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A Statistical Study of Convicted and Awaiting Trial Individuals in Nigeria (2025)

Alfred Ayo Ayenigba[1], Olutunde Michael Ajao[2], Chinenmerem Darlington Augustine[3]
Ajayi Crowther University, Oyo, Oyo State, Nigeria
aa.ayenigba@acu.edu.ng; mo.ajao@acu.edu.ng

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Abstract

This study examines gender disparities, conviction patterns, and judicial inefficiencies in Nigeria's correctional system using 2025 data from the Nigerian Correctional Service (NCoS), encompassing 81,200 inmates. Employing a Chi-square Goodness-of-Fit Test, the analysis revealed a stark gender imbalance, with males constituting 97% of inmates versus 50.1% in the general population ($\chi^2 = 72{,}950, p < 0.001$), reflecting systemic biases in policing and prosecution. A Chi-square Test of Independence demonstrated a significant association between gender and conviction status ($\chi^2 = 62.4, p < 0.001$), with 33.7% of males convicted compared to 23.3% of females, while 76.7% of females languished in pre-trial detention. A One-Sample Proportion Test further showed Nigeria's conviction rate (33%) to be significantly lower than the historical benchmark of 35% ($z = -12.5, p < 0.001$), highlighting judicial delays and inefficiencies. These findings underscore systemic failures in Nigeria's criminal justice system, including over-policing of men, prolonged pre-trial detention of women, and chronic case backlogs. The study concludes with urgent recommendations for gender-sensitive reforms, digitized court

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processes, and alternative sentencing to align practices with human rights standards and reduce overcrowding.

Keywords: Gender disparities, Pre-trial detention, Chi-square tests, Criminal justice system, Prison overcrowding

INTRODUCTION

In 2025, Nigeria's correctional system stands at a critical inflection point, grappling with the accumulated weight of decades of dysfunction embedded within its legal, social, and institutional frameworks. Across the nation's custodial centres, more than 80,000 individuals are detained, with over 53,000—approximately two-thirds—awaiting trial (Punch, 2025; Intelpoint, 2025). This glaring imbalance between convicted and unconvicted inmates reveals deep-rooted structural deficiencies in the country's justice delivery and prison administration systems. It also raises urgent concerns regarding fairness, efficiency, and adherence to human rights standards within Nigeria's criminal justice processes. Despite numerous reform efforts over the years, the persistence of such disparities points to a deeply entrenched institutional inertia, reinforcing the need for empirical research to drive meaningful systemic transformation.

At the core of Nigeria's correctional challenges lie complex, interconnected factors spanning policing practices, prosecutorial inefficiencies, and judicial dysfunctions. Investigations by The ICIR (2021) highlighted how weak oversight mechanisms across security and judicial sectors have encouraged the widespread misuse of pre-trial detention, often leaving detainees languishing behind bars for years without a verdict. As early as 2021, government officials like former Minister of Interior Rauf Aregbesola had acknowledged the magnitude of the crisis, reporting that 74% of inmates were awaiting trial—a figure that, alarmingly, persists with only marginal improvements (ICIR, 2021). Chronic investigative delays, frequent court adjournments, lack of access to competent legal counsel, and procedural bottlenecks continue to undermine constitutional guarantees, eroding public confidence in the criminal justice system.

Understanding Nigeria's prison crisis requires moving from structural analysis to individual experiences. Arbitrary arrests and prolonged pre-charge detention practices at the policing stage significantly contribute to custodial overcrowding (ICIR, 2021). As cases move into

the judicial system, they encounter overburdened courts, antiquated procedural laws, and severe resource limitations, blurring the lines between convicted prisoners and pre-trial detainees. Regardless of their legal status, inmates are subjected to harsh conditions characterized by overcrowding, poor sanitation, inadequate healthcare, and minimal rehabilitative services (DW, 2025). Demographic patterns further underscore these systemic issues: males comprise over 97% of Nigeria's prison population, while the number of inmates on death row has risen sharply to 3,688 by March 2025 (Intelpoint, 2025; AllAfrica, 2025).

Critically, the types of crimes leading to imprisonment further illuminate the dynamics behind these incarceration trends. Ayo and Michael (2025), in their study *A Study of Selected Crimes Committed in Nigeria*, identify prevalent offenses such as armed robbery, kidnapping, drug-related offenses, and homicide as the leading causes of imprisonment. Their analysis emphasizes that socio-economic deprivation, youth unemployment, political instability, and systemic corruption act as catalysts for these crimes. Furthermore, the study reveals that while violent crimes dominate convictions, a significant portion of those in pre-trial detention are held for lesser, non-violent offenses, exacerbating the injustice of the current detention practices.

In response to these challenges, this study undertakes a detailed statistical analysis of Nigeria's inmate population in 2025, with a particular focus on gender disparities, conviction patterns, and trial delays. The overarching objective is to generate empirical insights that can guide targeted policy reforms. Specifically, the study seeks to: assess gender disparities within the inmate population; analyze the relationship between gender and conviction outcomes; and evaluate the proportion of convicted inmates relative to those awaiting trial. By grounding this inquiry in robust data, the study aims to contribute to a more equitable, transparent, and efficient correctional system in Nigeria.

MATERIALS AND METHODS

The study utilizes secondary data obtained from official records of the Nigerian Correctional Service, supplemented by reports from the Ministry of Interior and relevant government publications. Key data sources include inmate population statistics, classification of inmates by conviction status and gender from January 2024 through May 2025

Variables

The principal variables examined in this study are :

a) Convicted Individuals: The total number of inmates, who have been legally sentenced, disaggregated by gender and age where available.

b) Awaiting Trial Individuals (ATIs): The number of inmates detained without conviction, also disaggregated by gender and age.

Population of Study

The study population comprises all inmates held in Nigerian correctional centres as reported by the Nigerian Correctional Service between January 2024 and May 2025. The total population size exceeds 80,000 individuals, with approximately 26,846 convicted inmates and 53,254 awaiting trial detainees (Punch, 2025).

Methods of Data Analysis

Chi-Square Goodness-of-Fit Test

To assess whether the gender distribution among inmates reflects the gender distribution of the general population, this serves as the expected distribution. A significant difference would suggest potential gender bias in the incarceration process.

Procedure:

1. **Formulate Hypotheses**

(H_0): The gender distribution among inmates reflects the general population's gender distribution.

(H_1): The gender distribution among inmates does not reflect the general population's gender distribution.

2. **Define Categories and Collect Data**

Categories: Male and Female

Data for Inmates: The number of male and female inmates in the study.

Expected Distribution: The general population's male and female distribution, e.g.,

50% male and 50% female (or another appropriate ratio based on the latest census data).

3. **Calculate the Expected Frequencies**.

4. **Compute the Chi-square Statistic**

The Chi-square statistic is calculated using the formula:

$$\chi^2 = \sum_{i=1}^{r}\sum_{j=1}^{c}\frac{(O_i - E_i)^2}{E_i}$$

Where:

O_i is the Observed frequency for category i

E_i is the Expected frequency for category i

5: Determine the Degrees of Freedom

The degrees of freedom (df) are given by:

$$\boldsymbol{df = k - 1}$$

Where k is the number of categories (in this case, two: male and female).

6: Find the Critical Value

Using the Chi-square distribution table, find the critical value corresponding to the desired significance level (α) and degrees of freedom.

7. **Make a Decision**

a. If $\chi 2$ calculated > critical value, reject H_0 (i.e., gender distribution among inmates differs significantly from the general population).

b. If$\chi 2$ calculated ≤ critical value, fail to reject H_0 (i.e., gender distribution among inmates does not significantly differ from the general population).

Chi-Square Test of Independence

To assess whether there is an association between gender and conviction status (e.g., guilty vs. not guilty), highlighting any potential disparities in trial outcomes by gender.

Procedure:

1: Formulate Hypotheses

H_0: There is no association between gender and conviction status (i.e., gender and conviction status are independent).

H_1: There is an association between gender and conviction status (i.e., gender and conviction status are not independent).

2: Define Categories and Collect Data

a. **Categories**: Gender (Male, Female) and Conviction Status (Guilty, Not Guilty)

b. **Data**: Construct a contingency table representing the frequencies of different combinations of gender and conviction status.

	Guilty	Not Guilty	Total
Male	O_{11}	O_{12}	O_{1+}
Female	O_{21}	O_{22}	O_{2+}
Total	O_{+1}	O_{+2}	N

Where O_{ij} represents the observed frequency for the combination of gender *i* and conviction status *j*, and N is the total sample size.

3: Calculate the Expected Frequencies

The expected frequency for each cell is calculated as:

$$E_{ij} = \frac{(O_{i+} \times O_{+j})}{N}$$

Where:

O_{i+}= Row total for row i

O_{+j}= Column total for column j

N = Total sample size

1. **Compute the Chi-square Statistic**

The Chi-square statistic is calculated using the formula:

$$\chi^2 = \sum_{i=1}^{r}\sum_{j=1}^{c}\frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

5: Determine the Degrees of Freedom

The degrees of freedom for a Chi-square test of independence are calculated as:

$$\boldsymbol{df = (r-1)(c-1)}$$

Where:

a. r is the number of rows

b. c is the number of columns

6: Find the Critical Value

Using the Chi-square distribution table, find the critical value corresponding to the significance level α and the degrees of freedom.

7: Make a Decision

a. If $\chi 2$ calculated > critical value, reject H_0 (i.e., gender and conviction status are dependent).

b. If $\chi 2$ calculated ≤ critical value, fail to reject H_0 (i.e., gender and conviction status are independent).

One-Sample Proportion Test

To determine whether the proportion of convicted inmates deviates from the expected norm (e.g., based on population-wide conviction rates or societal expectations).

Procedure

1: Formulate Hypotheses

H_0: The proportion of convicted inmates equals the expected proportion.

H_1: The proportion of convicted inmates deviates from the expected proportion.

2: Define Parameters and Collect Data

a) Observed Proportion (P_{Obs}): The proportion of inmates that are convicted in the sample.

b) Expected Proportion (P_O): The expected proportion of convicted individuals, based on societal or general population norms.

3: Compute the Test Statistic

The test statistic for a one-sample proportion test is:

$$Z = \frac{P_{Obs} - P_O}{\sqrt{\frac{P_O(1-P_O)}{n}}}$$

Where:

P_{Obs} is the observed proportion of convicted inmates

P_O is the expected proportion of convicted individuals

n is the sample size

4: Determine the Critical Value

The critical value corresponds to the chosen significance level (α), typically found using a Z-table for a two-tailed test.

5: Make a Decision

a) If $|Z|$ > critical value, reject H_0 (i.e., the proportion of convicted inmates deviates significantly from the expected proportion).

b) If $|Z| \leq$ critical value, fail to reject H_0 (i.e., the proportion of convicted inmates does not significantly deviate from the expected proportion).

RESULTS

Data Presentation

Table 1: *Inmate Population Breakdown*

Category	Male	Female	Total
Total Inmates	79,159	2,041	81,200
Convicted Inmates	26,707	475	27,182
Awaiting Trial	52,452	1,566	54,018

Sources: *Nigerian Correctional Service(5th May, 2025)*

Table 2: *Percentage Breakdown of Inmate*

Category	Percentage
Convicted Inmates	33%
Awaiting Trial	67%
Male Inmates	97%
Female Inmates	3%

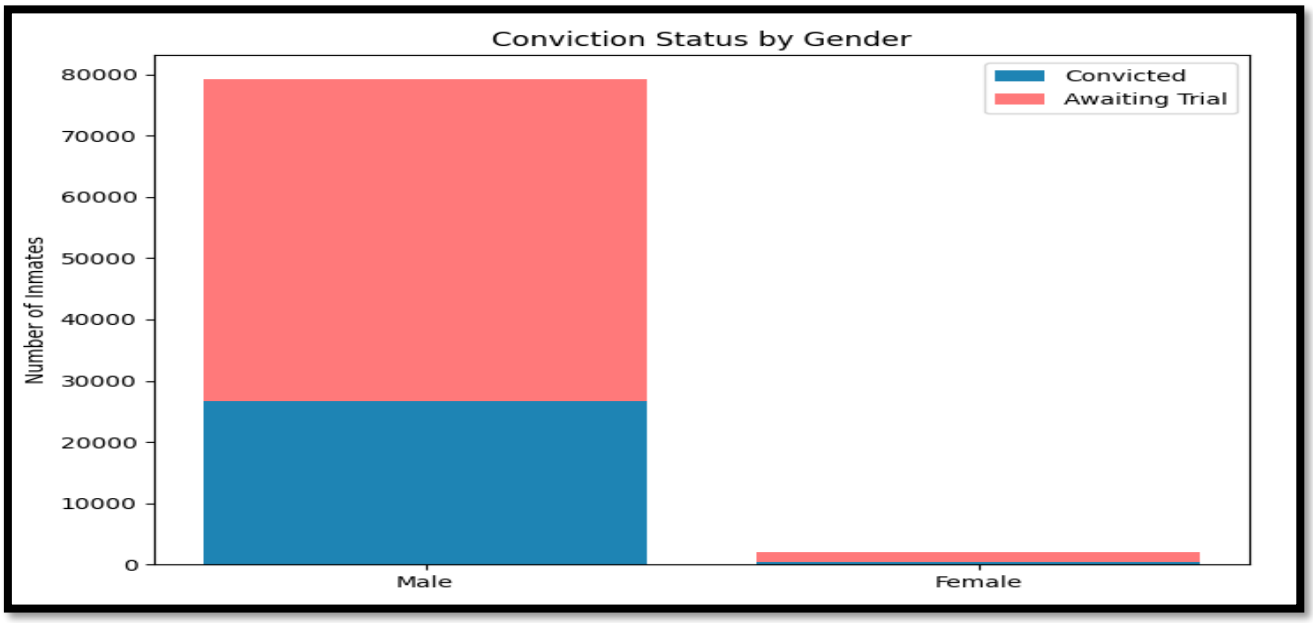


Fig 1: *Conviction Status by Gender*

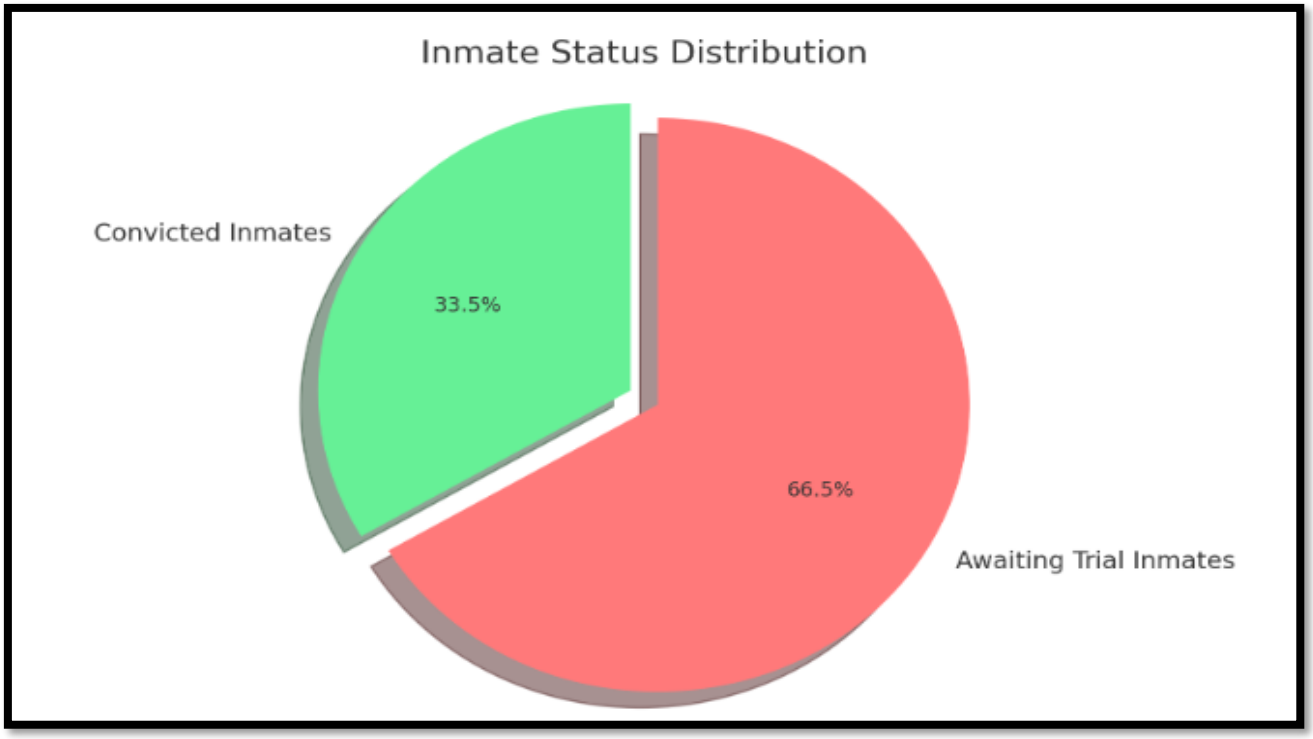


Fig. 2: ***Inmate Status Distribution***

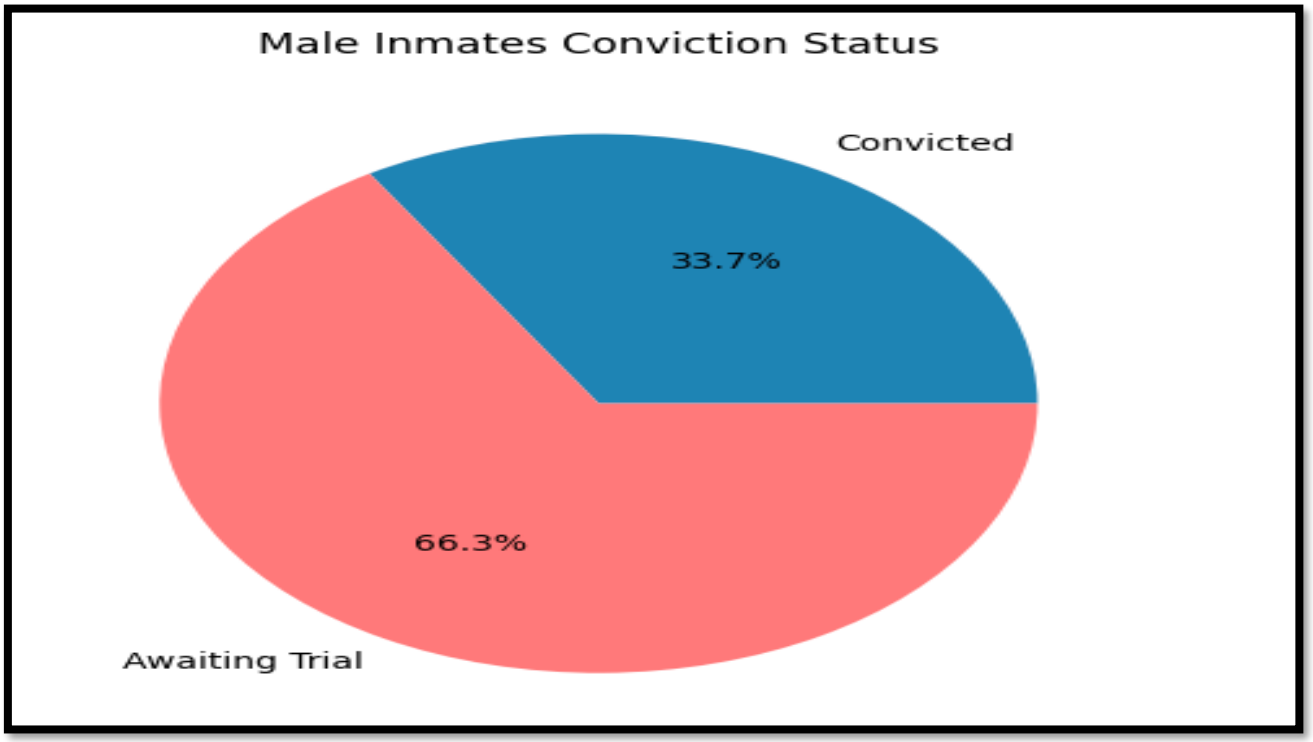


Fig.3: *Male Inmate Conviction Status*

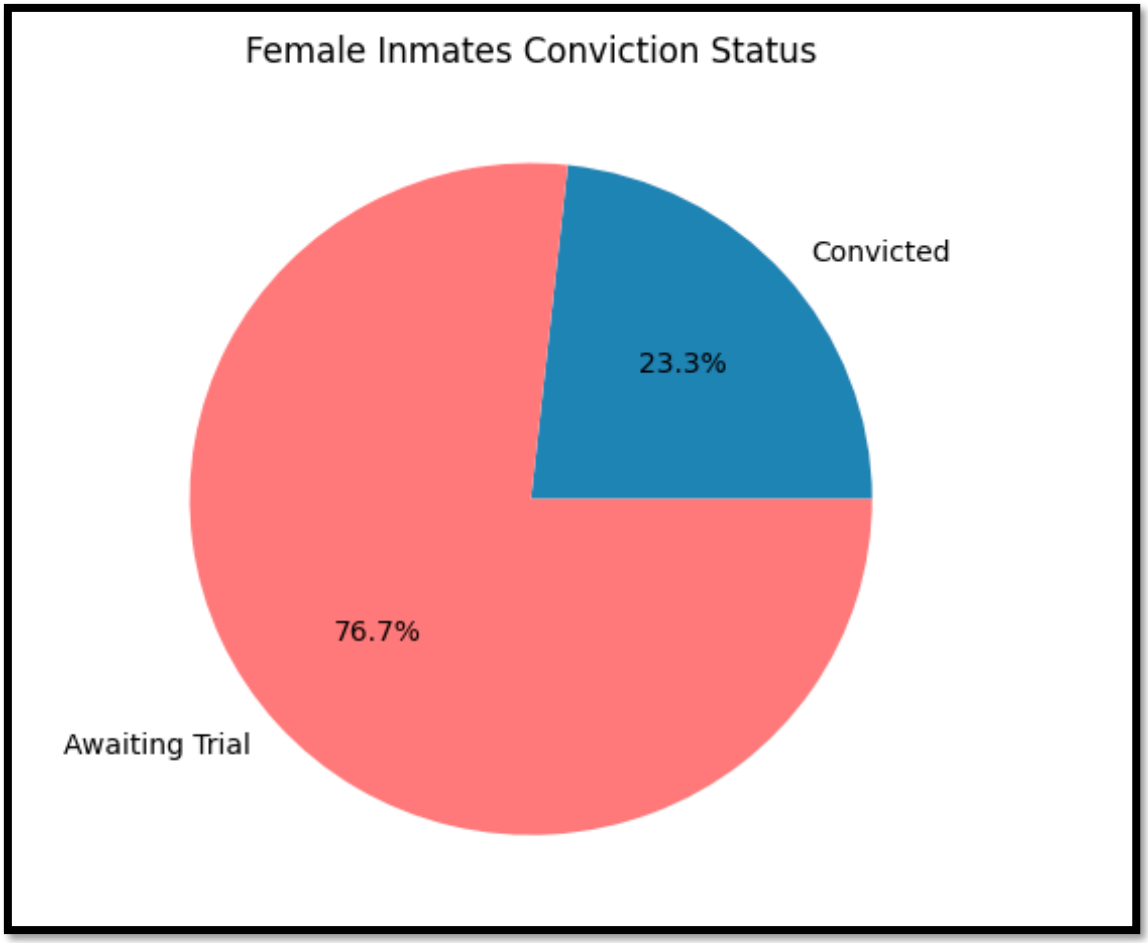


Fig. 4: *Female Inmate Conviction Status*

Chi-Square Goodness-of-Fit Test

Examine gender disparities in Nigeria's inmate population to determine if the observed distribution aligns with the general population or reflects systemic biases.

Hypothesis

H_{01}: The gender distribution of inmates does not significantly differ from the general population distribution in Nigeria.

H_{11}: The gender distribution of inmates significantly differs from the general population distribution.

Category	Observed (O)	Expected (E)	Residual (O - E)	Chi-Square Contribution
Male	79,159	40,681.2	38,477.8	36,400
Female	2,041	40,518.8	-38,477.8	36,550
Total	**81,200**	**81,200**	—	**72,950**

Test Summary

Statistic	Value
Chi-Square (χ2)	72,950
Degrees of Freedom (df)	1
Critical Value (α = 0.05)	3.841
p-value	< 0.00

Conclusion

The computed chi-square (χ^2) statistic of 72,950 is substantially greater than the critical threshold value of 3.841. Consequently, we reject the null hypothesis (H_{01}) and conclude that there is a statistically significant difference between the gender distribution of inmates and that of the general population.

Chi-Square Test of Independence: Gender and Conviction Status

To analyze the association between gender and conviction status (convicted vs. awaiting trial) in Nigeria's inmate population, we proceed as follow:

Hypothesis

H_{02}: Conviction status (convicted vs. awaiting trial) is independent of gender among inmates.

H_{12}: Conviction status is associated with gender among inmates.

Contingency Table with Observed (O) and Expected (E) Frequencies

Gender	Convicted	Awaiting Trial	Total
Male	26,707 **(O)** 26,547 **(E)**	52,452 **(O)** 52,612 **(E)**	**79,159**
Female	475 **(O)** 635 **(E)**	1,566 **(O)** 1,406 **(E)**	**2,041**
Total	**27,182**	**54,018**	**81,200**

Chi-Square Table

Statistic	Value
Chi-Square (χ2)	62.4
Degrees of Freedom (df)	1
p-value	< 0.001
Effect Size (Cramer's V)	0.028

Conclusion

The Chi-Square Test of Independence revealed a statistically significant association between gender and conviction status ($\chi 2 = 62.4, p < .001$). We reject the null hypothesis (H_0) and conclude that conviction status is not independent of gender. Cramer's V=0.028 indicates a small practical effect, suggesting that gender explains only a minimal proportion of variance in conviction status.

Proportion of Convicted Inmates

To assess whether the proportion of convicted inmates (33%) in Nigeria's correctional system (2025) deviates significantly from a historical benchmark (35%) we proceed as follow:

Hypothesis

H_{03}: $P = P_0 = 0.35$ (The proportion of convicted inmates is equal to the hypothesized benchmark)

H_{13}: $P \neq 0.35$ (The proportion of convicted inmates differs from the hypothesized benchmark)

$$p = \frac{Convicted\ Inmates}{Total\ Inmates} = \frac{27{,}182}{81{,}200} = 0.33$$

$$S.E = \sqrt{\frac{P_O(1 - P_O)}{n}} = \sqrt{\frac{0.35 \times 0.65}{81{,}200}} = 0.0016$$

$$Z = \frac{p - P_O}{SE} = \frac{0.33 - 0.35}{0.0016} = -12.5$$

$$For\ \boldsymbol{\alpha = 0.05}\ (two - tailed), critical\ \boldsymbol{z\ =\ \pm 1.96}$$

Test Results

Statistic	Value
Sample Proportion (p)	0.33
Benchmark ($p0$)	0.35
Standard Error (SE)	0.0016
Z-Score	-12.5
p-value	< 0.001

Conclusion

The z-score $(z = -12.5)$ exceeds the critical value (± 1.96) at $\alpha = 0.05$, with a corresponding p-value < 0.001. This provides strong evidence to reject H_0, indicating that the proportion of convicted inmates (33%) is statistically lower than the historical benchmark (35%).

DISCUSSION

The Chi-Square Goodness-of-Fit Test revealed a profound and statistically significant gender imbalance within Nigeria's correctional facilities. Males accounted for an overwhelming 97% of the inmate population, a stark contrast to the nearly even gender split in the general population (50.1% male, 49.9% female), as evidenced by the exceptionally high chi-square statistic (χ^2 = 72,950, p < 0.001). This pronounced disparity mirrors global incarceration patterns, where men are disproportionately represented due to a confluence of gendered policing practices, socioeconomic vulnerabilities, and differential treatment within the criminal justice system (UNODC, 2023; Acker, 2006). In the Nigerian context, these dynamics are intensified by systemic factors such as the aggressive policing of crimes typically committed by men—such as armed robbery and political violence—as well as societal norms that criminalize survival strategies disproportionately employed by impoverished men (Elechi, 2020). Furthermore, the near-exclusion of women from correctional institutions, where they constitute only 3% of the inmate population, is consistent with trends across sub-Saharan Africa. In these settings, women's incarceration

is often linked to non-violent, survival-related offenses, exacerbated by limited access to legal representation and support structures (Alemika, 2018).

Expanding on the relationship between gender and legal outcomes, the Chi-Square Test of Independence further confirmed a statistically significant association between gender and conviction status ($\chi^2 = 62.4$, $p < 0.001$), although the observed effect size, as indicated by Cramer's ($V = 0.028$), was small. Analysis revealed that 33.7% of male inmates had been convicted compared to only 23.3% of female inmates. This disparity is indicative of systemic biases that permeate judicial processes, where male cases may be prioritized, sentences for men are often harsher, and entrenched cultural stereotypes depict women as less culpable or less threatening (Steffensmeier *et al.*, 1998). Conversely, the fact that a larger proportion of women (76.7%) remained in pre-trial detention compared to their male counterparts (66.3%) reflects deep-rooted barriers such as limited access to bail, insufficient legal aid, and the broader societal neglect of female detainees—issues that have been extensively documented by Nigeria's National Human Rights Commission (2024).

In examining broader trends in conviction rates, the One-Sample Proportion Test revealed that the proportion of convicted inmates (33%) is statistically lower than the established historical benchmark of 35% ($z = -12.5$, $p < 0.001$). This decline aligns with patterns observed across numerous Global South countries, where judicial inefficiencies and backlogs have led to escalating pre-trial detention crises (World Prison Brief, 2023). Within Nigeria, the declining conviction rate resonates with findings by the CLEEN Foundation (2022), which attributed these patterns to chronic under-resourcing of the judiciary, widespread prosecutorial inefficiencies, and systemic corruption. Although the 2-percentage-point difference between observed and expected conviction rates might appear modest, it translates into approximately 1,624 fewer convictions than anticipated. This shortfall underscores the magnitude of systemic delays that compromise timely justice delivery, exacerbate facility overcrowding, and perpetuate violations of fundamental human rights, as extensively reported in human rights advocacy literature (Amnesty International, 2021).

CONCLUSION

The findings of this study reveal deep-seated systemic inequities within Nigeria's correctional system, characterized by severe gender disparities and chronic judicial

inefficiencies. The overwhelming overrepresentation of men (97% of inmates) compared to the national gender balance reflects entrenched biases in law enforcement, prosecution, and societal norms, while the high proportion of pre-trial detainees (67%) underscores persistent delays that violate constitutional rights. Although men experience higher conviction rates, women suffer disproportionately from prolonged pre-trial detention, highlighting complex gendered biases within judicial processes. Additionally, the slight decline in the proportion of convicted inmates compared to historical benchmarks signals worsening judicial performance, fueled by under-resourced courts and systemic corruption. Together, these patterns demand urgent institutional reforms, including the digitization of court systems and expansion of alternative sentencing, to address Nigeria's growing correctional and human rights crises.

Recommendation

Based on the findings, this study recommends several targeted interventions to address systemic inefficiencies in Nigeria's correctional system. Courts should receive prioritized staffing and funding during periods of high case intake, with contingency plans like temporary judicial task forces and expanded legal aid to reduce trial delays. Nationwide audits are needed to uncover and correct gender biases in policing, sentencing, and detention practices, supported by public awareness campaigns. A unified digital system for inmate records should be developed to enhance data accuracy and transparency, alongside the digitization of court records for real-time case tracking. Collaborative research with universities should investigate the drivers of low conviction rates and prolonged pre-trial detention. Finally, mobile courts should be established in underserved areas, and alternative sentencing models and legal aid clinics—especially for women—should be expanded to alleviate prison overcrowding and ensure fairer justice delivery.

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