UTME 2025 Score Analysis Report

Executive Summary

This report presents a comprehensive statistical review of the 2025 Unified Tertiary Matriculation Examination (UTME) performance outcomes. While the Joint Admissions and Matriculation Board (JAMB) published score band distributions, there was a notable lack of granularity and depth in statistical interpretation. To address this, a synthetic dataset was generated that respects the official band counts but provides individual-level realism using truncated normal distributions. We evaluate score distribution, central tendencies, score bands, outliers, quantiles, and perform statistical tests to assess differences across performance groups. Finally, we offer data-driven recommendations to support policy and educational equity efforts.

1. Data Simulation Approach

The original score data released by JAMB only included aggregate counts across predefined score bands. To approximate individual-level data suitable for robust statistical analysis, we simulated a synthetic dataset of 1,955,069 scores. Each score band was treated as a truncated normal distribution with a band-specific mean and standard deviation. This allowed us to generate scores that are realistically clustered rather than uniformly flat within bands. The result is a dataset that mirrors real-life test score behavior while preserving official score counts.

2. Descriptive Statistics

The table below provides descriptive statistics summarizing candidate performance across the simulated population. Most candidates scored between 155 and 193, with a mean score of approximately 183. The minimum and maximum observed values (33 and 394, respectively) highlight the full range of performance.

*This report is based on simulated data generated from publicly available UTME score distributions. It does not reflect actual candidate-level scores by JAMB.

Table 1: Summary Statistics of Simulated UTME Scores

Statistic	Value
Candidate Count	1,955,069
Mean Score	182.72
Standard Deviation	34.33
Minimum Score	33.00
25th Percentile	155.00
Median (50th)	178.00
75th Percentile	193.00
Maximum Score	394.00

3. Score Distribution

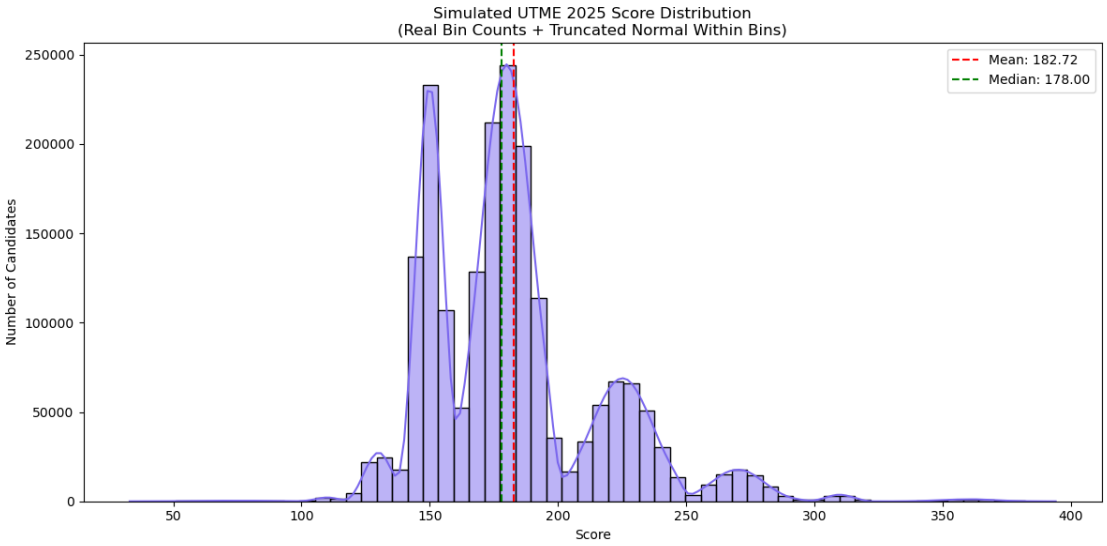

Figure 1: Distribution of Simulated UTME 2025 Scores

The distribution follows a unimodal, right-skewed shape, which is expected in large-scale standardized testing. Most candidates cluster around the median, with progressively fewer candidates scoring at the extremes. The vertical lines denote the mean and median, which are close but not equal, reflecting a mild positive skew.

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4. Outlier Analysis via Boxplot

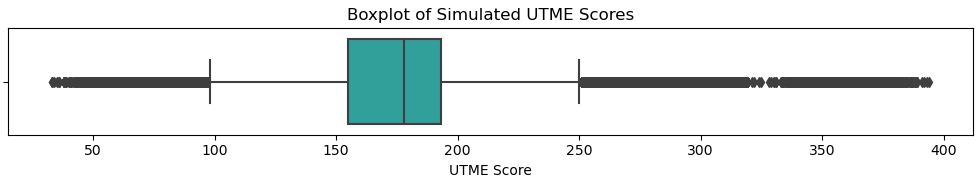

Figure 2: Boxplot of UTME 2025 Scores

The boxplot visualization highlights the interquartile range (IQR), median, and several mild outliers in the tails. While a few extremely low or high scores exist, the bulk of candidates fall within a well-defined central range, consistent with healthy test spread.

5. Score Band Breakdown

Understanding candidate performance by official JAMB score bands remains essential for admissions planning and national benchmarking. The table below provides both absolute counts and proportions, followed by a visual representation.

Table 2: Candidate Distribution by Score Band

Score Band	Candidates	Percentage (%)
0–99	2,031	0.10
100–119	3,820	0.20
120–139	57,419	2.94
140–159	488,197	24.97
160–199	983,187	50.29
200–249	334,560	17.11
250–299	73,441	3.76
300–319	7,658	0.39
320–400	4,756	0.24

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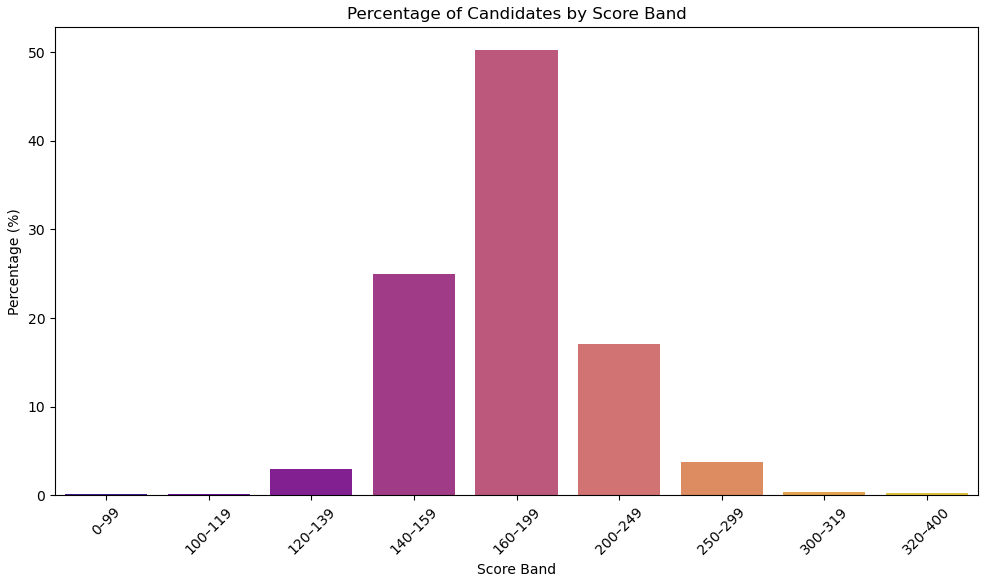

Figure 3: Percentage of Candidates in Each Score Band

Approximately 75% of candidates scored below 200, underscoring the need for preparatory and remedial efforts. Only a small fraction (less than 1%) scored above 300.

6. Quantile Thresholds

Decile-based quantiles offer a more granular way to stratify performance and set thresholds for merit-based policies or cutoff design.

Table 3: Decile Thresholds for UTME 2025 Scores

Quantile	Score
10th	147.00
20th	152.00
30th	164.00
40th	173.00
50th (Median)	178.00
60th	183.00
70th	189.00
80th	210.00
90th	230.00

Candidates scoring below 147 fall into the bottom 10%, while those above 230 are in the top 10%. This stratification can support tiered scholarship models or performance flags for interventions.

7. Performance Extremes: Top vs Bottom Deciles

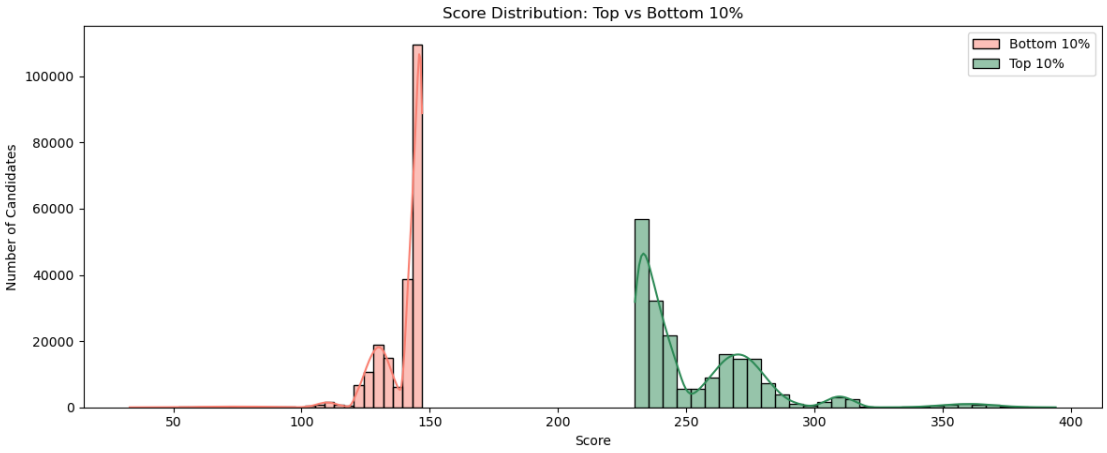

Figure 4: Score Distribution of Top vs Bottom 10% of Candidates

The top decile exhibits a sharper, left-skewed concentration above 230, while the bottom 10% shows greater spread and a slower right tail. These differences underscore varied learning outcomes and may reflect unequal access to educational resources.

8. Distribution Shape

- **Skewness:** 1.16 (mild positive skew, more low scores than high)
- **Kurtosis:** 2.33 (slightly platykurtic; lighter tails than normal)

These shape indicators confirm a common pattern seen in large testing cohorts: a peak near the mean with a gradual decline in higher scores.

9. Statistical Tests Between Bands

T-Test: 160–199 vs 200–249

- t-statistic = -2205.76, p-value < 0.0001

Levene's Test: Equality of Variance

- W = 23,105.38, p-value < 0.0001

ANOVA (140–299)

- F = 8,321,051.71, p-value < 0.0001

Mann–Whitney U Test

- U = 0.00, p-value < 0.0001

Each test confirms statistically significant differences in score distributions across bands — evidence that grouping candidates by raw score bands is meaningful for policy and reporting.

10. Key Recommendations

- **Improve Data Transparency:** In future cycles, JAMB and related bodies should consider releasing anonymized microdata that includes candidate-level information such as gender, age group, state of origin, and local government area. This will facilitate deeper insights, such as equity analysis and regional trends.
- **Geospatial Insights:** With geographic identifiers, one could identify underperforming districts and states, helping direct remedial resources (e.g., teacher training, facility upgrades) where they are most needed.
- **Demographic Disparities:** Access to gender and age data would support gender-sensitive policies, including targeting scholarship interventions or mentorship pipelines where one group consistently underperforms.
- **Longitudinal Potential:** Unique (but anonymized) IDs could enable longitudinal tracking of candidate performance across attempts, offering insight into learning progress or stagnation.
- **Evidence-based Interventions:** Richer data granularity allows for federal, state, and LGA-level educational boards to design **targeted and measurable interventions**, rather than relying on blanket policies.

Conclusion

This analysis shows that even when working with banded public data, meaningful insights can be extracted via carefully structured simulation and statistical methods. The 2025 UTME scores show considerable concentration below the 200-mark, and clear statistical separation exists between performance bands. However, without additional demographic and geographic context, our ability to explain why such disparities exist remains limited. We urge greater transparency and data sharing by education authorities to empower research-driven solutions for national development.