



paper TRAILS

Presentation By
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INTRO



Having just completed my own journey through school, I have been overwhelmed with gratitude. Though typical of every gratitude moment in a human being, thoughts drifted in comparison to the students who like me made it and especially to the other side of the coin - those who never made it to the end. Whether due to inequality, systemic failures, or socioeconomic challenges, they did not get the chance to prove their educational journey. This project is a way of asking: how can we help more students make it to the finish line?

RESEARCH QUESTION?

How do KCSE examination participation rates vary by

1. Gender

2. Age group

3. Region in Kenya

What trends emerge over time?

Data Scope

1. Years: 2022, 2023, 2024

2. Categories: Gender, Age Group, Region, Registration vs Sitting



WHY?



- 01** KCSE candidature as a proxy for educational success – Students sitting the KCSE represent those who have successfully navigated Kenya’s secondary education system.
- 02** Regional equity analysis – County-level data reveals disparities and inequalities in access and retention.
- 03** Gender parity insights – Identifies gender gaps and geographical variance in female vs male completion rates.
- 04** Age pattern analysis – Over-age candidature often reveals issues like delayed school entry, repetition, or dropout-reentry cycles.

HYPOTHESES

- There is no significant difference in KCSE participation rates between male and female candidates across counties.
- Age group distribution among KCSE candidates is consistent across counties and regions.
- All counties/regions have similar KCSE participation rates per school-aged population.
- KCSE candidature trends (overall numbers, gender balance, and age groups) remained constant between 2022 and 2024.
- There is no significant difference between the number of candidates registered and those who sat for KCSE across counties.

KEY AREAS EXPLORED

1. Which counties and regions are underperforming in getting students to the KCSE exam?
2. Are there notable gender disparities, and do they vary by county or region?
3. How does age distribution of candidates reflect issues like delayed enrollment or interrupted schooling?
4. How has total candidature evolved from 2022 to 2024, especially by gender?
5. What are the dropout trends by gender, region, and year?
6. Which regions show consistent growth or decline in candidature?
7. Are there signs of educational inequality across Kenya's regions?



ANALYSIS

CANDIDATURE BY GENDER OVER TIME

Trend Insight:

While overall candidature has increased steadily over the years, male candidates still slightly outnumber female candidates nationally. However, the gender gap appears to be narrowing.

Implication:

Sustained efforts in promoting girl-child education are showing progress, but some regions may still require targeted gender parity interventions.



CANDIDATES BY AGE GROUP (2024)

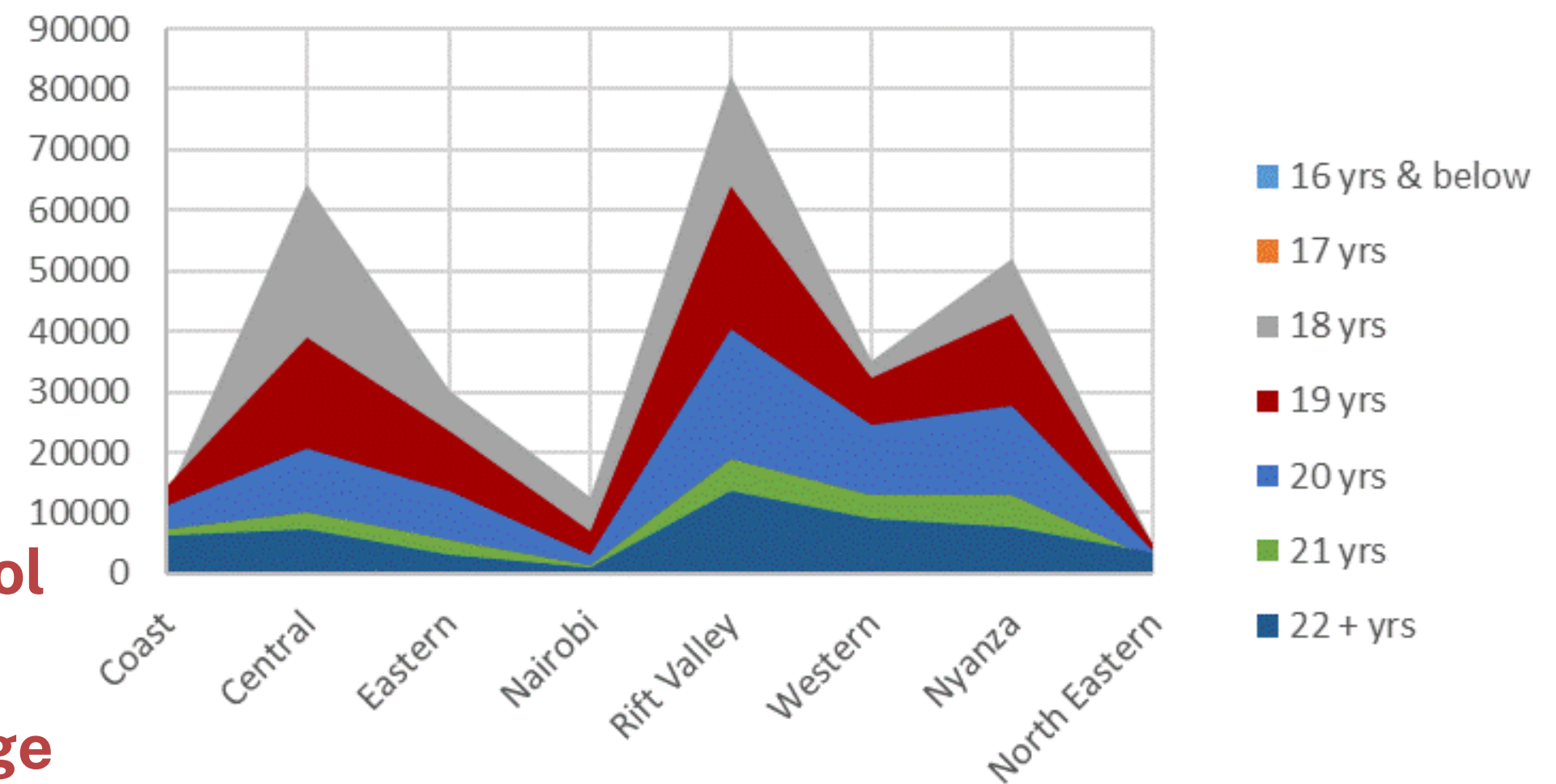
Trend Insight:

A majority of candidates fall between the ages of 17–20, aligning with expected schooling age. However, a noticeable proportion of over-age candidates (21+) suggests systemic delays.

Implication:

This signals the need to address late school entry, repetition, and re-entry policies — particularly in counties with higher over-age representation.

CANDIDATES' AGE GROUP REGIONWISE (2024)



CANDIDATURE BY COUNTY (2023)

Trend Insight:

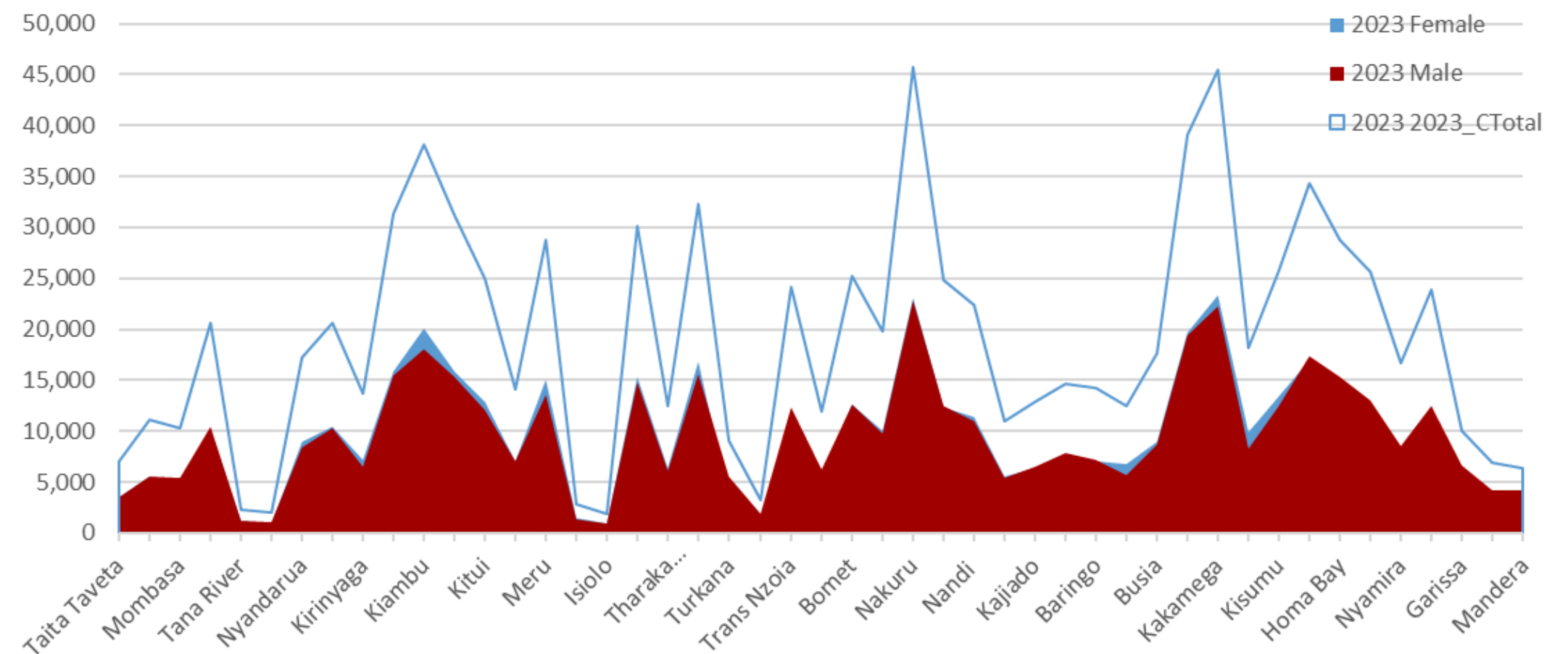
Urban and high-population counties (e.g., Nairobi, Kiambu, Nakuru) show high candidature numbers.

Marginalized counties in arid and semi-arid lands (ASALs) show lower participation.

Recommendation:

Boost infrastructure, conditional cash transfers, and mentorship programs in underperforming counties to improve school retention and KCSE transition.

2023 CANDIDATURE REGION WISE



REGIONAL CANDIDATURE COMPARISON

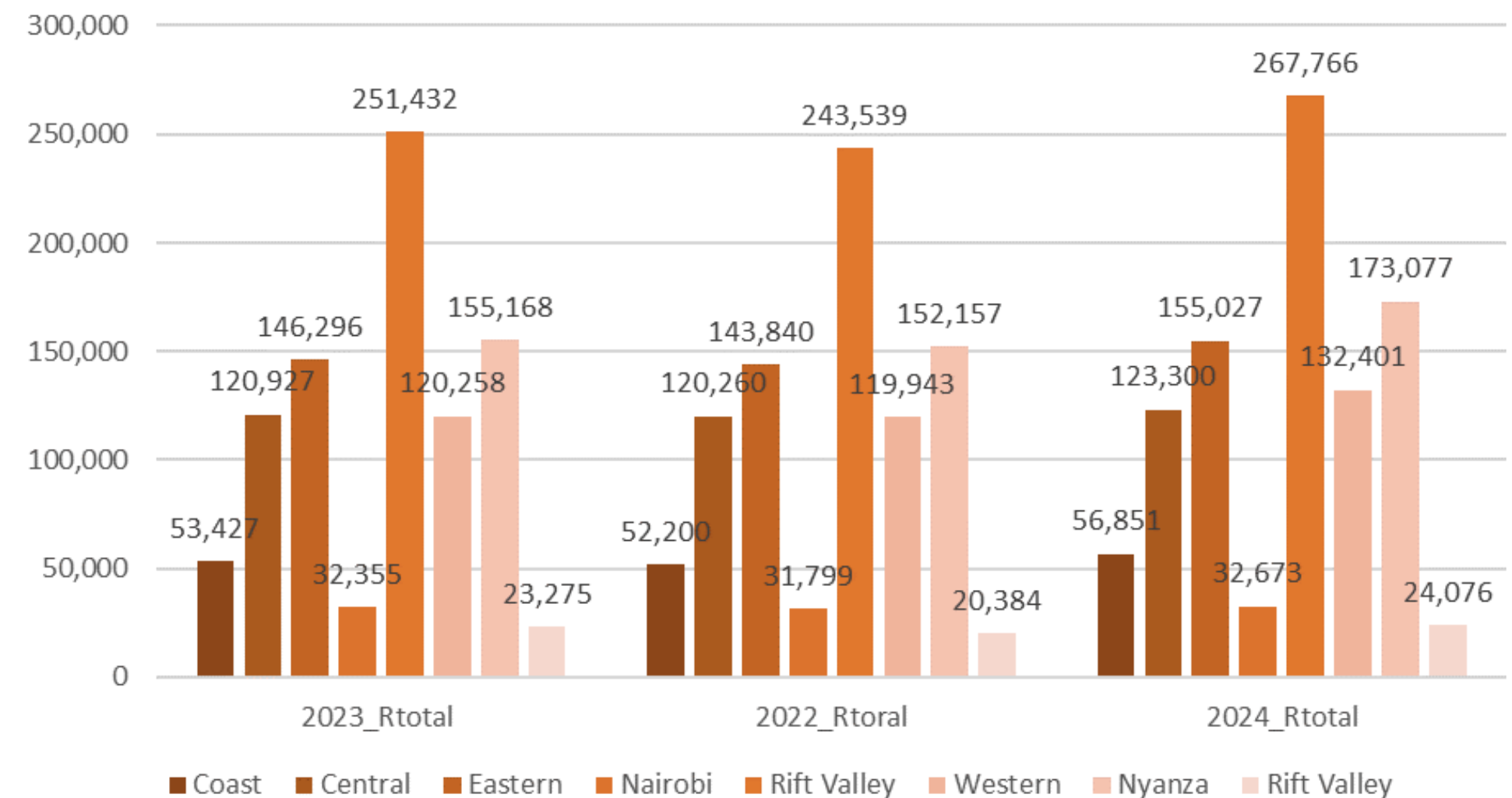
Trend Insight:

All regions recorded growth, but Nyanza and Rift Valley regions showed the most consistent increases in candidature across the three years.

Implication:

These positive growth patterns can guide replication strategies in lower-performing regions by analyzing what interventions have worked in high-growth zones.

ANNUAL CANDIDATURE PER REGION



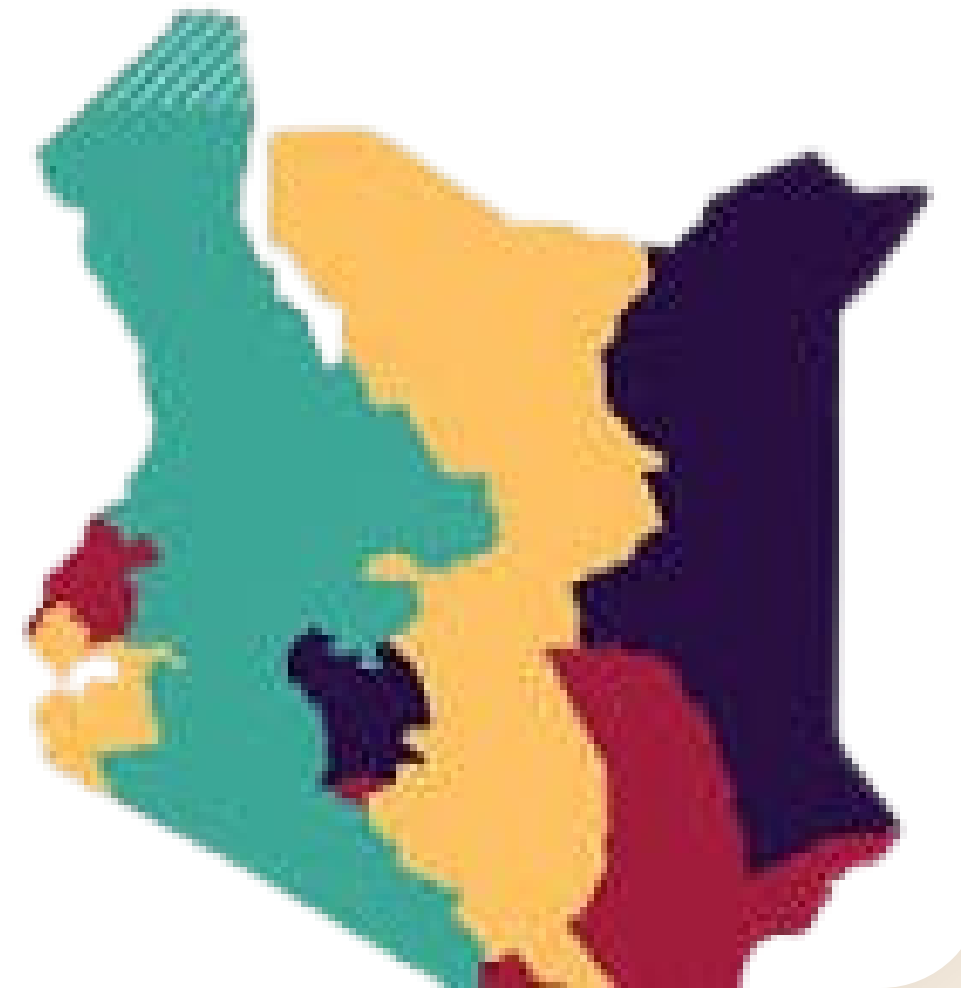
GENDER DISPARITY BY REGION

Trend Insight:

Some counties (e.g., Turkana, Mandera) still show significant gender gaps in favour of male candidates, while others (e.g., Nairobi, Kirinyaga) have achieved near gender parity or female-majority candidature.

Recommendation:

Localised gender-specific policies should be adopted rather than a one-size-fits-all national approach.



AGE DISTRIBUTION OVER TIME

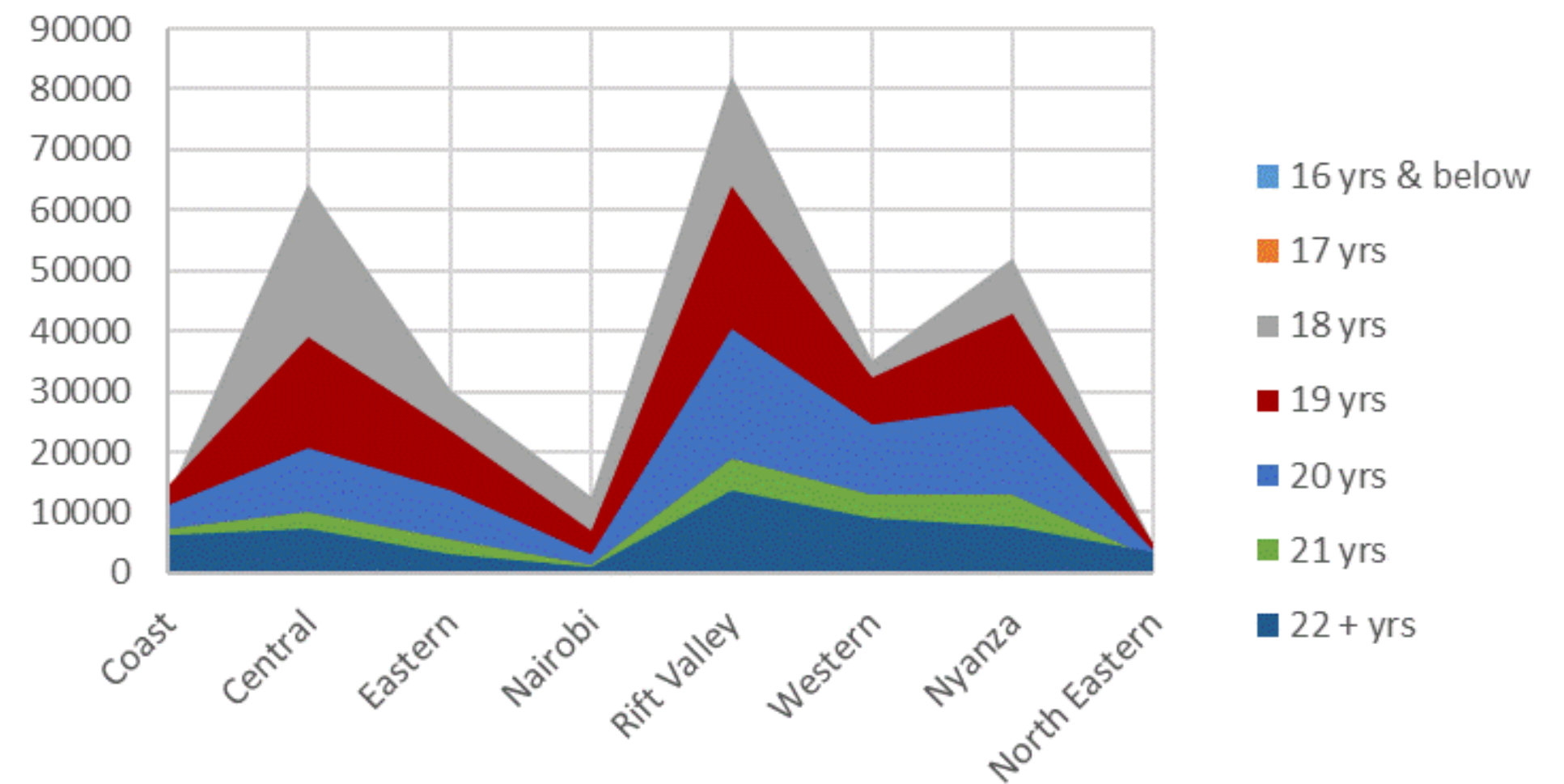
Trend Insight:

Although the bulk of candidates remain within the typical age range each year, the proportion of over-age candidates has not significantly decreased.

Implication:

There is a need to analyze systemic inefficiencies (e.g., school dropout and re-entry trends) and strengthen early childhood and foundational education systems.

CANDIDATES' AGE GROUP REGIONWISE (2024)



CONCLUSION

- The candidature trends analysed 2024 show steady national progress toward gender parity and overall growth in participation.
- However, regional and age-group disparities persist — especially in marginalized counties where over-age candidates and lower female enrolment signal systemic barriers.
- These findings highlight the need for targeted, region-specific education policies to improve equity and retention.
- As Kenya strives for inclusive education, this analysis offers vital insights to ensure that every learner, regardless of gender or location, has a fair chance to complete secondary school.



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THANK you

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