**Report on ECDE Enrollment Trends in Kilome Sub-County (2018–2022)**

**Introduction**

This report presents an analysis of Early Childhood Development Education (ECDE) enrollment trends in Kilome Sub-County, focusing on three wards: Kukaa/Kitaingo, Kiima Kiu/Kalonzoni, and Kasikeu. The data covers both public and private ECDE enrollments across a five-year period (2018–2022). The purpose of this report is to examine total enrollments, identify trends, and explore the relationship between public and private enrollments in these wards.

Data Summary

The enrollment data was analyzed for both public and private ECDE centers, considering the following parameters:

Public enrollments from 2018 to 2022

Private enrollments from 2018 to 2022

Total enrollments, computed as the sum of public and private enrollments

The wards included in this study are:

Kukaa/Kitaingo

Kiima Kiu/Kalonzoni

Kasikeu

Total Enrollment Trends (2018–2022)

The analysis reveals significant variations in public and private enrollments across the wards for the years 2018 to 2022:

| **Ward** | **Total Public Enrollment (2018–2022)** | **Total Private Enrollment (2018–2022)** | **Total Enrollment (2018–2022)** |
| --- | --- | --- | --- |
| Kukaa/Kitaingo | 6,257 | 279 | 6,536 |
| Kiima Kiu/Kalonzoni | 9,156 | 1,974 | 11,130 |
| Kasikeu | 8,748 | 2,282 | 11,030 |

Kiima Kiu/Kalonzoni recorded the highest total public enrollments (9,156) and the second-highest private enrollments (1,974) over the five-year period.

Kasikeu had the highest private enrollments, with a total of 2,282 students across all five years.

Kukaa/Kitaingo had the lowest private enrollments (279) compared to the other wards.

Proportions of Public vs. Private Enrollment

Overall, public enrollments outnumber private enrollments across all wards. The proportions of public vs. private enrollment for all wards from 2018 to 2022 are as follows:

Public Enrollment: 82.03%

Private Enrollment: 17.97%

These figures emphasize the dominance of public ECDE centers in Kilome Sub-county, with private enrollments contributing a smaller share of the total.

Visual Representation

**Bar Plot: Public vs Private Enrollment by Ward (2018–2022)**

The bar plot visually represents the distribution of public and private enrollments across the three wards. Public enrollments far surpass private enrollments, especially in Kukaa/Kitaingo, where private enrollment is notably low.



**Pie Charts: Public vs Private Enrollment per Ward (2018–2022)**

Kukaa/Kitaingo: Public enrollment constitutes 95.73%, while private enrollment stands at 4.27%.

Kiima Kiu/Kalonzoni: Public enrollment constitutes 82.26%, while private enrollment stands at 17.74%.

Kasikeu: Public enrollment constitutes 79.31%, while private enrollment stands at 20.69%.









These pie charts highlight the overall dominance of public ECDE enrollments across all wards, with Kukaa/Kitaingo having the highest proportion of public enrollments and Kasikeu having the highest proportion of private enrollments.

Correlation Analysis

**Correlation between Public and Private Enrollment (2018–2022)**

The correlation between public and private enrollments across the wards from 2018 to 2022 is 0.991, indicating a strong positive correlation. This suggests that, an increase in public enrollments is associated with a increase in private enrollments.

Scatter Plots

**Scatter Plot**: Public vs Private Enrollment The scatter plot shows a strong positive relationship between public and private enrollments, suggesting that increases in public enrollment are generally associated with increase in private enrollment.



**Scatter Plot:** Public vs Total Enrollment The scatter plot demonstrates that public enrollments largely predict total enrollments, as the points are close to the line, indicating a strong influence of public enrollments on the total number of students.



**Scatter Plot:** Private vs Total Enrollment A similar upward trend can be seen in private vs total enrollment, although the correlation is weaker, indicating that private enrollments contribute to total enrollments but not as significantly as public enrollments.



Conclusion

The analysis of ECDE enrollments in Kilome Sub-county reveals that public enrollments dominate across all wards, with private enrollments playing a smaller, though still notable, role. Kiima Kiu/Kalonzoni had the highest total enrollments, while Kukaa/Kitaingo had the lowest private enrollments. The strong positive correlation between public and private enrollments suggests an increase in public enrollment are associated with an increase in private enrollment.