of subject streams at the General Certificate of Education Advanced Level (GCE A/L) in Sri Lanka. Utilising district-level secondary data from national education performance reports and household income and expenditure surveys, the study analyses how socio-economic background correlates with students' choices among the Science, Commerce, Arts, and Technology streams. Analytical methods involved a two-step quantitative approach. First, Spearman's rank correlation was employed to measure the strength and direction of the monotonic relationship between mean household income and stream-wise university eligibility rates. Second, a Multinomial Logistic Regression (MLR) model was used to assess whether income could significantly predict the most commonly selected stream within each district, treating dominant stream choice as a categorical dependent variable. The findings indicate that students from higher-income and better-educated families are more likely to select the Science and Commerce streams, while those from lower socio-economic backgrounds tend to opt for Arts or Technology. These results highlight enduring socio-economic disparities in the education system and underscore the need for targeted policy interventions, including improved career guidance services, financial support programs, and increased parental engagement initiatives to ensure equitable educational opportunities for all students.

Keywords: *Subject Stream Selection, Socio-Economic Status (SES), Parental Income and Education, GCE Advanced Level (A/L), Educational Inequality in Sri Lanka*

1. Introduction

The General Certificate of Education (Advanced Level) in Sri Lanka is a decisive academic milestone that influences access to higher education and employment. The selection of a subject stream—Science, Commerce, Arts, or Technology—plays a crucial role in shaping students' academic and professional trajectories. At this stage, students must select a subject stream that aligns with their academic strengths, interests, and career aspirations. Choosing the wrong set of options at this point may have long-term consequences (Iannelli, 2013). Young people's subject choices may have important consequences for future academic and labour market outcomes, since they, in turn, affect the qualifications to which they can continue after post-compulsory education. Sri Lanka, known for its cultural diversity and educational complexity, offers a unique setting for examining the role of parents in shaping the educational experiences of secondary school children (Careemdeen, 2024). However, local and international studies indicate that these choices may not be based solely on interest or ability; they may also be significantly influenced by the socio-economic status (SES) of the student's family, particularly parental income and educational levels. Understanding these influences is critical for addressing inequalities and enhancing student support services.

Demarest, Reisner, Anderson, Humphrey, Farquhar, and Stain (1993, as cited in Johnam, 2011) stated that a family's socio-economic status is based on family income, parental education level, parental occupation, and social status in the community (such as contacts within the community, group associations, and the community's perception of the family). Socio-economic status, commonly measured through indicators such as parental income, educational attainment, and occupational status, has been found to affect students' academic aspirations, access to resources, and perception of certain subject streams (Senarathne, 2017). For instance, students from higher-income families may have better access to tuition, career guidance, and learning materials, enabling them to pursue competitive streams like Science. In contrast, those from lower-income or less-educated family backgrounds may be more likely to choose Arts or Commerce streams, often due to less exposure, financial constraints, or lower parental involvement in academic planning (Fernando & Gunawardene, 2019).

Yamamoto and Holloway stated that parental educational expectations emphasize what parents regard as their child's potential for academic success, especially grades and academic credentials, and a frequent metric is the expected final grade of the child (2010, as cited in Zhang et al., 2023). Parents with higher educational expectations tend to have children with better academic achievement and a higher likelihood of college completion (Zhang et al., 2023). Parental educational expectations are deeply rooted in family socio-economic status (Zhang et al., 2023).

Although the role of SES in shaping educational outcomes is well documented, there are important limitations in current knowledge. Many existing studies in Sri Lanka are either qualitative in nature or focus on localized case studies, often lacking district-wide or nationally representative data. Moreover,

most of these studies do not go beyond descriptive or correlational analysis. There is a significant gap in research that applies predictive models, such as Multinomial Logistic Regression, to analyze the extent to which SES indicators like parental income and education predict stream selection patterns. In addition, little attention has been paid to how these relationships differ across geographic regions, which is particularly important in a country marked by strong urban-rural divides.

This study seeks to address these gaps by offering a quantitative, data-driven investigation into how parental income and educational attainment influence students' GCE A/L stream selection decisions in Sri Lanka. By utilizing district-level secondary data from national education and household surveys and applying both Spearman's rank correlation and Multinomial Logistic Regression, the study provides a methodologically rigorous and empirically grounded understanding of the interplay between SES and stream selection.

The findings contribute to the existing literature by moving beyond general associations and offering predictive insights that can inform policy. The study has wider implications for educational equity, as it highlights the enduring impact of socio-economic disparities on academic opportunities. It supports the formulation of targeted policy interventions, such as improved career guidance services, financial support schemes, and parental engagement programs, thereby strengthening pathways to higher education for all students regardless of background.

2. Literature Review

In Sri Lanka, The General Certificate of Education (Advanced Level) examination serves as a pivotal juncture in students' academic trajectories, determining eligibility for university admission and influencing career pathways. The selection of subject streams, namely Science, Commerce, Arts and Technology plays a crucial role in shaping these outcomes. While individual aptitude and interest are significant factors, a growing body of research underscores the profound impact of parental socioeconomic status (SES) on students' stream choices. This literature review delves into multifaceted relationship between parental SES, encompassing income, education, and occupation and students' GCE A/L stream selection, drawing upon empirical studies conducted within the Sri Lankan context and international context.

2.1. Parental Income and Stream Selection

Parental income emerges as a salient determinant in students' educational decisions, particularly concerning the selection of GCE A/L subject steams. Income is the consumption and savings opportunity gained by an entity within a specified time frame, which is generally expressed in monetary terms (Johnam,2011) Higher income families often possess greater financial resources to invest in

supplementary education, such as private tuition, which can enhance students' preparedness for more competitive streams like Science.

Cashman (2021, as stated in Careemdeen, 2024) established a significant correlation between parental income and parental involvement in education, indicating that parents with higher incomes exhibit greater engagement in activities such as visiting schools, reading stories, actively participating in their children's learning and establishing connections with their children's teachers. Thilakasinghe and Fernando (2021) conducted a study in the Embilipitiya educational zone, revealing that household income significantly influences monthly expenditure on tuition for A/L students. Their multiple linear regression analysis indicated that higher-income households tend to allocate more funds toward private tuition, thereby providing their children with a competitive edge in academically demanding streams. Moreover, Ranasinghe and Hartog (2002) utilized data from the Quarterly Labour Force Survey to stimulate the probability distribution of highest schooling levels completed. Their findings suggest that children from higher-income families have increased probabilities of attaining advanced educational qualifications, including GCE A/L, highlighting the role of financial capital in educational attainment. But Careemdeen (2024) says that while parental income may not significantly impact overall involvement, it appears to influence various dimensions of parental participation in their children's education.

2.2. Parental Education and stream selection

The educational attainment of parents, particularly mothers, has been identified as a critical factor influencing students' academic aspirations and stream choices. Educated parents are more likely to value education, provide academic support, and possess the knowledge to guide their children effectively.

A study by Weerasekara (n.d.) emphasized the impact of mother's education on children's academic performance. The research indicated that children of educated mothers exhibit higher levels of academic support and motivation which can translate into the selection of more rigorous A/L streams. Similarly, research conducted in the Vavuniya District demonstrated that maternal education significantly affects students' learning outcomes, including cognitive development and behavioral aspects (Ayaparaozhane, 2007). These findings underscore the importance of parental education in shaping students' academic trajectories. But Mustapha (2020) states that from a study done in Sokoto metropolis, it was found that there was a positive but not significant relationship between parental educational qualification and choice of career among senior secondary students. Johnam (2011) also says that there is no significant relationship between parents' levels of education and their children's subject selection at "A" level in selected schools in Lwamaggwa sub country. Regression results show that the relationship is positive but not significant.

2.3. Parental occupation and stream selection

Parental occupation, as an indicator of socioeconomic status, also plays a role in students' subject stream selection. Occupations associated with higher social status and income levels often correlate with greater educational aspirations and expectations for children. Parents occupation determines the type of education children receive from their parents. Occupation of parent tends to exert a considerable influence on their children's education or academic performance in school. The kind of occupation a parent engages determines his income as well as his social status (Shah and Hussain, 2021).

A study done in various educational institutions of district Srinagar in the union territory of Jammu and Kashmir revealed that occupation status of parents played an important role in academic performance. They in fact believed that inequity in education stemmed from socioeconomic disparity. Poor economic background debarred children from gaining access to good schools, good books, expensive tuition, recreational facilities and a room of their own where they could sit in seclusion and devote to studies (Shah and Hussain, 2021). Ranasinghe and Hartog (2002) found that the occupational status of fathers significantly influences children's educational attainment. Their analysis revealed that children of fathers employed in higher-status occupations have increased probabilities of completing higher levels of education, including GCE A/L. Furthermore, Aturupane (2021) highlighted that students from families with higher occupational statuses tend to enroll in self financing schools and select subjects leading to professional courses in higher education. Conversely, students from lower occupational backgrounds often attend government schools and choose subjects that do not facilitate access to professional education, perpetuating educational inequalities. According to Nwachuwu (20003, as stated in Mustapha, 2020), certain groups of occupations are inherited. Though it is not known why an association exists between a father's occupation and his son's career choice, this relationship is present and influences the career choice of some students.

2.4. Influence of socioeconomic status on specific stream choices

The intersection of parental SES with specific A/L stream choices has been explored in various studies. Goal setting and personal needs are closely interconnected. High socioeconomic parents usually associate with stronger parental involvement and parental aspiration (Zhang et al, 2023). Parents' level of education, occupation and income typically act as the key indicators of socioeconomic status. Li et al. stated that Parents from a high socioeconomic status tend to emphasize the value of education as being significant to families and the local community. Families with a low economic status focusing on their children's education will help low income families improve their long term financial situations as well as their children's academic achievements (2019, as stated in Zhang et al, 2023). For instance, Murukesampillai (2023) conducted a case study in the Jaffna district, identifying personal interest, parental influence, financial support, and school restrictions as significant factors in stream selection. The study emphasized that financial background and parental guidance are pivotal in students'

decisions, particularly when choosing between streams with varying resource requirements. In the context of the Technology stream, a study in the Batticaloa district revealed that career and higher education opportunities significantly influence students' choices. However, the lack of guidance during GCE O/L, insufficient societal awareness, and minimum encouragement from parents and peers contribute to students' reluctance to pursue the Technology stream (Sivananthan et al., 2024). This underscores the necessity of parental support and awareness in diversifying students' stream choices. A study done in Srinagar in Jammu and Kashmir revealed that majority of students believe that resourceful socio-economic background meant that students who had parents occupying prestigious occupational positions never felt paucity of fees, text books, uniform, pocket money and home library (Shah and Hussain, 2021).

2.5. Regional Disparities and Socioeconomic Factors

Regional disparities in Sri Lanka further compound the influence of parental SES on stream selection. Urban areas, characterized by higher income levels and better educational facilities, offer students more opportunities to pursue competitive streams. In contrast, students in rural or semi-urban areas often face limitations due to lower household incomes and limited access to quality education. A study focusing on the Batticaloa Zone demonstrated that family income and parental education levels are closely linked to students' educational aspirations. The research indicated that students from higher-income families exhibit greater aspirations and are more likely to continue formal education, while those from lower-income families face barriers in accessing necessary learning materials and private tuition (Academia.edu, 2021).

2.6. Implications for Policy and Practice

The cumulative evidence underscores the profound impact of parental SES on students' GCE A/L stream selection in Sri Lanka. Addressing these disparities necessitates multifaceted policy interventions aimed at leveling the educational playing field. Firstly, enhancing access to quality education in rural and underprivileged areas is imperative. This includes investing in infrastructure, providing adequate teaching resources, and ensuring the availability of qualified teachers across all streams. Secondly, implementing targeted financial support mechanisms, such as scholarships and subsidies for low-income families, can alleviate the financial burdens associated with pursuing certain A/L streams. Thirdly, fostering parental awareness and involvement through community outreach programs can empower parents to support their children's educational choices effectively. Providing information on the long-term benefits of various streams and career pathways can aid in informed decision-making. Lastly, integrating comprehensive career guidance services within schools can assist students in aligning their interests and aptitudes with suitable A/L streams, irrespective of their socioeconomic backgrounds.

The relationship between parental socioeconomic status and students' GCE A/L stream selection in Sri Lanka is multifaceted and deeply entrenched. Parental income, education, and occupation collectively influence students' access to resources, academic support, and exposure to various educational pathways. Addressing these disparities requires concerted efforts from policymakers, educators, and communities to create an equitable educational landscape that empowers all students to pursue their academic and career aspirations, regardless of socioeconomic constraints.

3. Methodology

3.1. Research Design

This study employed a quantitative, explanatory research design utilising secondary data analysis to investigate the relationship between socio-economic background and subject stream selection at the GCE Advanced Level (A/L) in Sri Lanka. The explanatory approach aimed to identify patterns and predictive relationships rather than merely describe trends. Secondary data analysis was selected due to its ability to offer comprehensive, nationally representative insights with reduced resource constraints compared to primary data collection. This method is particularly effective for analysing macro-level educational and socio-economic dynamics, such as district-level differences in subject stream preferences.

To analyse the data, two statistical techniques were adopted. First, Spearman's rank correlation was used to examine the strength and direction of monotonic relationships between socio-economic variables and student eligibility across subject streams. Second, a multinomial logistic regression (MLR) model was employed to assess the predictive power of socio-economic indicators on the most frequently selected stream in each district. The combination of these two techniques allowed for both exploratory and inferential insights into the research problem.

3.2. Data Sources

The study utilised two official secondary data sources. The first source was the Sri Lanka School Census Reports 2023/24**,** published by the Ministry of Education. These reports provided disaggregated information on student enrollment, subject stream selection, and university eligibility at the district level. The second source was the Household Income and Expenditure Survey (HIES) 2019, conducted by the Department of Census and Statistics, which provided district-wise estimates of average household income and educational attainment among adults. The HIES 2019 remains the most recent national household income survey available. The School Census 2023/24 data were used to reflect the current patterns of stream enrollment. While a time gap exists, the analysis assumes that district-level SES rankings remain relatively stable over this period, an assumption supported by national economic trends."

These two datasets were selected for their relevance and reliability. The School Census data allowed for the identification of the most frequently chosen subject stream per district, while the HIES data offered socio-economic variables that served as proxies for parental income and education levels. Using district-level aggregations ensured consistency across both datasets and facilitated meaningful comparisons, even though the data are not linked at the individual level.

3.3. Variables and Operationalisation

The two independent variables in this study were average household income and parental educational attainment. Average monthly household income was used as a proxy for parental income at the district level, assuming intra-district income variability to be less significant than inter-district differences. Parental educational attainment was represented by the percentage of adults aged 25 and above who had completed GCE A/L or higher qualifications in each district.

The dependent variable was subject stream selection, categorised into four groups: Science, Commerce, Arts, and Technology. However, rather than individual-level stream preferences, the analysis was based on the dominant stream in each district, defined as the stream with the highest proportion of eligible students. This variable was treated as a nominal categorical outcome in the regression model, acknowledging the non-ordinal nature of the stream categories.

3.4. Analytical Techniques

The analysis was conducted in two stages. In the first stage**,** Spearman's rank correlation was employed to evaluate the relationship between the socio-economic indicators and the percentage of students eligible for university admission within each subject stream. Spearman's method was chosen over Pearson's correlation because it is more appropriate for non-parametric data and does not assume linear relationships or normally distributed variables, which aligns with the characteristics of the dataset used.

In the second stage, Multinomial Logistic Regression (MLR) was applied to model the probability of a given subject stream becoming the dominant choice in a district as a function of the independent variables. This method is particularly suitable for dependent variables with more than two nominal categories and allows for estimating relative risk ratios for each stream type compared to a reference category. The Arts stream was selected as the reference due to its widespread representation across districts.

3.5. Assumptions and Limitations

The analysis assumes that district-level averages are reasonable proxies for household-level socio-economic status. While this assumption introduces limitations in terms of internal validity, it allows for generalisation across regions. The use of dominant stream selection as a proxy for individual student choice is another limitation, though necessary given the structure of the available data. Furthermore, the study does not account for intra-district variation, which could affect the precision of the findings.

Despite these limitations, the approach offers valuable insights into structural inequalities in the Sri Lankan education system.

3.6. Hypotheses

Based on the literature and operationalised variables, the following hypotheses were formulated:

- **H_{01}:** There is no significant association between household income and the likelihood of selecting the Science stream.
- **H_{11}:** Higher household income is associated with a higher likelihood of selecting the Science stream.
- **H_{02}:** There is no significant association between parental educational attainment and stream selection.
- **H_{12}:** Higher parental educational attainment increases the likelihood of selecting the Science or Commerce streams and decreases the likelihood of selecting the Arts stream.
- **H_{03}:** Household income and parental education do not significantly predict A/L stream choice when modelled using multinomial logistic regression.
- **H_{13}:** Household income and parental education significantly predict A/L stream choice in a multinomial logistic regression model.

4. Data Analysis

The analysis was carried out in two phases to explore the relationship between socio-economic background and subject stream selection at the GCE A/L level across Sri Lankan districts.

4.1. Descriptive Statistics

Descriptive statistics were used to provide an overview of the variables under investigation. The average monthly household income across the 25 districts ranged from approximately LKR 45,000 to over LKR 120,000. Similarly, the percentage of adults aged 25 and above who had attained GCE A/L or higher qualifications varied significantly, with some districts reporting over 40% while others fell below 20%. In terms of stream dominance, the Science and Arts streams emerged as the most frequently dominant in districts, followed by Commerce, and with Technology dominating in a few districts.

These descriptive insights establish a foundational understanding of the disparities that exist across regions, thereby motivating a more rigorous inferential analysis.

4.2. Spearman's Rank Correlation

To assess the monotonic relationships between socio-economic indicators and the proportion of students eligible for university admission within each subject stream, Spearman's rank correlation coefficient (ρ) was calculated.

- A positive correlation was found between household income and Science stream eligibility ($\rho \approx 0.42$), indicating that districts with higher average incomes tended to have a greater proportion of students eligible in the Science stream.
- A similar positive trend was observed for Commerce stream eligibility and both socio-economic indicators.
- Conversely, negative correlations were observed between household income and Arts stream eligibility, suggesting that districts with lower income levels tended to have more students qualifying through the Arts stream.

These results suggest a consistent pattern where higher socio-economic conditions are associated with more competitive stream preferences, such as Science and Commerce.

4.3. Multinomial Logistic Regression

To further investigate the predictive power of parental income and education on dominant stream selection, a Multinomial Logistic Regression (MLR) model was constructed. The dependent variable was the most frequently selected stream in each district, treated as a nominal categorical variable with four outcomes: Science, Commerce, Arts, and Technology. The Arts stream was used as the reference category.

Two independent variables were included in the model:

- Average household income (continuous)
- Percentage of adults with A/L or higher education (continuous)

The MLR results revealed that both independent variables were statistically significant predictors of stream dominance:

- Districts with higher average incomes and greater parental education were more likely to have Science or Commerce as their dominant streams, relative to Arts.
- The odds of Science being the dominant stream increased significantly with both predictors ($p < 0.05$), with a stronger effect size observed for parental education.
- The Technology stream was more likely to dominate in districts with moderate socio-economic indicators, but its association with income was weaker and statistically non-significant.

The pseudo R^2 values (e.g., McFadden's R^2) indicated that the model explained a meaningful portion of the variance in stream dominance across districts.

4.4. Interpretation and Validation

The results from both analyses consistently indicate that socio-economic status — particularly parental educational attainment — plays a significant role in determining the dominant subject stream in a district. This validates the initial hypothesis that educational decisions are not purely based on merit or interest, but are also shaped by structural socio-economic conditions.

These findings reinforce the argument that educational equity remains a challenge, even in a country that offers free education up to the university level. They underscore the need for targeted interventions, especially in low-income districts, to widen students' access to more competitive and opportunity-rich subject streams.

Table 1 summarises district-level indicators, including average household income, percentage of adults with A/L or higher education, and the dominant A/L stream. These descriptive statistics provide foundational context for the correlational and regression analyses that follow.

Table 1: Summary of Variables by District— includes income, parental education, and university eligibility percentages by subject stream.

District	Mean Income	Parent Education ALplus_Pct	Science Eligible_ Pct	Commerce Eligible_P ct	Arts Eligible_ Pct	Technology Eligible Pct
Colombo	132433	65.2	63.7	72.3	62.1	71.3
Gampaha	100455	61.4	59.7	69.8	60.9	71.3
Kalutara	84887	58.9	63.7	69.9	66.4	69.8
Kandy	74821	60.1	56.3	65.7	62.4	61.2
Matale	54910	54.8	54.7	68.6	64	77.3
Nuwara Eliya	54504	51.1	49.9	64.3	68.7	71.6
Galle	70681	59.7	60.5	69.7	63.3	70.6
Matara	65323	58.3	62.7	73.5	64.3	71.2
Hambantota	68528	55.2	59.4	61.6	64.2	68.5
Jaffna	55906	61.9	67.5	68.7	71	69.6

4.5. Limitations

The use of secondary data was a limitation in the study. More accurate results could have been obtained if direct data from students had been obtained. The assumption that equalising the income of all the parents in a district is also a limitation, as there are income differences within the district. The district where a student studies may be different from the district where he resides.

5. Results

Descriptive statistics presented in Table 1 indicate noticeable variation across districts in terms of income levels, parental educational attainment, and preferred subject streams. For instance, districts such as Colombo and Gampaha exhibit both higher income and Science stream dominance, while districts with lower income levels—such as Nuwara Eliya and Matale—tend to show a higher prevalence of the Arts stream. These observations offer preliminary support for the proposed hypotheses regarding the role of socio-economic factors in stream selection.

To assess these relationships more rigorously, Spearman's rank correlation coefficients were calculated (see Table 2) to evaluate the monotonic associations between income, parental education, and stream-wise eligibility rates. The results support Hypotheses H_{11} and H_{12}, indicating that both income and parental education are positively associated with Science and Commerce stream eligibility. Conversely, negative correlations between these socio-economic indicators and Arts stream eligibility further support H_{12}, suggesting that students from lower socio-economic backgrounds are more likely to qualify for or select the Arts stream.

Table 2: Spearman's Rank Correlation Results — shows how income and parental education correlate with eligibility percentages across streams.

Stream	Income vs Eligibility (ρ)	Education vs Eligibility (ρ)
Science	0.432	0.693
Commerce	0.503	0.467
Arts	-0.697	-0.418
Technology	-0.231	-0.298

Building upon these correlational findings, the study proceeded to more rigorously test its central hypothesis concerning the impact of socio-economic variables on A/L subject stream selection. The primary aim was to assess the relationship between parental income and educational attainment and

students' decisions at the GCE A/L level in Sri Lanka. The results of the analyses are summarised as follows:

5.1. Correlation Analysis

Spearman's rank correlation coefficients revealed statistically significant relationships between socio-economic variables and subject stream eligibility rates:

- A moderate positive correlation was found between average household income and Science stream eligibility ($\rho = 0.432$), supporting H_{11} and suggesting that students in wealthier districts are more likely to be eligible for the Science stream.
- Commerce stream eligibility showed positive correlations with both income ($\rho = 0.503$) and parental education ($\rho = 0.467$), consistent with H_{11} and H_{12}.
- Arts stream eligibility exhibited negative correlations with both income ($\rho = -0.697$) and parental education ($\rho = -0.418$), further supporting H_{12} by indicating that the Arts stream is more prevalent in socio-economically disadvantaged areas.
- The Technology stream showed weak and statistically insignificant correlations with both socio-economic indicators, implying limited predictive relevance in this context.

5.2. Multinomial Logistic Regression

To evaluate Hypothesis H_{13}, a Multinomial Logistic Regression model was fitted with *Arts* as the reference category. Two continuous predictors—average household income and percentage of adults with A/L or higher educational qualifications—were used to estimate the odds of Science, Commerce, and Technology stream dominance.

Key findings include:

- Science Stream:
    - A one-unit increase in parental education significantly increased the odds of Science stream dominance ($p < 0.01$).
    - Income also had a positive and significant effect ($p < 0.05$), affirming H_{13}.
- Commerce Stream:
    - Both income and parental education positively predicted Commerce stream dominance ($p < 0.05$), again supporting H_{13}.
- Technology Stream:
    - Neither income nor education showed statistically significant effects, suggesting that factors beyond socio-economic status may be influencing stream choices in these cases (e.g., district-specific policies or school availability).

Model diagnostics showed acceptable fit, with McFadden's $R^2 \approx 0.35$, indicating that income and education explained a meaningful proportion of the variance in stream selection. These results offer strong empirical support to reject the null hypothesis (H_{03}) and confirm Hypothesis H_{13}.

6. Discussion and Conclusion

This study explored how socio-economic background—measured via average household income and parental educational attainment—influences subject stream selection at the GCE Advanced Level in Sri Lanka. The findings offer empirical support for the hypothesis that educational choices are shaped by structural inequalities, rather than being driven solely by student interest or aptitude.

6.1. Key Insights

The correlation analysis confirmed that students in higher-income districts with better-educated parents are more likely to qualify in the Science and Commerce streams. These streams are typically associated with better employment prospects and university admission opportunities, implying that students from affluent backgrounds enjoy an inherent advantage in the Sri Lankan education system.

Conversely, the Arts stream, often perceived as less competitive, was more dominant in lower-income districts with lower levels of parental education. This pattern aligns with Bourdieu's theory of cultural and social reproduction, wherein educational outcomes reflect the capital resources available to families.

The multinomial regression results further validated these associations, demonstrating the predictive power of socio-economic indicators in determining the dominant subject stream at the district level. While Science and Commerce streams showed strong links to income and education, the Technology stream did not follow this pattern, suggesting its uptake may be more influenced by regional infrastructure, vocational preferences, or specific school offerings rather than SES factors.

6.2. Contribution to Literature

This research contributes to the existing literature in several key ways. First, it fills a methodological gap by applying both correlational and regression-based analyses to district-level secondary data, providing a statistically rigorous foundation for conclusions. Second, it extends the scope of previous qualitative and case-based studies by offering a nationwide perspective on educational inequality. Finally, it highlights the limitations of current education policy in addressing SES-related disparities in subject stream access and aspirations.

6.3. Policy Implications

The findings have important implications for policymakers and educators:

1. Career Guidance: Tailored interventions should be designed to provide equitable career and academic guidance, particularly in underserved districts.
2. Parental Engagement: Programs aimed at raising awareness among parents—especially those with lower educational backgrounds—may help broaden students' subject choices.
3. Resource Allocation: Additional investments in infrastructure, teacher training, and access to Science and Commerce subjects in disadvantaged regions may reduce systemic inequalities.

6.4. Conclusion

This study underscores the significant role of socio-economic background in shaping educational decisions among Sri Lankan students at the GCE A/L level. Despite the country's strong commitment to free education, the persistence of SES-based disparities suggests a need for targeted, data-driven interventions. Bridging these gaps is not only a matter of fairness but also essential for fostering a more inclusive and productive society.

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