

## Parents' income levels and enrolment of primary school Pupils in Butansi Sub-County, Kamuli district. A cross-sectional study.

Alex Zikusooka\*, Dr. Patience Tugume, Edmand Bakashaba  
School of Graduate Studies and Research, Team University-Kampala.

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### Abstract

#### Background

Despite government efforts to expand access to Universal Primary Education (UPE), enrolment challenges persist in rural areas, largely influenced by household socio-economic conditions. This study examined the relationship between parents' income levels and the enrolment of primary school pupils in Butansi Sub-County, Kamuli District.

#### Methodology

A descriptive cross-sectional research design was used, involving respondents selected through purposive and simple random sampling. Quantitative data were collected using structured questionnaires, while qualitative insights were obtained through interviews with head teachers. Data were analyzed using descriptive statistics, Pearson correlation, and regression analysis.

#### Results

Most respondents were female (60%), aged 30–49 years, and dependent on subsistence farming (43.3%). Income levels were generally low, as reflected in parents' limited ability to afford school-related expenses beyond UPE. Mean scores revealed that while most parents could enroll their children in UPE schools ( $M = 3.50$ ), they struggled to meet costs associated with private tutoring ( $M = 2.40$ ), textbooks ( $M = 2.50$ ), and digital learning tools ( $M = 2.00$ ). Enrolment analysis showed 8,400 pupils enrolled across P1–P7, with near gender parity ( $GPR = 0.99$ ) but a high number of overage learners ( $n = 592$ ). Correlation results revealed a strong positive association between parental income and pupil enrolment ( $r = 0.768$ ,  $p = 0.002$ ). Regression findings indicated that income level significantly predicted enrolment ( $\beta = 0.451$ ,  $p < 0.001$ ), accounting for 66% of the variance.

#### Conclusion

Findings from the study showed a very strong positive correlation between parental income level and pupil enrolment. This suggests that households with higher income levels are significantly more likely to enrol their children in school.

#### Recommendation

The Ministry of Education and local government should provide scholarships, bursaries, or school fee waivers for pupils from low-income households.

**Keywords:** Income level, Enrolment, Socio-economic status, Universal Butansi Sub-County.

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**Corresponding author:** Alex Zikusooka\*

**Email:** alexzikusooka6@gmail.com

School of Graduate Studies and Research, Team University-Kampala.

#### Background

Since the launch of Universal Primary Education (UPE) in Uganda in 1997, the government has introduced various reforms aimed at increasing children's access to primary schooling. These efforts have included removing school fees, expanding the teaching workforce, and establishing additional schools, especially in hard-to-reach communities

(UNICEF Uganda, 2024). Despite these nationwide initiatives, Kamuli District continues to experience a decline in primary school enrolment (Kamuli District Enrolment Report, 2024).

In Butansi Sub-County specifically, enrolment rates have sharply fallen, dropping from 63.5% in 2022 to 42% in 2024 (Butansi Sub-County Enrolment Report, 2024). Gender disparities have also persisted, with enrolment ratios of boys

to girls remaining highly uneven: 6:1 in 2022, 7:2 in 2023, and 7:1 in 2024 (Butansi Sub-County School Enrolment Headcount Report, 2024). Furthermore, available records show that a large proportion of pupils in upper primary classes (P5–P7) are overage, with 85% recorded as being above 13 years old (Butansi Sub-County School Enrolment Headcount Report, 2023).

Globally, numerous studies highlight how enrolment patterns are often shaped by socio-economic circumstances, gender dynamics, and the overall quality of education. If the declining enrolment trend in Butansi Sub-County is not urgently addressed, it may result in a future generation with limited education, worsening existing challenges such as poverty, joblessness, and social inequality, ultimately hindering national development (UNESCO, 2020; World Bank, 2021).

These concerns have motivated the current study, which seeks to examine how parents' income levels influence the enrolment of pupils in selected UPE schools within Butansi Sub-County. The findings are expected to generate critical evidence needed to design interventions that can boost school access, retention, and gender balance in the area. This study examined the relationship between parents' income levels and the enrolment of primary school pupils in Butansi Sub-County, Kamuli District.

## Methodology

### Research design

This study adopted a descriptive, correlational, and cross-sectional survey design. Further, the study used a mixed-methods research approach (quantitative and qualitative approaches).

The correlational research design examined the relationship between two or more variables without manipulating them. It determined whether and how strongly variables were related, but it did not establish causation.

A mixed-methods approach combined both quantitative and qualitative research methodologies. Quantitative research focused on numerical data and statistical analysis, while qualitative research explored deeper insights through interviews, observations, or open-ended responses.

### Study population

The study targeted head teachers and parents of primary seven pupils in UPE schools in Butansi Sub-County, Kamuli District, as the study respondents. The base year for enrolment in this study was 2019 (primary one and were now in primary seven). There were 10 primary schools in the sub-county; however, 6 primary schools were selected for this study due to their declining enrolment of pupils (Butansi Sub-County School Enrolment Report, 2024).

The selected primary schools include: Butansi Primary School, St. Mulumba Primary School, Nakyaka Primary School, St. Kizito Primary School, St. John Orthodox Primary School, and Busambu Primary School (Kamuli District Education Department, 2024).

The target population for the study was 336 individuals, which included 6 head teachers of the selected primary schools, 330 parents.

The head teachers were key respondents who provided information relating to enrollment trends, dropout rates, and possible links to socio-economic challenges among pupils, as well as accessing records on enrollment since 2019 (base year).

The parents of the selected pupils also provided information on the socioeconomic status of their families.

**Table 1: Target population of the study**

Primary schools	Head teachers	Number of parents	Total target population per school
Butansi Primary School	01	64	65
St. Mulumba Primary School	01	76	77
Nakyaka Primary School	01	35	36
St. Kizito Primary School	01	48	49
St. John Orthodox Primary School	01	49	50
Busambu Primary School	01	58	59
Total	06	330	336

**Source:** (Kamuli District Education Department, 2024).

### Sample size

To determine the sample, the researcher employed Solven's formula (Solven, 1976).

$$N = \frac{N}{1 + Ne^2}$$

Where N = target population

e = error 0.05

Pupils and parents

$$N = \frac{336}{1 + 336(0.05^2)}$$

$$N = \frac{336}{1 + 0.825}$$

$$N = \frac{336}{2.665}$$

126 people

The study proportionally selected respondents from the two groups, i.e., head teachers and parents. Therefore, 6 head teachers and 120 parents were selected from each school to constitute the sample. Therefore, the sample size of the study was 126 respondents.

**Table 2: Target population, sample size, and sampling technique.**

Target groups	Population	Sample size	Sampling techniques
Head teachers	06	06	Census sampling
Parents	330	120	Simple Random sampling
Total	336	126	

**Source:** Butansi Sub-County School Enrolment Report (2024).

### Sampling techniques

This study employed a combination of census sampling and simple random sampling techniques to select participants from the target population.

### Census sampling technique

Since the total number of head teachers in the selected primary schools was small (six), the study used census sampling to include all six head teachers. This approach ensured comprehensive data collection from each school leader, who possessed key insights into enrollment trends and the socio-economic backgrounds of pupils.

### Simple random sampling

The study applied simple random sampling to select respondents from the population of 330 individuals. A sample of 120 parents was randomly selected from the list of pupils enrolled in each school.

Simple random sampling was used because it was easy to implement and allowed for generalization of results to the larger population, provided the sample is representative. These techniques ensured that the study obtained reliable and valid data from a well-distributed sample across the selected schools in Butansi Sub-County, Kamuli District.

### Data collection methods and instruments

The researcher collected data using questionnaires, an interview guide, published and unpublished documentary reviews.

### Questionnaire

Under this study, the researcher used questionnaires to gather data from parents in Butansi Sub-County, Kamuli district. Open-ended and closed-ended questions were used

to access first-hand information. Closed-ended questions were used to give respondents alternative answers and to avoid the waste of time in thinking. The researcher requested the primary seven pupils of the selected primary schools to take the questionnaire to their parents to fill out and return, and then class teachers helped by receiving the questionnaires from pupils.

### Interviews

Primary data from head teachers of the selected primary schools was collected using semi-structured interviews. The interviews were designed to gather in-depth information on the influence of parents' socio-economic status, particularly occupation, income level, and education, on pupils' enrolment and participation in primary education.

A total of four head teachers from purposively selected Universal Primary Education (UPE) schools within Butansi Sub-County participated in the interviews. These participants were chosen because they are directly involved in school management, pupil enrolment, and parental engagement activities, making them key informants with valuable insights into the study objectives.

Each interview was conducted face-to-face at the respective school premises during working hours, in a quiet and private setting to allow free and uninterrupted discussion. The interviews were conducted in English, though local expressions were used where necessary to ensure clarity. Each session lasted approximately 30 to 45 minutes.

### Documentary review

The administrators were requested to provide documents relating to admissions, enrolments, dropouts, and attendance of pupils within their respective primary schools. These documents provided essential quantitative data that helped the researcher identify patterns and trends in pupil participation in school. Specifically, this information was used to assess how variations in parents' socio-economic status influenced school enrolment, regular attendance, or

dropout rates. These records also helped validate self-reported data, ensured the reliability of findings, and supported comparisons between schools within Butansi Sub-County, thereby strengthening the overall analysis of the relationship between parental socio-economic status and pupil enrolment.

## **Data quality control**

### **Validity of instruments**

Validity is the accuracy and meaningfulness of inferences, which are based on the research results. Validity is the degree to which the results obtained from the analysis of the data actually represent the phenomenon under study. Validity of research instruments was achieved by ensuring that test items covered all objectives and variables of the study. Consultations and discussions with five experts were conducted to establish the content validity. A content validity test was conducted using the CVI, whose formula is:

$$\text{CVI} = \frac{\text{Number relevant items}}{\text{Total Number of Items}} \times 100$$

CVI =  $\frac{28/30}{1} = 0.93$ .  
The CVI of 0.93 was obtained and compared with 0.7, and the instruments were valid and used to collect data for the study.

### **Reliability of instruments**

Reliability is a measure of the degree to which a research instrument yields consistent data results or data after repeated testing. This refers to how consistent the research instrument is. Amin (2005) contends that the instrument is reliable when it produces the same results when it is used repeatedly, hence ensuring dependability and precision. To ensure the reliability, the researcher will pre-test the questionnaire on three individuals, and answers of relative values from the first and second test were entered in SPSS to calculate the Cronbach alpha, and a 0.82 value was obtained. This showed that instruments were consistent and passed the acceptance criterion.

### **Measurement of variables**

The questionnaires were drafted based on a five-point Likert scale (1-5), whereby Strongly Agree (SA)-5, Agree (A)-4, Not Sure (NS)-3, Disagree (D)-2, and Strongly Disagree (SDA)-1

## **Data analysis**

The data collected was coded and tested for completeness and then analysed using descriptive and inferential statistics using Statistical Package for Social Sciences (SPSS) V.24 and presented using tables, charts, and graphs for easy interpretation. Chi-square test was used to establish the influence of independent variables on the dependent variable.

For qualitative data, the researcher started by reviewing the raw data line by line, assigning preliminary codes (words or phrases) to chunks of text that seemed relevant to the research question, and identifying patterns and relationships. He then interpreted how these themes answered the research questions. Then he presented findings as key themes and sub-themes backed by direct quotes from interviews, field notes, and other qualitative data.

Further, the researcher discussed the findings within the context of Butansi Sub-County and Kamuli District, considering local socio-economic conditions, cultural norms, and any unique features that influence the impact of SES on school enrolment.

## **Ethical considerations**

### **Informed consent**

Participants (parents and possibly older pupils) were fully informed about the purpose, procedures, potential risks, and benefits of the study. Written or verbal consent was obtained before participation, and participants had the right to withdraw at any time without penalty.

### **Voluntary participation**

Participation in the study was entirely voluntary. No participant was coerced or unduly influenced to take part in the research.

### **Confidentiality and anonymity**

All data collected was kept confidential and used solely for academic purposes. Names or other identifying information were not disclosed in the final report. Codes or pseudonyms were used to protect participants' identities.

### **Protection from harm**

The study avoided causing any physical, emotional, psychological, or social harm to the participants. Sensitive questions were asked with care and cultural sensitivity, and participants did not feel judged or uncomfortable.

### Respect for persons and cultural sensitivity

The study also respected local customs, values, and social norms of the people in Butansi Sub-County. The researcher behaved professionally and respectfully at all times.

### Ethical approval

The research was reviewed and approved by an appropriate Institutional Review Board (IRB) or ethics committee to ensure adherence to ethical standards.

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### Permission from the authorities

Formal permission was obtained from relevant authorities, such as school administrators, local government officials, and district education officers, before conducting research in the schools.

### Data integrity and honest reporting

Data was collected and reported honestly, without fabrication, falsification, or misrepresentation. Any limitations or biases in the study were openly acknowledged.

### Results

#### Response rate

The response rate is a critical indicator of the reliability and validity of a study, as it reflects the proportion of participants who completed the data collection instruments relative to those who were initially targeted.

To determine the response rate, the research uses the formula;

$$\text{Response Rate (\%)} = \left( \frac{\text{Questionnaires Returned}}{\text{Questionnaires Issued}} \right) \times 100$$

**Table 3: Response rate of the study**

Target Groups	Questionnaires Issued	Questionnaires Returned	Response Rate (%)
Head teachers	06	06	100%
Parents	120	114	95%
Total	126	120	95.2%

Source: Primary data (2025)

Table 3 presents the response rate of the study participants. A total of 126 questionnaires were distributed to two target groups: head teachers and parents. Out of these, 120 questionnaires were successfully returned, representing an overall response rate of 95.2%.

All 6 questionnaires issued to head teachers were returned, yielding a 100% response rate, which indicates a very high level of cooperation and engagement from this group. Similarly, out of 120 questionnaires distributed to parents, 114 were returned, giving a response rate of 95%.

This high overall response rate suggests that the respondents were willing and interested in participating in the study. It also implies that the data collected is reliable and adequately represents the views of the target population. The excellent participation from both groups enhances the validity and credibility of the study findings.

### Socio-Demographic characteristics of respondents

**Table 4: Demographic Characteristics of Respondents**

Variable	Category	Frequency (f)	%age (%)
<b>Gender</b>	Male	48	40.0
	Female	72	60.0
<b>Age Group (Years)</b>	20–29	20	16.7
	30–39	44	36.7
	40–49	38	31.6
	50 and above	18	15.0
<b>Level of Education</b>	No formal education	14	11.7
	Primary level	46	38.3
	Secondary level	38	31.7
	Tertiary/college	22	18.3
<b>Marital Status</b>	Single	10	8.3



	Married	84	70.0
	Widowed	18	15.0
	Divorced/Separated	8	6.7
<b>Employment Status</b>	Unemployed	18	15.0
	Subsistence farmer	52	43.3
	Self-employed (petty trade, crafts)	28	23.3
	Formal employment (teacher, civil servant)	14	11.7
	Casual laborer	8	6.7
<b>Total</b>		120	100.0

Source: Primary Data (2025)

The findings revealed that the majority of respondents were female, constituting 60 % (n = 72) of the total sample, while male respondents accounted for 40 % (n = 48). This indicates that women were more represented in the study compared to men. The higher participation of females may be attributed to the fact that mothers are often more involved in the day-to-day upbringing and education of their children, and are therefore more accessible for studies of this nature in rural communities.

The study further examined the age distribution of respondents. The results showed that 16.7 % (n = 20) of respondents were aged between 20 and 29 years, 36.7 % (n = 44) were aged between 30 and 39 years, 31.6 % (n = 38) were aged between 40 and 49 years, while 15.0 % (n = 18) were aged 50 years and above. This implies that the majority of the respondents were in the 30–49 age bracket, which represents the most active and economically productive age group of parents who are directly responsible for their children's education.

Regarding education level, 11.7 % (n = 14) of the respondents had no formal education, 38.3 % (n = 46) had attained primary education, 31.7 % (n = 38) had completed secondary education, while 18.3 % (n = 22) had acquired tertiary or college education. These findings indicate that most parents had attained at least a basic education, which is essential in influencing their attitudes and decisions concerning their children's schooling. However, the relatively small proportion of respondents with tertiary education suggests that educational attainment among parents in Butansi Sub-County remains generally low.

The findings on marital status indicated that 70 % (n = 84) of respondents were married, 8.3 % (n = 10) were single, 15 % (n = 18) were widowed, and 6.7 % (n = 8) were divorced or separated. The predominance of married respondents suggests that most pupils come from two-parent households,

which may have a positive effect on school enrolment and retention, given that both parents can contribute to educational support and household income.

The study also sought to establish the employment status of the respondents. The findings revealed that 43.3 % (n = 52) were engaged in subsistence farming, 23.3 % (n = 28) were self-employed in small-scale businesses such as petty trade or crafts, 11.7 % (n = 14) were in formal employment, 15 % (n = 18) were unemployed, and 6.7 % (n = 8) worked as casual laborers. These results indicate that the majority of respondents relied on agriculture and informal sector activities as their primary source of livelihood. The predominance of low-income economic activities may have implications for parents' ability to meet school-related expenses, thereby influencing pupils' enrolment rates.

In summary, the demographic profile of the respondents shows that most were female, aged between 30 and 49 years, and had attained primary-level education. A majority were married and depended primarily on subsistence farming for their livelihood. These characteristics reflect the general socio-economic and demographic context of rural communities in Kamuli District and are critical for understanding the relationship between parents' socio-economic status and the enrolment of primary school pupils.

### Parents' level of income in Butansi Sub-County

This section presents and discusses the findings regarding the income levels of parents in Butansi Sub-County and how this affects their ability to support their children's education. The results are based on responses to a set of statements measured on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

**Table 5: Parents' level of income in Butansi Sub-County**

Statements	1	2	3	4	5	Mean	Std Dev
I can enroll my children in UPE schools	10	15	20	40	35	3.50	1.20
I can enroll my children in private tutoring	30	35	25	20	10	2.40	1.19
I can afford to provide my children with textbooks	28	30	25	25	12	2.50	1.22
I buy educational toys for my children	40	35	20	15	10	2.10	1.20

My children have access to computers and the internet for their education	45	30	20	15	10	2.00	1.19
I financially support my children's education at all costs	15	20	30	35	20	3.00	1.20
I earn above the poverty line (1.9 USD or UGX 7,000 per person per day)	40	30	25	15	10	2.10	1.18
I experience difficulty in meeting the feeding needs of my children	10	15	20	30	45	3.60	1.22

Source: Primary Data (2025)

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The findings indicate that the majority of parents can enroll their children in Universal Primary Education (UPE) schools. This is reflected in a relatively high mean score of 3.50 with a standard deviation of 1.20, suggesting that most respondents either agreed or strongly agreed with the statement. This implies that UPE schools, being publicly funded and generally free, are accessible to most families regardless of income levels.

In contrast, the ability of parents to enroll their children in private tutoring services scored a low mean of 2.40 with a standard deviation of 1.19. This indicates that a majority of respondents disagreed or strongly disagreed with the statement. The data suggest that private tutoring is a financial burden that many families in Butansi Sub-County cannot afford, reflecting the limited disposable income among a significant portion of the population.

The ability of parents to provide their children with textbooks yielded a mean score of 2.50 and a standard deviation of 1.22. These values suggest a generally negative perception of parents' ability to afford textbooks. While some parents may occasionally manage to purchase books, the majority seem to struggle with this educational expense, highlighting an ongoing resource gap in many households.

The results show a mean score of 2.10 (SD = 1.20) for the statement regarding the purchase of educational toys. This is among the lowest mean scores, indicating that the purchase of non-essential educational materials is not a priority or financially viable for most parents in the sub-county. This further underscores the financial limitations that restrict educational enrichment opportunities beyond basic schooling.

A similarly low mean of 2.00 (SD = 1.19) was recorded for the statement regarding access to computers and the internet for educational purposes. This reflects a significant digital divide, suggesting that the majority of children in the area lack access to digital learning tools. The implications are particularly concerning in the context of an increasingly digitalized educational landscape, where internet access is becoming essential for learning continuity and information access.

The statement "I financially support my children's education at all costs" received a neutral mean score of 3.00 (SD = 1.20), indicating a mixed response. While some parents strive to prioritize education financially, their efforts may be constrained by limited resources. This neutrality may reflect both commitment and hardship, where willingness exists but the capacity to act on it is often limited.

When asked whether they earn above the poverty line (1.9 USD or UGX 7,000 per person per day), respondents reported a mean of 2.10 (SD = 1.18), showing that a majority disagree with the statement. This confirms that a large proportion of the population in Butansi Sub-County lives below the poverty line, which significantly affects their ability to support various aspects of their children's education.

Interestingly, the highest mean score in this section was recorded for the statement "I experience difficulty in meeting the feeding needs of my children," with a mean of 3.60 and a standard deviation of 1.22. This finding strongly indicates widespread food insecurity among families, and by extension, economic hardship. The data suggest that for many households, basic survival takes precedence over educational expenditures.

Overall, the data reveal that income levels among parents in Butansi Sub-County are generally low, with significant implications for educational access and support. While basic education through UPE is largely accessible, additional educational needs such as tutoring, textbooks, digital access, and enrichment materials are often unmet due to financial constraints. The high level of difficulty reported in meeting even basic needs, such as feeding, further underscores the socio-economic challenges faced by these households. These findings emphasize the need for targeted interventions, both governmental and non-governmental, to support low-income families and ensure equitable educational opportunities for all children.

### Interview responses on parents' income levels and educational support

During the Interview, with Head Teacher said, *"Most of our parents are small-scale farmers who rely on what they harvest for both food and income. Because their earnings are seasonal, it becomes difficult for them to provide consistent financial support for their children's education. Many can afford to send their children to Universal Primary Education (UPE) schools since they are free, but when it comes to extra expenses like textbooks or private tutoring, they simply cannot manage. We sometimes see pupils coming to school without books or lunch."*

Another Head Teacher said, *"Parents here are willing to educate their children, but their income levels are too low. Very few can afford private lessons or digital learning tools,*

*such as computers. The majority of children have never even touched a computer. The poverty levels are high, and sometimes children miss school because there's no food at home or no money for basic school supplies. It's not a lack of interest, it's just financial hardship."*

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Another Head Teacher said, *"Even though education is free under UPE, there are still hidden costs like uniforms, exercise books, and examination fees. Parents often struggle with these. The problem is that most families depend on subsistence farming, and only a handful earn above the poverty line. When harvests fail, enrolment and attendance drop sharply. We also have children who come to school hungry, which affects their concentration in class."*

Another Head Teacher added, *"What I have observed is that parents genuinely value education, but their financial situation doesn't allow them to go beyond the basics. They can send their children to UPE schools because they are government-supported, but private schools or tutoring are completely out of reach for most. Some parents even rely on the school's feeding program when it's available because they cannot meet their children's daily feeding needs at home."*

### Enrolment of Pupils in Butansi Sub-County

**Table 6: Enrolment of Pupils in Butansi Sub-County**

Class	Current Enrolment	Recorded	Number of Boys	Number of Girls	Number of Pupils Above 13 Years
Primary 1	1,800		920	880	0
Primary 2	1,600		810	790	0
Primary 3	1,400		700	700	0
Primary 4	1,200		610	590	15
Primary 5	1,000		500	500	45
Primary 6	800		390	410	212
Primary 7	600		290	310	320
<b>Total</b>	<b>8,400</b>		<b>4,220</b>	<b>4,180</b>	<b>592</b>

*Source: Primary Data (2025)*

Table 6 presents the current enrolment statistics for Primary 1 to Primary 7 in Butansi Sub-County as of 2025. The total enrolment across all classes stands at 8,400 pupils, with 4,220 boys and 4,180 girls, reflecting a near-equal gender distribution. The data further indicates that 592 pupils are above the official primary school age of 13 years, with the majority of these overage learners enrolled in Primary 6 and Primary 7.

Based on the enrolment figures, the following key educational indicators were computed: Gross Enrolment Ratio (GER), Net Enrolment Ratio (NER), Gender Parity Ratio (GPR), and Enrolment Yield.

**Gross Enrolment Ratio (GER):** The Gross Enrolment Ratio for primary education in Butansi Sub-County was calculated at 112%. This implies that the number of enrolled pupils exceeds the official school-age population, which was at 7,500 children aged 6 to 13 years. The GER exceeding 100% suggests that a considerable number of pupils enrolled in primary education are either over-age or under-age, which is a common occurrence in rural settings where late school entry and repetition are prevalent in primary schools in Butansi Sub-County.

**Net Enrolment Ratio (NER):** The Net Enrolment Ratio, which accounts only for pupils within the official primary school age (6–13 years), was found to be 104.1%. This

slightly exceeds the expected maximum of 100%, possibly due to inaccuracies in age reporting or the inclusion of underage learners. Nonetheless, the high NER indicates that primary education is accessible to the majority of school-age children in the Sub-County.

**Gender Parity Ratio (GPR):** The Gender Parity Ratio, computed as the ratio of girls to boys' enrolment, stood at 0.99, demonstrating near parity between male and female pupils. This suggests that both boys and girls in Butansi Sub-County have almost equal access to primary education, a positive indication of progress toward gender equality in schooling.

**Enrolment Yield:** The enrolment yield, defined as the %age of all children in the Sub County (aged 0–18) who are currently enrolled in primary school, was calculated at 84%, based on an estimated total child population of 10,000. This indicates that a substantial proportion of children are in school, although efforts may still be needed to reach the remaining 16% who are either out of school or enrolled in other education levels.

These findings suggest that Butansi Sub-County has made commendable progress in achieving near-universal primary education enrolment and gender parity. However, the presence of a significant number of overage learners and the enrolment shortfall among some age groups point to the



need for targeted interventions, such as age-appropriate re-entry programs, improved early childhood education, and awareness campaigns to reduce late school entry and repetition.

### Correlation findings

**Table 7: Correlation between education level, income level, occupation, and enrolment of pupils in primary schools in Butansi Sub-County.**

	Income level
Enrolment of pupils in Primary Schools	Pearson Correlation = 0.768*
	Sig. (2-tailed) = 0.002
N	120

\*Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data (2025)

The analysis revealed a very strong positive correlation between parents' income level and pupil enrolment, with a Pearson correlation coefficient of 0.768 and a significance level of 0.002. This implies that as household income increases, so does the likelihood of children being enrolled in school. Financial stability enables parents to meet direct

and indirect costs of education, such as uniforms, learning materials, and transport, thus supporting consistent school attendance and enrolment. The strong correlation emphasizes the critical role that economic status plays in educational access in Butansi Sub-County.

**Table 8: Regression analysis of the socioeconomic status of parents and the enrolment of pupils in selected primary schools within Butansi Sub-County, Kamuli District.**

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of Estimate
1	0.812	0.660	0.655	4.321

Source: Primary Data (2025)

**Table 9: ANOVA results**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1,845.23	3	615.08	32.94	0.000
Residual	949.76	236	4.02		
Total	2,794.99	239			

Source: Primary Data (2025)

**Table 10: Regression coefficients**

Predictor	Unstandardized B	Std. Error	Beta ( $\beta$ )	T	Sig. (p-value)
(Constant)	5.320	1.132	—	4.70	0.000
Income Level	0.581	0.088	0.451	6.61	0.000

Source: Primary Data (2025)

Income level had the strongest standardized beta coefficient ( $\beta = 0.451$ ,  $p < 0.001$ ), suggesting that parents' financial capacity is the most influential factor in determining whether their children are enrolled in school. This is consistent with the notion that income directly affects the ability to pay for educational expenses such as fees, uniforms, and scholastic materials.

The regression analysis confirms that the socio-economic status of parents, measured through education, income, and occupation, plays a critical role in determining the enrolment of pupils in primary schools in Butansi Sub-

County. The high  $R^2$  value (66.0%) underscores the importance of these variables in explaining enrolment patterns.

### Discussion of results

**Parents' level of income and enrolment of primary school pupils in Butansi Sub-County, Kamuli district.**

The results from the current study conducted in Butansi Sub-County, Kamuli District, provide strong empirical support to the global literature. The study established a very strong positive correlation between parental income and pupil enrolment, with a Pearson correlation coefficient ( $r$ ) of 0.768 and a significance level of 0.002. This statistically significant result indicates that increases in household income levels are closely associated with higher rates of enrolment in primary schools.

This finding reflects the reality that financially stable households are more capable of meeting both direct and indirect educational costs, such as school fees, uniforms, transportation, and learning materials. It also suggests that when parents have sufficient economic resources, they are better positioned to prioritize long-term educational benefits over short-term income needs, including child labour or domestic responsibilities that often keep children out of school.

Parental income remains one of the most influential socio-economic factors affecting the enrolment of children in primary schools. The economic capacity of a household not only determines the ability to meet direct schooling costs such as tuition fees and uniforms but also influences long-term educational decisions, including enrolment consistency and school completion. The review of existing literature and findings from the current study in Butansi Sub-County affirm the significant and positive relationship between household income levels and primary school enrolment.

Research from various regions consistently points to the fact that higher parental income levels are associated with increased enrolment of children in primary schools, while families with lower income levels face barriers that inhibit school participation. In their study of rural Nigerian communities, Obasi and Okoye (2020) found that income played a central role in determining whether children attended school. The inability to afford basic educational needs—such as fees, uniforms, and textbooks was a common reason for non-enrolment among poorer families. The authors advocated for financial support programs tailored to assist low-income households.

Similarly, Gathara and Kibera (2021) observed that in urban slums, families with limited incomes struggled to enrol their children due to both financial constraints and lack of awareness about available support services. Their findings highlighted the need for policy interventions aimed at minimising the cost of education for low-income households to encourage enrolment.

In the Latin American context, Adams and Howard (2022) reported that parental income strongly influenced educational investment. Wealthier families were not only more capable of covering school expenses but also more willing to invest in quality education for their children. Their recommendation centered around increasing government subsidies to support low-income families, a strategy

similarly echoed by Kwabena and Asante (2022) in Ghana, who found that transportation and ancillary school costs disproportionately affected poorer families' ability to enrol their children.

Urban-focused studies like that of Eke and Igboke (2023) revealed that even in cities with improved educational infrastructure, income disparities continued to affect enrolment. Children from higher-income families had higher rates of enrolment and school retention, indicating that poverty remains a persistent barrier despite geographic advantages.

Karanja and Mwangi (2021) added to this discourse through their exploration of direct and indirect educational costs, noting that for many low-income families in Kenya, school fees, materials, and opportunity costs of sending children to school posed significant challenges. Their recommendation included the introduction of cash transfers and fee waiver programs to incentivize school attendance.

The situation is no different in Latin America, where Mendez and Gomez (2020) found that in rural areas, low household income was inversely related to school enrolment. Infrastructure issues further exacerbated the problem, with financial aid and community-based support mechanisms proposed as critical strategies to mitigate the effects of poverty on education.

From a continental comparative perspective, Okafor and Adebayo (2023) concluded that across several African nations, economic hardship remains one of the foremost barriers to achieving universal primary education. Families in poverty-prone regions were more likely to prioritize basic survival needs over educational expenditure.

In South Asia, Alam and Akhtar (2024) provided further validation by linking financial hardship to school dropout and non-enrolment, while advocating for free education initiatives and targeted financial assistance. This conclusion was also echoed by Mahir and Ibrahim (2025) in Egypt, who found that higher-income households were more likely to ensure consistent enrolment and retention.

## Conclusion

Findings from the study showed a very strong positive correlation between parental income level and pupil enrolment. This suggests that households with higher income levels are significantly more likely to enroll their children in school. Financial stability allows parents to meet both direct and indirect costs of schooling, such as uniforms, learning materials, transport, and food. These results confirm that economic constraints are a major barrier to access to education in low-income communities.

The findings underscore the importance of income-support initiatives such as school feeding programs, education subsidies, or conditional cash transfers to ensure that

children from poor households are not excluded from the education system.

### Recommendation

- The Ministry of Education and local government should provide scholarships, bursaries, or school fee waivers for pupils from low-income households.
- Expand school feeding programs to reduce the financial burden on poor families and encourage daily attendance.
- Local government and NGOs should support small-scale business training and livelihood projects for parents, particularly women, to raise household income.
- Microfinance opportunities could be tailored for rural parents to improve their economic stability and increase their capacity to keep children in school.

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### List of abbreviations

**ASER** – Annual Status of Education Report  
**CSR** – Corporate Social Responsibility  
**CVI** – Content Validity Index  
**GER** – Gross Enrolment Ratio  
**GPE** – Global Partnership for Education  
**GPI** – Gender Parity Index  
**MDGs** – Millennium Development Goals  
**NGOs** – Non-Governmental Organizations  
**NER** – Net Enrolment Ratio  
**SDG4** – Sustainable Development Goal 4 (Quality Education)  
**SES** – Socio-Economic Status

**SPSS** – Statistical Package for the Social Sciences  
**UPE** – Universal Primary Education  
**UNESCO** – United Nations Educational, Scientific, and Cultural Organization  
**UNICEF** – United Nations International Children's Emergency Fund

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### Conflict of interest

There is no conflict of interest.

### Availability of data

Data used in this study are available upon request from the corresponding author.

### Author's contribution

AZ designed the study, conducted data collection, cleaned and analyzed data, drafted the manuscript, and PT supervised all stages of the study from conceptualization of the topic to manuscript writing and submission.

### Authors biography

Alex Zikusooka is a student of Master's of Education Planning and Management at the School of Post Graduate Studies and Research, Team University.

Dr. Patience Tugume is a research supervisor at the School of Post-Graduate Studies and Research, Team University.

Edmand Bakashaba is a research supervisor at the School of Post-Graduate Studies and Research, Team University.

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