**ECDE ENROLLMENT ANALYSIS REPORT FOR MBOONI SUB-COUNTY (2018-2022)**

**Introduction**

This report presents an analysis of the Early Childhood Development and Education (ECDE) enrollment data for Mbooni Sub-county, covering six wards: Mbooni, Tulimani, Kithungo/Kitundu, Kalawa, Kako/Waia, and Kisau/Kiteta. The analysis spans from 2018 to 2022, focusing on total public and private enrollments, correlations, and graphical representations of the enrollment trends.

**Total Public and Private Enrollment for Each Ward**

The total public and private enrollments for each ward are as follows:

| **Ward** | **Public Enrollment** | **Private Enrollment** | **Total Enrollment** |
| --- | --- | --- | --- |
| Mbooni | 2460 | 205 | 2665 |
| Tulimani | 1591 | 146 | 1737 |
| Kithungo/Kitundu | 1808 | 0 | 1808 |
| Kalawa | 1346 | 167 | 1513 |
| Kako/Waia | 1217 | 140 | 1357 |
| Kisau/Kiteta | 1942 | 354 | 2296 |

Total Public and Private Enrollment Overall:

Total Public Enrollment: 10,364

Total Private Enrollment: 1,012

Total Enrollment: 11,376

**Explanation**: Public enrollment makes up a significantly larger proportion of the total enrollment across all wards, with private enrollment contributing a smaller share.

Proportions of Public vs Private Enrollment (Overall):

Proportion of Public Enrollment: 91.1%

Proportion of Private Enrollment: 8.9%

Explanation: The vast majority of ECDE students in Mbooni Sub-county are enrolled in public institutions, with private enrollments contributing a relatively small proportion.

Percentage of Public vs Private Enrollment for Each Ward:

The percentages of public vs private enrollment for each ward are:

| **Ward** | **Percentage Public** | **Percentage Private** |
| --- | --- | --- |
| Mbooni | 92.3% | 7.7% |
| Tulimani | 91.6% | 8.4% |
| Kithungo/Kitundu | 100% | 0% |
| Kalawa | 89.0% | 11.0% |
| Kako/Waia | 89.7% | 10.3% |
| Kisau/Kiteta | 84.6% | 15.4% |

**Explanation**: Kithungo/Kitundu had no private enrollments, while Kisau/Kiteta had the highest proportion of private enrollments at 15.4%. The remaining wards showed a majority of public enrollments, though Kalawa and Kako/Waia had slightly higher private participation than the others.

Bar Plot for Public vs Private Enrollment

A bar plot was generated to visualize public and private enrollments across each ward. This plot highlights the dominance of public enrollments in all wards, with private enrollments being significantly lower.



**Explanation**: The bar plot reveals that public enrollments are far more common than private enrollments in all wards, reinforcing the data from the previous sections.

Pie Chart for Total Public vs Total Private Enrollment

A pie chart was created to show the overall proportions of total public vs total private enrollments:

**Public**: 91.1%

**Private**: 8.9%



**Explanation**: The pie chart illustrates the clear dominance of public enrollments, confirming that the majority of children in ECDE institutions in Mbooni Sub-county attend public schools.

**7. Pie Chart for Each Ward**

Pie charts were generated for each ward to show the distribution of public and private enrollments. The chart for Kithungo/Kitundu showed 100% public enrollment, while the chart for Kisau/Kiteta showed the highest private enrollment percentage.



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**Explanation**: These charts allow for a ward-level comparison, visually demonstrating how each ward contributes to the overall enrollment picture.

Correlation Analysis

Correlation between Public and Private Enrollment: 0.276

Correlation between Public and Total Enrollment: 0.975

Correlation between Private and Total Enrollment: 0.483

Explanation:

The public vs private correlation of **0.276** indicates a **weak positive relationship**. This suggests that, although there is some connection between public and private enrollments, it is not very strong.

The **public vs total correlation** of 0.975 shows a very strong positive relationship, meaning that public enrollments are a major factor in determining total enrollments.

The correlation of 0.483 between private and total enrollments indicates a moderate positive relationship, meaning that as private enrollments increase, total enrollments tend to increase as well. However, since the correlation is less than 0.5, it suggests that private enrollments contribute to the total but not as strongly as other factors, likely including public enrollments.

Scatter Plots

**Public vs Private**: The scatter plot shows a positive trend, with some wards exhibiting high public enrollments but low private enrollments.



**Public vs Total**: A very strong linear relationship is observed, indicating that public enrollments heavily influence the total enrollments.



**Private vs Total**: A moderate linear relationship is seen, indicating that private enrollments have a moderate influence on total enrollments.



**Explanation**: The scatter plots help visualize the correlations. The stronger the correlation coefficient, the more linear the points appear on the scatter plot, with public enrollments having a much clearer relationship with total enrollments than private enrollments do.

Conclusion

The analysis reveals that public enrollments dominate the ECDE landscape in Mbooni Sub-county, with private enrollments playing a much smaller role. The correlations show that public enrollments are strongly linked to total enrollments, while private enrollments have a more moderate impact. This analysis highlights the need to focus on public institutions when considering policies aimed at improving ECDE participation in the area.

Efforts to encourage private enrollments could be targeted in specific wards, such as Kisau/Kiteta, which already has a relatively higher proportion of private enrollments. Further investigation into why some wards have no private enrollments (e.g., Kithungo/Kitundu) may also be valuable.