

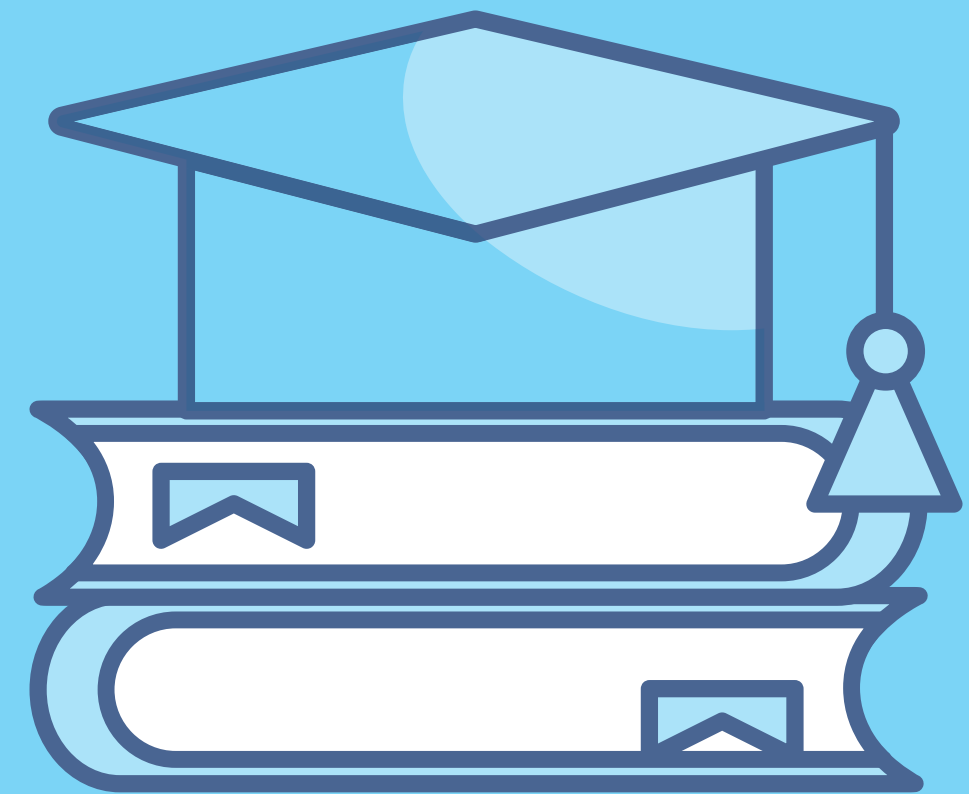
DALBERG DATA INSIGHTS (DDI)



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# ENHANCING ACCESS TO QUALITY EDUCATION IN NAIROBI, KENYA

PRESENTATION



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# Introduction

Nairobi has **improved education access since 2010, with free primary education** and more focus on secondary education.

Increased **demand for schools** due to city growth, leading to new and expanded facilities.

Issues like **overcrowded classrooms, unequal resources, and differences between public and private schools.**

This presentation **explores the growth in school enrollment, the impact of urbanization on education infrastructure, and recommendations** to address the ongoing challenges.

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# Objectives

Main objective

**Leverage exploratory data analysis to provide data-driven insights that optimize resource allocation and improve equitable access to quality education in Nairobi.**

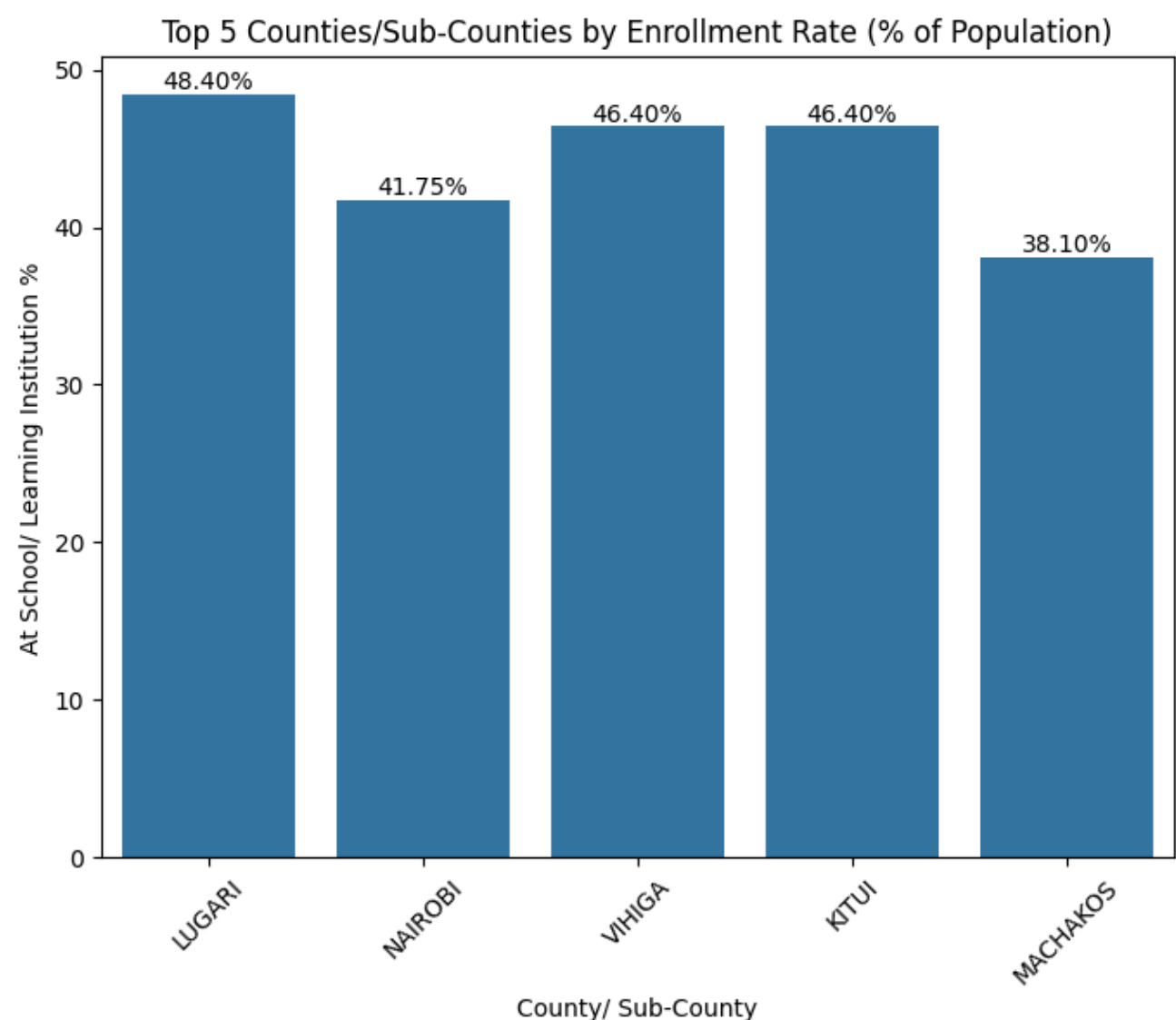
**Choose and preprocess relevant datasets** on school infrastructure, demographics, and education outcomes in Nairobi, ensuring data quality and readiness for analysis. →

To apply Exploratory Data Analysis (EDA) techniques **to uncover key insights within the data**, highlighting areas of disparity and potential improvement in education access →

To **propose targeted recommendations** for prioritizing investments in infrastructure and resources to improve education access and quality. →

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# Enrollment rate by Region

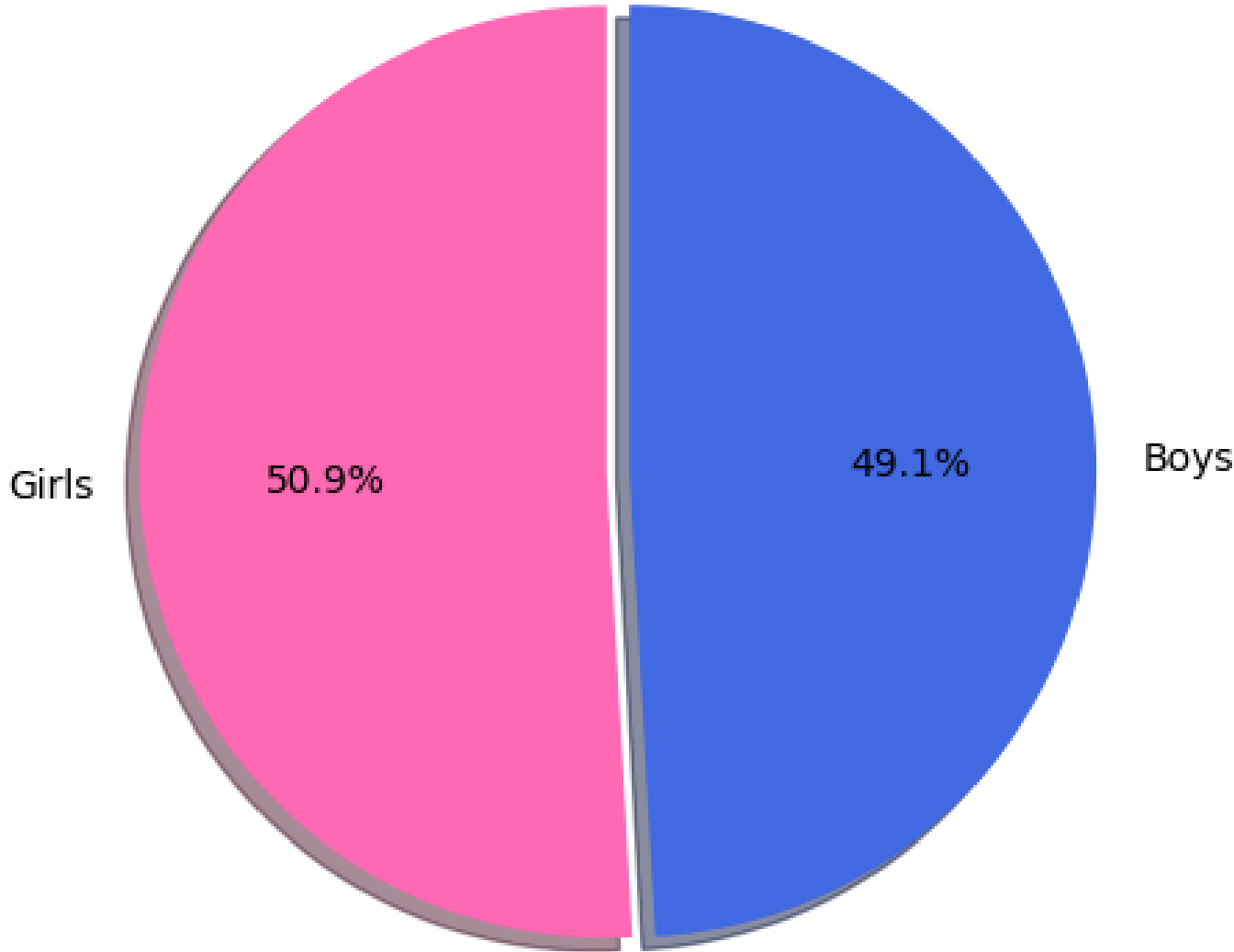


The bar plot shows that **Nairobi is among the top five counties with the highest enrollment rates**, along with Lugari, Vihiga, Machakos, and Kitui.

This highlights Nairobi's progress in increasing school enrollment, though further analysis is needed to ensure it aligns with improvements in infrastructure and resources.



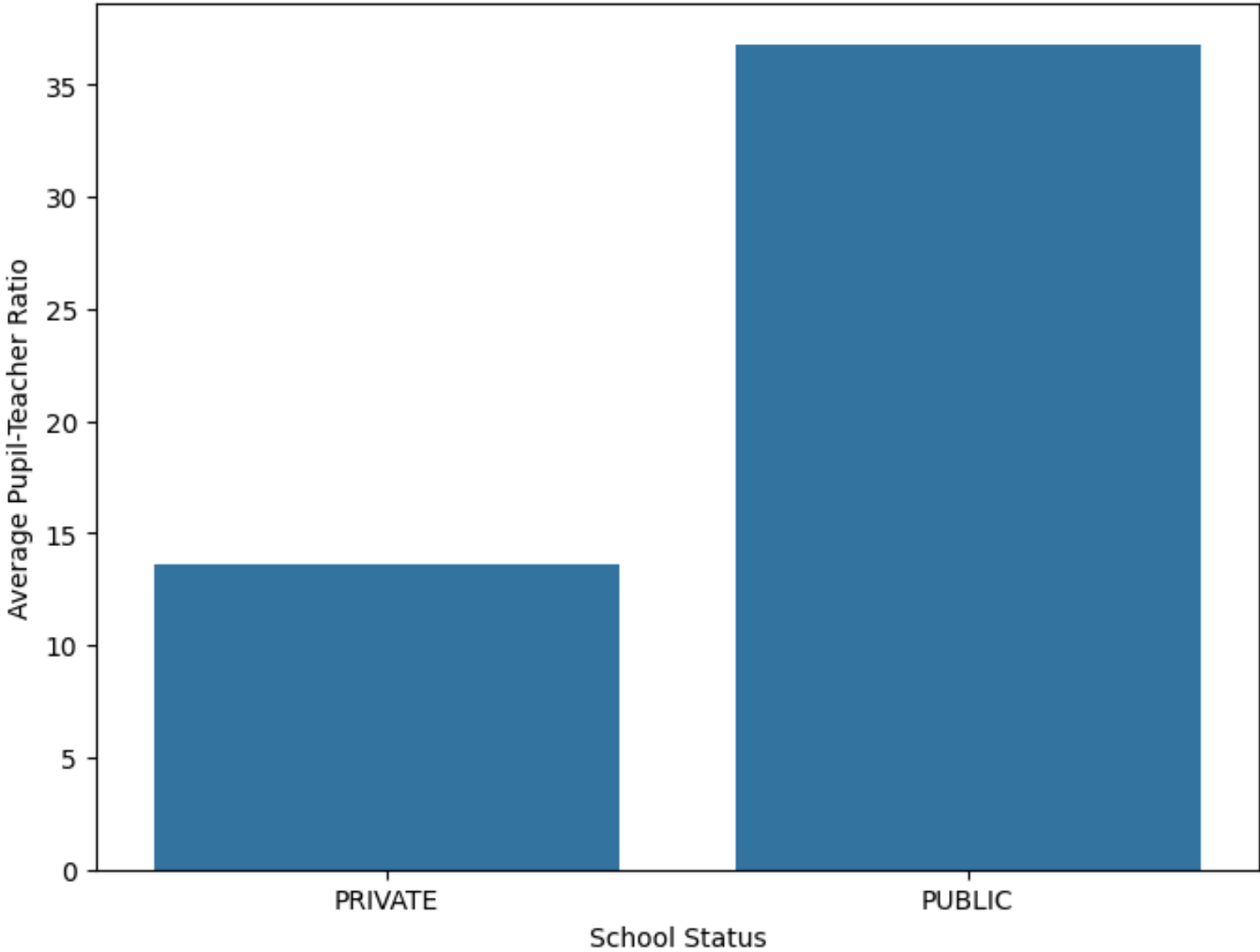
Gender-based Enrollment in Nairobi Schools



Higher enrollment rates for girls compared to **boys** suggest progress in promoting female education but also gender disparities that need to be addressed to ensure equal access for all.

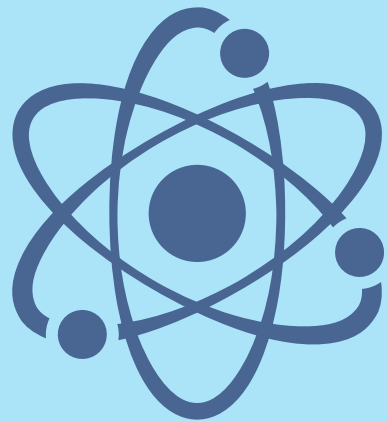
A higher pupil-teacher ratio in public schools leads to overcrowded classrooms, reduced individual attention, teacher burnout, and compromised education quality. It reflects inequalities in resource allocation across schools.

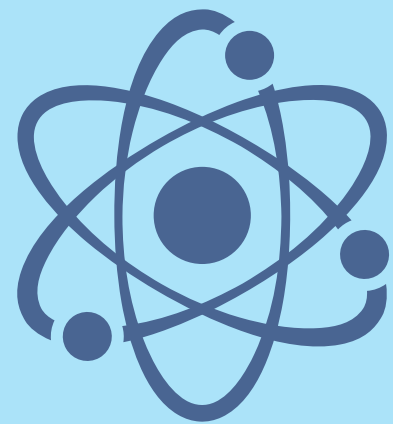
Average Pupil-Teacher Ratio by School Status in Nairobi



# Conclusions

1. **A high pupil-teacher ratio in public schools** leads to overcrowded classrooms, reduced individual attention, teacher burnout, and compromised education quality. It reflects inequalities in resource allocation across schools.
2. **Nairobi has been listed as one of the counties with high enrollment rates** which might indicate greater access to education, but they may strain existing resources and infrastructure, potentially affecting the quality of education.
3. **Higher enrollment rates for girls compared to boys** suggest progress in promoting female education but may also highlight gender disparities that need to be addressed to ensure equal access for all.
4. **Higher toilet ratios in public schools** indicate a potential issue with sanitation and hygiene facilities, which can impact students' health and their ability to attend school regularly.
5. When **attendance rates are similar in both public and private schools**, it suggests that factors other than school type, such as location or socioeconomic status, may be influencing students' ability to attend school regularly.





# Recommendations

1. To address the high pupil-teacher ratios in public schools efforts should **focus on recruiting more teachers, building additional classrooms, and providing professional development programs** to support educators. Focusing resources on underserved areas will help ensure equitable access to quality education.
2. To manage high enrollment rates in schools in Nairobi county, institutions should consider **expanding educational infrastructure, allocating more resources, and ensuring that the quality of education is maintained.**
3. To ensure gender equality in education, institutions need to **focus on encouraging boys' enrollment where needed, while continuing to support initiatives that sustain and promote girls' education.**
4. To improve conditions, such as higher toilet rates in public schools, they need to **increase the availability and maintenance of sanitary facilities in schools,** ensuring that adequate toilets are provided for both boys and girls to promote better health and attendance.
5. **Focus on addressing external factors like transportation, health, and family support systems** to improve overall attendance rates, ensuring that all students, regardless of school type, have equal opportunities to attend regularly.