

The Evolving Ecology of Tertiary Education and Future of Polytechnics in Nigeria

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Abstract

This advocacy paper examines the future of polytechnics within the evolving ecology of tertiary education in Nigeria. Despite the rapid increase in the number of candidates seeking tertiary education, enrollment into polytechnics has continued to decline in recent years. This decline is largely driven by a constellation of factors, particularly the institutionalized dichotomy in Nigeria's public service between holders of university degrees and polytechnic qualifications. This trend raises serious concerns about the sustainability of polytechnic education in the country, as many prospective students prefer to forgo admission rather than enroll in polytechnics. The study relied on data obtained from secondary sources, complemented by the researchers' observations, and analyses these using trend analysis. The findings reveal that several factors pose existential threats to polytechnics in Nigeria, including prevailing notions regarding the categorisation of tertiary institutions, negative societal perceptions of polytechnics, the Bachelor's Degree–Higher National Diploma (BSc–HND) dichotomy, the proliferation of universities, and the migration of academic staff from polytechnics to universities. Collectively, these factors significantly shape the perceptions and choices of parents, students, and academic staff within Nigeria's higher education system. The paper recommends, amongst other things, policy reforms and actionable innovations that will strengthen the polytechnic sector and make it attractive to admission seekers, including the abolition of the BSc–HND dichotomy and the elevation of qualified polytechnics to polytechnic-university status.

Keywords: Tertiary education, BSc–HND dichotomy, ecology of education, education policy, polytechnics in Nigeria

Introduction

As the society evolves, all its components respond to continuous change. Globally, educational institutions have responded, and continue to respond to transformation in both normal times

and periods of uncertainty (United Nations Educational, Scientific and Cultural Organization (UNESCO), 2022). As globalization, technological advancement, and other forces of change (Rocha, Kamphambale, MacMahon, Coetzer & Morales, 2023) reshape societies and labour markets, tertiary educational institutions, being the highest exit point into the labour market, and the graduates they produce are compelled to re-strategise in order to adapt to these dynamics (Organisation for Economic Co-operation and Development (OECD), 1998; UNESCO, 2025).

Countries regarded as highly educated (Blain, n.d), as well as others, are grappling with the evolving environment of tertiary education through several strategies. These include the reinvention of learning dispositions, increased funding and investment in education, the integration of digital technologies, stakeholders' engagement, especially students and parents/guardians, promotion of industry relevant knowledge, curriculum reform and adaptation, investment in the teaching profession, and enhanced recognition, welfare, career progression, and professional development of teachers (Sharma, 2025).

While the structure of education systems across the world appear to be similar, comprising early childhood education, primary education (typically a minimum of six years), secondary education in varied forms, and tertiary education with contextual nuances; the ways in which institutions respond to the evolving ecology of tertiary education differ according to national systems and environmental peculiarities (Blain, n.d; UNESCO, 2024). Notwithstanding these variations, two trends are common across countries: (i) increasing demand for tertiary education, and (ii) massification of tertiary education (OECD, 2018; Valavanidis, 2022).

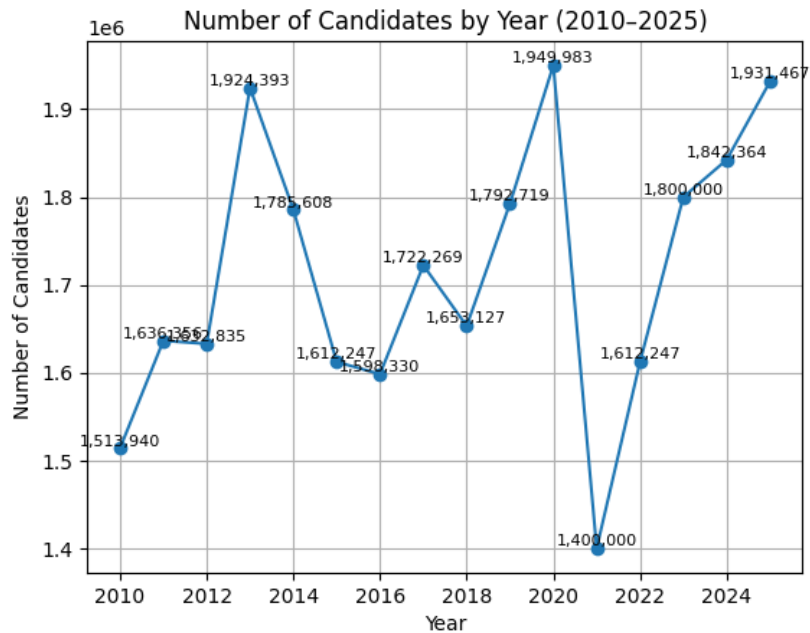
Nigeria's experience presents a unique scenario: (i) Available statistics indicate a fluctuating but overall increasing number of candidates registering annually for the Joint Admissions and Matriculation Board (JAMB) examination in pursuit of tertiary education (see table 1); (ii) at the same time, there has been a proliferation of tertiary institutions; (iii) despite this, a significant number of candidates are unable to secure admission each year annually; and (iv) paradoxically, many institutions are also unable to fill their admission quotas in line with their carry capacities (Tolu-Kolawole, 2022). Within this context, some institutions are experiencing declining enrollment. For instance, during the 2024/2025 admissions cycle, it was reported that 20 institutions (comprising 4 universities, 8 polytechnics, and 8 colleges of education) enrolled fewer than one thousand students each (Tolu-Kolawole, 2025). This development highlights systemic gaps with implications for the governments, tertiary institutions, students, parents/guardians, and other stakeholders.

Table 1: Number of candidates who registered for the Unified Tertiary Matriculation Examination (UTME), 2010–2025

Year	2010	2011	2012	2013	2014	2015	2016	2017
Number of candidates	1,513,940	1,636,356	1,632,835	1,924,393	1,785,608	1,612,247	1,598,330	1,722,269
Year	2018	2019	2020	2021	2022	2023	2024	2025
Number of candidates	1,653,127	1,792,719	1,949,983	1,400,000	1,612,247	1,800,000	1,842,364	1,931,467

Adapted from Africa Check (2017); Omotere (2025); Tolu-Kolawole et al (2025); Tolu-Kolawole (2025), and represented by the authors.

Figure 1: Graphical representation of UTME candidates, 2010-2025



Existing and extant studies have largely concentrated on the BSc-HND dichotomy, particularly its implications for employability and post-graduation outcomes for polytechnic graduates. While this body of work is important, it has paid limited attention to a more fundamental and emerging concern, the persistent decline in enrolment in polytechnics, despite a continuous increase in the number of candidates seeking tertiary education annually. This disconnects between rising demands for tertiary education and declining uptake of polytechnic pathways represents a critical but underexplored problem. Left unaddressed, it poses significant implications for the sustainability, relevance, and future role of polytechnic education within the broader higher education system.

Addressing this gap, the present study shifts the analytical focus from outcomes after graduation to patterns of access and participation. It employs trend analysis to examine the direction and trajectory of enrolment in polytechnics over time, with the aim of providing evidence for informed policy intervention. In doing so, the paper advances an advocacy-driven argument for targeted policy reforms to address the marginalisation of polytechnics and to safeguard their relevance in the evolving tertiary education landscape.

In the light of the foregoing, the study interrogates the trends in enrollment into polytechnics in Nigeria from 2017 to recent times; examines patterns of enrollment decline; and identifies and analyses the factors driving this trend. The paper concludes by proposing policy recommendations aimed at repositioning polytechnic education within Nigeria’s changing tertiary education system.

Objectives of the Study

The broad objective of this study is to examine the evolving ecology of tertiary education in Nigeria and propose policy recommendations for repositioning polytechnic education within this context. Specifically, the study aims to:

- i. Analyse trends in enrolment in polytechnics in Nigeria from 2017 to the most recent period for which data are available.
- ii. Examine patterns and trajectories associated with changes in polytechnic enrolment.



- iii. Identify and analyse the factors associated with observed changes in enrolment in polytechnics.
- iv. Assess policy implications and outline evidence-informed options for repositioning polytechnic education within Nigeria's evolving tertiary education system.

Research Questions

Accordingly, the study is guided by the following research questions:

1. What are the trends in enrolment in polytechnics in Nigeria over time?
2. What patterns characterise changes in enrolment across institutions and regions?
3. What factors are associated with observed changes in enrolment?
4. What are the implications of these trends for policy and the future of polytechnic education?

Literature Review

Tertiary education has been conceptualised various ways. One notable approach is the interchangeable use of tertiary education and higher education (Duwiejua, 2015; Right to Education Initiative, 2023). A review of both terms rarely reveals significant distinctions, which explains this practice. Broadly, tertiary education refers to "all types of studies, training or training for research at the post-secondary level, provided by universities or other educational establishments that are approved as institutions of higher education by the competent State authorities" (Tretyakov, 2008). Similarly, it can be defined as a "formal education beyond secondary education, including higher education, vocational education and training, or other specialist post-secondary education or training" (VOCEDPlus, n.d).

Higher education, on the other hand, encompasses "all types of education (academic, professional, technical, artistic, pedagogical, long distance learning, etc.) provided by universities, technological institutes, teacher training colleges, etc., which are normally intended for students having completed a secondary education, and whose educational objective is the acquisition of a title, a grade, certificate, or diploma of higher education" (UNESCO, cited in Right to Education Initiative, 2023).

From these definitions, both concepts share several common features:

- (i) they refer to education pursued after secondary education;
- (ii) they are delivered by approved institutions with varying nomenclatures across contexts;
- (iii) they lead to the award degrees, diplomas, or certificates upon completion of programmes;
- and (iv) they serve as gateways to the labour market and employment.

However, a key distinction lies in the conceptual framing: tertiary education denotes a level within the sequential structure of education (following primary and secondary education), whereas higher education emphasises the nature and purpose of the education provided. In this study, the term tertiary education is adopted in this structural sense.

At the tertiary level, different types of institutions provide specialised training. In Nigeria, these include: universities, polytechnics, monotronics/specialised institutions, colleges of agriculture, colleges of nursing sciences, colleges of health sciences, Innovation Enterprise Institutions (IEIs), Vocational Enterprise Institutions (VEIs); and colleges of education (Aminu, 2025; Oladipo, 2019; National Board for Technical Education (NBTE), 2025). Universities, both conventional and specialised (agriculture, education, medicine, science and technology), regulated by the National Universities Commission (NUC) and are mandated to produce high-

level manpower through teaching, research, and the advancement of knowledge (Opara, 2017; NUC, n.d).

Polytechnics and the other afore-mentioned institutions, broadly classified as Technical Vocational Education and Training [TVET] institutions, are regulated by NBTE. Their mandate is to “produce middle- and high-level manpower in technology, applied sciences, commerce and management” for national development (Federal Polytechnic [Amendment] Act, 2019; NBTE, 2017; NBTE, n.d). Colleges of Education, regulated by the National Commission for Colleges of Education, are responsible for training qualified teachers and preparing individuals for teaching profession (Hali Access Network, 2021; NCCE, 2026).

Access to tertiary education in Nigeria requires candidates to sit for a unified entrance examination (Hali Access Network, 2021; Onwughalu, 2012).. Prior to 2010, two separate matriculation examinations existed: the Universities Matriculation Examination (UME) for universities and degree awarding institutions; and the Monotechnics, Polytechnics, and Colleges of Education Matriculation Examination (MPCE) for institutions that award National Diploma (ND) and National Certificate of Education (NCE). These were merged into the Unified Tertiary Matriculation Examination (UTME) in 2010.

The Joint Admissions and Matriculation Board (JAMB) administers the UTME, while the West African Examinations Council (WAEC), National Examinations Council (NECO), and National Business and Technical Examinations Board (NABTEB) conduct the Senior Secondary School Certificate Examinations (SSCE), which qualify candidates for tertiary education. All the students who have completed the senior secondary school are eligible to participate. However, to be considered for admission tertiary institution, the candidate must possess O' Level result (WAEC, NECO, NABTEB) at credit level for English language and Mathematics (compulsory), and three other relevant subjects making a total of five credits, and also obtained the required cut-off mark in UTME for the institution and the course of his/her choice. Additionally, to the Post-UTME screening, introduced in 2005, constitutes a further requirement for admission (Akinyoola, 2019; Hali Access Network, 2021; Onwughalu, 2012). Changes in the admission process reflect the evolving nature of Nigeria's tertiary education ecology. Bratko and Khoruzha (2020) describe the environment of tertiary education as “a multilevel system of conditions, circumstances, factors and opportunities that provides optimal parameters of the educational activity to an individual in all aspects - target, content, process, result, resource.” This ecology is inherently dynamic, characterised by interactions between internal and external forces. Internal factors include institutional policies, governance structures, and operational practices, while external factors encompass broader societal forces such as globalization, technological advancement, and labour market demands (Atiku & Atiku, 2022).

Given this complexity, the distinction between internal and external stakeholders is often fluid. Internally, staff, students, leadership quality, infrastructure, academic environment, policies, and funding shape institutional outcomes. Externally, actors such as government ministries, regulatory bodies, host communities, industries, professional bodies, and the labour market influence the system (Phiri, Mungule & Phiri, 2024; Kolluru & Uecker, 2024). Notably, students and their parents may function as both internal and external stakeholders, further illustrating the interconnectedness of the system.

Interactions among these actors and stakeholders continue to shape the global tertiary education landscape. One prominent outcome is the increasing demand for and access to tertiary education (Valavanidis, 2022), driven by rising numbers of candidates seeking admission. In response to these pressures, and broader forces such as globalisation, technological change, and evolving labour market needs, institutions have become more competitive and adaptive.

In this study, the ecology of tertiary education is conceptualised as a complex system arising from the interactions among actors, stakeholders, policies, socio-economic forces, regulatory framework, all of which continuously influence one another and necessitate ongoing institutional adaptation.

In Nigeria, however, this ecology presents a number of contradictions that suggest systemic coordination gaps. While the number of candidates seeking admission continues to rise and the number of institutions has expanded, many institutions fail to utilise their full admission capacities. At the same time, a significant proportion of applicants are unable to secure admission (see table 2). Compounding this paradox is the phenomenon of declining enrollment in some institutions, particularly the polytechnics (Tolu-Kolawole, 2025).

Table 2: Utilized and unutilized admission quotas in Nigeria's tertiary institutions (2021)

S/N	Institution Type	Assigned/allotted Quotas	Total allotted Quota	Total Utilized Quota
1.	Federal Universities	259,292	601,775	179,330
	State Universities	221,545		
	Private Universities	120,938		
2.	Federal Polytechnics/Monotechnics	51,663	115,243	35,352
	State Polytechnics/Monotechnics	51,620		
	Private Polytechnics/Monotechnics	11,960		
3.	Innovation Enterprise Institutions		4,870	3,573
4.	Federal Colleges of education	83,020	235,240	187,320
	State Colleges of Education	131,880		
	Private Colleges of Education	20,340		

Adapted from Tolu-Kolawole (2022, June 13). 405,256 admission quotas unutilised, says JAMB, and represented by the authors

These contradictions can be attributed to several interrelated factors, including governments' policy priorities, uneven infrastructure development, perceived institutional quality, societal valuation of academic qualifications, and the influence of global technological and labour market trends. Together, these factors shape the preferences of students and parents in choosing institutions, thereby contributing to the observed enrollment patterns.

The theoretical perspectives discussed in the next section provide further insights into these dynamics and offer a framework for understanding the evolving ecology of tertiary education in Nigeria.

Theoretical Framework

This study adopts a triangulated theoretical approach, drawing on credentialism theory (Weber, 1922/1978, cited in Brown, 2001), field theory (Bourdieu, 1969), human capital theory (Schultz, 1961; Becker, 1962; 1964), and educational ecology theory to explain the evolving ecology of tertiary education and the future of polytechnics in Nigeria.

Credentialism theory emphasises the importance of formal qualifications and their associated implications. It posits that credentials play critical role not only in determining suitability for job placement, but also in shaping relationships with the labour market, achievement, social recognition, and acceptance. This phenomenon is particularly evident in Nigeria, where considerable values is attached to so-called “professional courses” and to institutions perceived to possess the requisite manpower and infrastructure to offer them. Furthermore, the premium placed on universities degrees over polytechnic qualifications has contributed to persistent discrimination against polytechnic graduates (Popoola, 2019; Wheelahan, L., & Moodie, G. (2025). As noted by Oluwatoyin cited in Tolu-Kolawole (2025) “... most candidates and parents prefer the old institutions to the new ones ... a candidate having a choice between the University of Ibadan and one new school ... don’t even care if UI will deny them admission ...”. These dynamics partly explain, on the one hand, the underutilization of admission quotas (as shown in table 2), and on the other hand, the declining enrollment observed particularly in polytechnics.

However, the limitations of credentialism theory in explaining the broader ecology of tertiary education system are addressed by field theory (Bourdieu, 1969). Field theory posits that institutions occupy different positions within a structured social space, shaped by their mandates, resources, and symbolic capital. As highlighted in the literature review, tertiary education encompasses university, colleges, and vocational institutions, each with distinct roles. These institutions compete for government funding and student enrollment (Opara, 2017). Government investment in higher education is often justified by anticipated “social returns” (Crawford, Dearden, Micklewright & Vignoles, 2016). In Nigeria, universities receive a disproportionately larger share of public funding compared to polytechnics and colleges of education (Njoku, 2021). For example, the Tertiary Education Trust Fund (TETFund) Act 2011 allocates 50% of its resources to universities and 25% each to polytechnics and colleges of education (Echono, 2024).

This funding pattern reflects assumptions about higher and quicker “social returns” from universities and contributes to policy and societal biases that elevate their status. Consequently, a hierarchical structure has emerged within the tertiary education system, reinforcing the degree-HND dichotomy. Universities are widely perceived as superior, followed by polytechnics and colleges of education (Njoku, 2021). This hierarchy partly explains enrollment patterns, as students and their parents tend to prefer universities due to their perceived prestige and associated social mobility.

Human capital theory (Schultz, 1961; Becker, 1962; 1964) further complements the explanatory framework by conceptualizing education as an investment with expected future returns. It extends the notion of “social returns” by emphasizing individual gains and productivity earnings. Within this framework, individuals are likely to invest in courses and institutions perceived to yield higher economic returns. This perception significantly influences students’ choices of courses and institutions.

Integrating insights from credentialism, field, and human capital theories, it becomes evident that the high value placed on formal qualifications, their role in labour market outcomes, and societal expectations of success and recognition interact with the hierarchical structure of tertiary institutions in Nigeria. Government funding priorities, particularly the preference for universities, further reinforce these dynamics. Consequently, candidates and their parents

make informed (and sometimes strategic) decisions regarding programme selection and institutional choice, often favouring universities over polytechnics (Matache, 2023; Leoni, 2025). This is because “access to university is synonymous with opportunity, mobility, and success” in the country (Lawal, 2025). In some cases, candidates who failed to secure admission into their preferred courses, reject alternative offers within the same or different university (Tolu-Kolawole, Oyedeyi, Obianeri, Edema & Okere, 2025).

Educational ecology theory (Waller, 1932; Ashby, 1966; Cremin, 1976) provides a holistic framework for understanding the continuous evolution of the tertiary education system. It conceptualises the tertiary education landscape as an ecosystem shaped by dynamic interactions among actors, stakeholders, and change agents within both internal and external environments. Key actors include institutional leadership, staff, students, and governing bodies, while external stakeholders encompass government ministries, regulatory agencies, host communities, industries, professional bodies, and the labour market. Broader forces such as globalisation, technological advancement, and societal expectations further influence this ecosystem (Phiri, Mungule, & Phiri, 2024; Kolluru & Uecker, 2024).

Within this ecological framework, tertiary institutions continuously adapt to shifting conditions, competing for funding, students, and relevance. These interactions explain emerging trends such as the demand for new programmes, increased access to higher education, the growing preference for universities, evolving funding mechanisms (e.g., the Nigerian Education Loan Fund and Students’ Work Aid Programme), the massification of institutions, and the digitalisation of teaching and learning (Njoku, 2021; Onwughalu, 2025).

In Nigeria, educational ecology theory is particularly useful in explaining the declining enrollment in polytechnics. Contributing factors include the proliferation of universities (see table 3), policy frameworks that favour universities and reinforce institutional hierarchies, labour market preferences, and institutional affiliations between polytechnics and universities, as well as between colleges of education and other institutions (National Universities Commission, n.d.; Gu, 2017; Nsien, Umoh, & Williams, 2024).

Table 3: Number, types, and ownership of tertiary institution in Nigeria

S/N	Institution Type	Federal	State	Private	Total
1.	University	74	67	168	309
2.	Polytechnic	41	59	107	207
3.	Monotechnic	39	86	166	291
4.	College of Education	27	49	165	241

Adapted from National Universities Commission. (n.d). Nigerian universities; National Board for Technical Education. (n.d). All institutions; National Commission for Colleges of Education. (2026). Comprehensive list of accredited colleges, and represented by the authors

Methodology

Research Design

This study adopts a quantitative longitudinal research design based on secondary data, complemented by elements of multiple-case analysis to enable institutional-level insights. The longitudinal design facilitates the examination of enrollment trends in polytechnics over time, while the case-based component provides contextual depth across selected institutions.

Data Sources

The study relies exclusively on secondary data obtained from key national education and statistical agencies, including the Joint Admissions and Matriculation Board (JAMB), the National Bureau of Statistics (NBS), the Federal Ministry of Education's Tertiary Information System (TIS), the National Universities Commission (NUC), the National Board for Technical Education (NBTE), and the National Commission for Colleges of Education (NCCE). These sources provide longitudinal enrollment data and system-level indicators used to examine patterns of institutional demand and the evolving structure of Nigeria's tertiary education landscape.

Sampling and Case Selection

To ensure national representation, fifteen polytechnics were purposively selected across the six geopolitical zones in Nigeria. The selection was guided by a triangulation of institutional rankings, including the top 10 polytechnics (2025) published by SabiHow, the top 53 polytechnics (Webometrics ranking, 2021), and the top 20 polytechnics reported in earlier studies. Where gaps existed in the 2025 ranking across geopolitical zones, institutions were drawn from the 2021 and 2018 rankings to ensure balanced regional coverage and analytical inclusiveness (see Table 4).

Polytechnics located in states affected by persistent violent conflict were excluded to minimise distortion in enrolment patterns arising from security-related factors that may independently influence institutional choice. In addition, the Federal Polytechnic, Oko, Anambra State, was included to address data gaps resulting from the unavailability of records for the Institute of Management and Technology (IMT), Enugu, in the Tertiary Information System.

Analytical Framework

Data were analysed using a combination of trend analysis, descriptive and comparative analysis, content and documentary analysis, and interpretive policy analysis. Trend analysis was employed to address Research Question 1 by identifying the direction and magnitude of enrolment changes over time. Descriptive and comparative analysis (tables and graphs) were used to address Research Question 2 by examining patterns across institutions and regions. Content and documentary analyses were used to address Research Question 3 by identifying policy, institutional, and systemic factors associated with observed trends. Interpretive policy analysis was used to address Research Question 4 by linking empirical patterns to broader implications for the tertiary education system. This integrative approach enables both pattern identification and explanatory insight.

Limitations of the Study

This study is subject to several limitations. First, reliance on secondary data constrains the analysis to the availability, consistency, and accuracy of existing datasets, which may vary across sources and years. Second, the exclusion of polytechnics in conflict-affected areas, while methodologically necessary, limits the generalisability of findings to those contexts. Third, the purposive selection of institutions, although designed to ensure representativeness, may introduce selection bias and may not fully capture the diversity of all polytechnics in Nigeria. Finally, the absence of primary data restricts the study's ability to directly capture the perceptions and motivations of prospective students, which could further enrich the interpretation of enrolment trends.

Table 4: Select Polytechnics in Nigeria and their Geopolitical Zones

S/N	Polytechnics	Geopolitical Zones
1.	Yaba College of Technology, Lagos	South-West
2.	Federal Polytechnic, Ilaro	
3.	The Polytechnic, Ibadan	
4.	Lagos State Polytechnic, Ikorodu (now, Lagos State University of Science & Technology)	
5.	Rufus Giwa Polytechnic, Owo,	South-South
6.	Auchi Polytechnic, Auchi	
7.	Federal Polytechnic, Nekede, Imo State	South-East
8.	Institute of Management and Technology, Enugu, Enugu State	
9.	Federal Polytechnic, Oko, Anambra State	
10.	Kaduna Polytechnic, Kaduna State	North-West
11.	Hassan Usman Katsina Polytechnic, Katsina, Katsina State	
12.	Federal Polytechnic, Bida, Niger State	North-Central
13.	Federal Polytechnic, Offa, Kwara State	
14.	Federal Polytechnic, Bauchi, Bauchi State	North-East
15.	Federal Polytechnic, Mubi, Adamawa State	

Source: Adapted from Eke (2026); Ulearnjo (2018) & Nwachukwu (2021), and compiled by the researchers.

Trends in Enrollment into Polytechnics and Patterns of Decline

This section addresses the first and second specific objectives of the study. It examines trends in enrollment into polytechnics in Nigeria between 2017 and 2022, as well as the emerging patterns of enrollment decline within the subsector.

Across the three ranking sources used to guide the selection of the fifteen polytechnics, Yaba College of Technology, Lagos consistently ranked first. Federal Polytechnic, Ilaro; Auchi Polytechnic; Federal Polytechnic, Nekede; Kaduna Polytechnic; The Polytechnic, Ibadan; and Lagos State Polytechnic, Ikorodu (now, Lagos State University of Science and Technology) featured prominently among the top-ranked institutions across 2025, 2021 and 2018, with minor variations. For instance, Kaduna Polytechnic and The Polytechnic, Ibadan were not among the top 10 in 2021. Rufus Giwa Polytechnic, Owo; Federal Polytechnic, Bida; and the Institute of Management and Technology (IMT), Enugu, although ranked among the top 10 in 2025, occupied lower positions in earlier rankings. Similarly, Federal Polytechnic, Offa, and Federal Polytechnic, Bauchi demonstrated fluctuating positions across the ranking years, while Hassan Usman Kastina Polytechnic and Federal Polytechnic, Mubi ranked relatively lower. Federal Polytechnic, Oko maintained a fairly stable mid-tier ranking across the years considered.

The analyses of enrollment trends into polytechnics from 2017 to 2022 is approached from two perspectives: (i) admission by institution type (table 5), and (ii) admission by courses (table 6). Table 5 provides comparative overview of admissions across different categories of tertiary institutions in Nigeria.

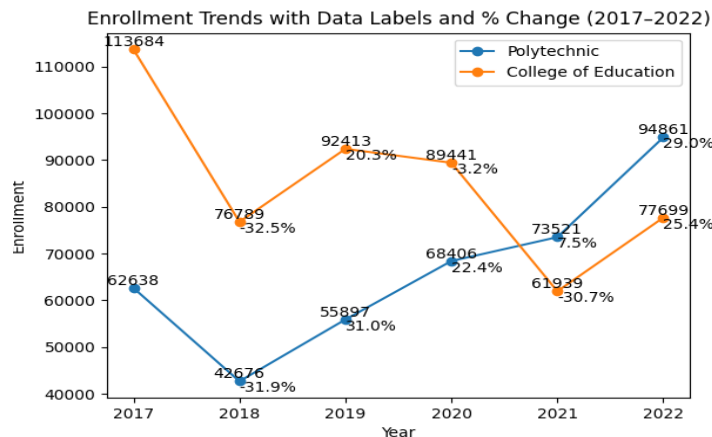
Table 5: Admissions by Institution Type

Institution	Year						Total
	2017	2018	2019	2020	2021	2022	
University	432,984	360,189	387,324	437,562	344,982	457,833	2,420,874
Polytechnic	62,638	42,676	55,897	68,406	73,521	94,861	397,999
Monotechnic	7,257	5,017	6,190	7,749	6,819	10,390	43,422
College of Education	113,684	76,789	92,413	89,441	61,939	77,699	511,965
Innovation Enterprise Institute	1,178	559	1,139	1,850	1,264	1,592	7,582
Seminary/Theological College	537	1,183	615	553	524	613	4,025
School of Health	974	814	520	456	482	908	4,154

Adapted from the Federal Ministry of Education. (n.d). Tertiary Information System, and compiled by the researchers

The data show that, for polytechnics, enrollment experienced initial fluctuations between 2017 and 2019, followed by a steady increase from 2020 to 2022. Despite this improvement, a comparative analysis with universities and colleges of education reveals a pronounced enrollment gap. Although these institutions have distinct mandates, government policies and systemic biases have inadvertently created a hierarchy in terms of institutional prestige, perceived value of qualifications, and expected returns on educational investment. Within this hierarchy, polytechnics are generally perceived to rank above colleges of education. However, contrary to this expectation, the data indicate that colleges of education attracted higher enrollment than polytechnics over the study period (table 5 and figure 2).

Figure 2: Enrollments trends in Polytechnics and Colleges of Education in Nigeria (2017-2022)



Further disaggregation of polytechnic enrollment data by individual institutions (table 6) reveals patterns of fluctuations and modest growth in the later years. However, when compared with university enrollment, a significant disparity becomes evident. In some cases, the cumulative enrollment of certain polytechnics over the six-year period is comparable to, or even lower than, the annual enrollment figures of individual universities. For example, the University of Calabar, Cross River State recorded 9,294 admissions in 2017 alone, while Ladoke



Akintola University of Technology, Ogbomosho, Oyo State, admitted 8,912 students in 2022, figures that exceed the total enrollment (2017-2022) of some polytechnics such as Rufus Giwa Polytechnic, Owo, Ondo State, Hassan Usman Katsina Polytechnic, Katsina, Katsina State, and Federal Polytechnic, Mubi, Adamawa State (Federal Ministry of Education, n.d).

Table 6: Admissions by Individual Polytechnic

Institution	Year						Total
	2017	2018	2019	2020	2021	2022	
Yaba College of Technology, Lagos	3,625	3,792	3,833	3,138	3,989	4,712	23,089
Federal Polytechnic, Ilaro	1,830	1,761	2,314	2,420	2,992	3,645	14,962
The Polytechnic, Ibadan	2,289	2,474	2,791	2,551	1,238	2,302	13,645
*Lagos State Polytechnic, Ikorodu (now, Lagos State University of Science & Technology)	NA	NA	NA	NA	NA	NA	NA
Rufus Giwa Polytechnic, Owo,	672	176	384	733	1,597	1,610	5,173
Auchi Polytechnic, Auchi	924	741	649	1,532	2,310	3,543	9,699
Federal Polytechnic, Nekede, Imo State	2,144	250	871	981	2,564	4,198	11,008
*Institute of Management and Technology, Enugu, Enugu State	NA	NA	NA	NA	NA	NA	NA
Federal Polytechnic, Oko, Anambra State	1,446	589	980	2,074	2,648	2,587	10,325
Kaduna Polytechnic, Kaduna State	5,501	3,821	6,968	7,327	7,137	9,254	40,008
Hassan Usman Katsina Polytechnic, Katsina, Katsina State	330	97	375	1,529	1,166	1,751	5,248
Federal Polytechnic, Bida, Niger State	1,671	741	745	1,456	1,886	2,481	8,980
Federal Polytechnic, Offa, Kwara State	1,943	2,079	2,609	2,193	3,282	3,910	16,016
Federal Polytechnic, Bauchi, Bauchi State	2,289	1,550	908	2,519	2,284	2,588	12,411
Federal Polytechnic, Mubi, Adamawa State	279	13	39	156	1,285	1,700	3,472

Adapted from the Federal Ministry of Education. (n.d). Tertiary Information System, and represented by the researchers *Data for these institutions were not available (NA).

Table 6 also highlights regional patterns of enrollment decline across the six geopolitical zones. The decline is evident nationwide but varies in intensity. In descending order, the trend is most pronounced in the South-South, followed by the South-East, North-West, North-East, North-Central, and least in the South-West. Kaduna Polytechnic stands out as the only institution with enrollment exceeding more than 5,000 students in five out the six years under review. This performance may be attributed its longstanding reputation, wide range of programmes, multi-campus structure, and relatively high carrying capacity (Kaduna Polytechnic, 2025). Yaba College of Technology follows closely, although its peak enrollment exceeded 4,000 students only in 2022. Other institutions such as Federal Polytechnic, Offa;

Auchi Polytechnic, and Federal Polytechnic, Ilaro, recorded enrollments above in 2022, while the remaining institutions enrolled fewer students.

Recent evidence further reinforces the pattern of decline. In the 2024/2025 academic session, several polytechnics recorded enrollments below 1,000 students, including a number of relatively new federal polytechnics (see table 7) (Alausa cited Tolu-Kolawole, 2025). This suggests that the challenge of low enrollment is not limited to older institutions but also affects newly established ones.

Table 7: Polytechnics that enrolled less than 1,000 students in 2024/2025 session

S/N	Polytechnics	Number of Students Enrolled	Year Established	Geopolitical Zones
1.	Federal Polytechnic, Wannune, Benue State	956	2020	North-Central
2.	Federal Polytechnic, Kabo, Kano State	713	2022	North-West
3.	Federal Polytechnic of Oil and Gas, Bonny, Rivers State	704	2018	South-South
4.	Federal Polytechnic, Ukana, Akwa Ibom State	455	2014	South-South
5.	Federal Polytechnic, Mongunu, Borno State	350	2021	North-East
6.	Federal Polytechnic, Ngodo-Isuochi,	118	2022	South-East
7.	Federal Polytechnic, N'yak, Shendam, Plateau State	89	2022	North-Central
8.	Federal Polytechnic, Ohodo, Enugu State	65	2021	South-East

Adapted from Tolu-Kolawole (2025), and represented by the researchers

Another important dimension of enrollment decline is observed across academic programmes. Table 8 presents the ten most subscribed courses in polytechnics between 2017 and 2022, spanning Commerce and Management, Engineering, Technology, and Applied Sciences. While these courses consistently appeared among the top ten, their relative positions fluctuated over time. Science Laboratory Technology emerged as the most enrolled course in most of the years after 2017, while Business Administration and Management, Computer Science, and Mass Communication remained consistently prominent.

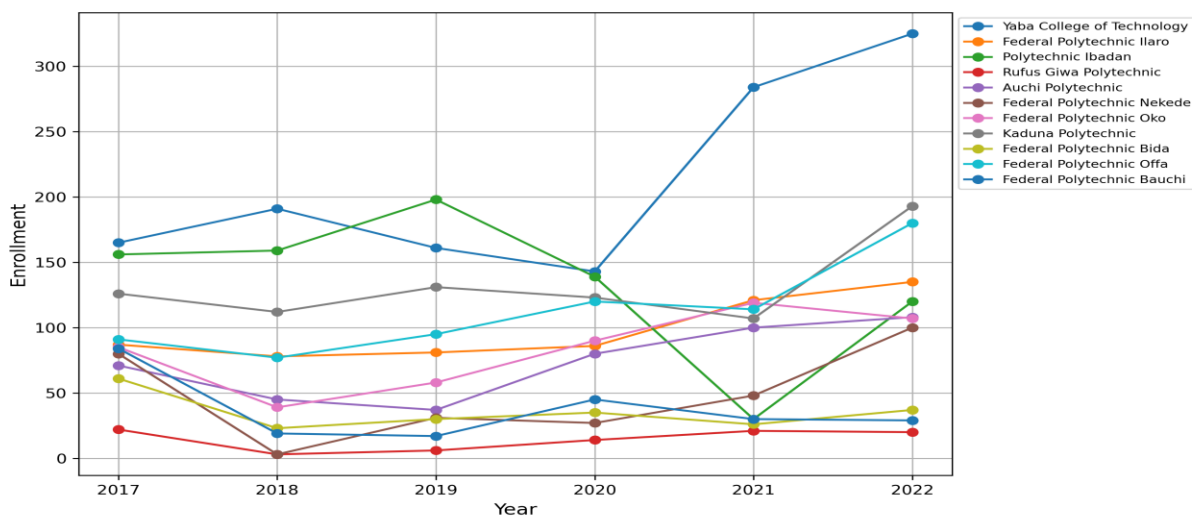
Table 8: Admissions by Courses (2017-2022)

Institution	Year						Total
	2017	2018	2019	2020	2021	2022	
Science Laboratory Technology	5,927	5,078	7,031	8,614	10,425	11,237	48,312
Business Administration and Management	6,203	4,313	4,976	6,523	7,051	8,678	37,744
Computer Science	4,275	3,071	4,128	5,423	6,644	7,794	31,335
Mass Communication	3,810	2,962	4,232	5,312	6,649	7,789	30,754
Accountancy	5,428	3,694	4,360	4,746	4,839	6,176	29,194
Public Administration	3,919	2,356	3,260	4,697	5,121	6,187	25,589
Electrical/Electronics Engineering	2,902	2,025	2,846	3,209	3,349	4,338	18,589
Civil Engineering	2,328	1,732	2,167	2,486	2,822	3,631	15,166
Banking and Finance	2,626	1,625	1,870	1,938	1,919	2,570	12,548
Office Technology and Management	2,622	1,539	1,868	1,988	1,809	2,431	12,257

Adapted from the Federal Ministry of Education. (n.d). Tertiary Information System, and represented by the researchers

However, disaggregated analysis indicates that enrollment decline is more pronounced in Commerce and Management-related courses. For example, Banking and Finance consistently recorded the lowest enrollment figures, even in institutions with relatively high overall admissions (see figure 3). This is followed by Office Technology and Management and Public Administration. Within Engineering and Technology, Civil Engineering Technology shows relatively lower enrollment trends. Notably, even traditionally strong programmes such as Science Laboratory Technology exhibit signs of declining enrollment in several institutions, with the exception of a few high-performing polytechnics such as Kaduna Polytechnic. Overall, the analysis reveals a persistent decline in enrollment into polytechnics across the study period, albeit with minor fluctuations in specific institutions. While a few polytechnics demonstrated relative stability or marginal growth, the general pattern points to a systemic shift in student preference away from polytechnic education. This trend underscores the growing dominance of university education within Nigeria’s tertiary education landscape, driven by perceived differences in prestige, career prospects, and policy inconsistencies affecting the polytechnic sector.

Figure 3: Trends in Enrollment in Banking and Finance across Select Polytechnics (2017-2022)



Factors Driving Declining Enrollment in Polytechnics

The factors discussed in this section are interrelated and collectively drive the decline in enrollment in polytechnics in Nigeria. They include the following:

- a) **Government prioritisation of universities in policy, funding, and infrastructure:** The study identifies government bias toward universities as a primary driver of declining enrollment in polytechnics. Universities consistently receive greater attention in policy formulation, funding allocation, and infrastructural development than polytechnics and colleges of



education. This disparity is particularly evident in funding and infrastructure provision (Echono, 2024; Njoku, 2021). Such preferential treatment is visible to the public and significantly shapes institutional preferences among prospective students and their parents.

- b) ***Hierarchical categorisation of tertiary institutions:*** Closely related to the above is the implicit hierarchical structuring of tertiary institutions in Nigeria. This hierarchy can be traced to policy biases that favour universities and have fostered what Njoku (2021:5) describes as “unjustified superiority complexes over the polytechnics.” In a society where social status, recognition, and prestige are often tied to educational attainment, universities are perceived as occupying a higher status. Consequently, students and their families, seeking these associated benefits tend to prioritise universities over polytechnics.
- c) ***Negative societal perceptions and stigmatization of polytechnics:*** The hierarchical categorisation of institutions has reinforcing “long-standing societal prejudices that create the wrong impression that universities are in all ramifications superior to polytechnics (Njoku, 2021:5). Empirical experiences further illustrate this bias. For instance, a former student of one of the researchers was reportedly rejected during her National Youth Service Corps (NYSC) placement at a university in the North-Central geopolitical zone on the grounds that she graduated from a “lower” institution. Additionally, polytechnic graduates often face barriers in professional registration and postgraduate admissions, frequently being required to complete postgraduate diploma programmes before progressing. These systemic constraints negatively influence the choices of students and their families.
- d) ***Bachelor’s Degree–Higher National Diploma (BSc–HND) dichotomy:*** The BSc–HND dichotomy remains one of the most significant structural challenges facing polytechnic education. This form of institutionalised discrimination is particularly evident in public sector employment. As noted by Njoku (2021:4) “in the administrative cadre, while degree holders are employed as Administrative Officers, holders of Higher National Diploma (HND) are employed as Executive Officers and made to work under the supervision of their peers who hold degrees”. In a system where formal qualifications often outweigh practical skills and competencies, this dichotomy undermines the attractiveness of polytechnic education and discourages prospective applicants.
- e) ***Demand patterns for institutions and enrollment behaviour:*** Enrollment patterns are strongly influenced by perceptions of prestige and expected socioeconomic returns. Many students and their parents prioritise university education due to its symbolic value and perceived advantages. The intense competition for limited spaces federal and state universities, particularly for high-demand courses, has also contributed to the growing demand for private universities (Olagunju, 2017). Furthermore, some candidates who failed to secure admission into their preferred courses often reject alternative offers, even within the same institution (Tolu-Kolawole et al, 2025). The BSc–HND disparity further

shapes enrollment decisions, with polytechnics frequently serving as a last resort for candidates unable to gain university admission (Lawal, 2025).

- f) ***Proliferation of universities:*** The expansion of universities, particularly private institutions has intensified competition for student enrollment. As indicated earlier, Nigeria currently has 168 private universities (see table 3), with significant growth recorded between 2023 and 2025, when 53 of them were established. During this period, numerous federal and state universities were also established (National Universities Commission, n.d). This expansion has increased access to university education, which is widely perceived as more desirable. Additional advantages associated with universities, such as shorter programme duration in some disciplines, uninterrupted academic calendars, and comparatively better infrastructure, further attract prospective students away from polytechnics.
- g) ***Migration of academic staff from polytechnics to universities:*** Another contributing factor is the migration of qualified academic staff from polytechnics to universities. Many lecturers leave the polytechnics system in pursuit of career advancement, particularly the attainment of professorial status, which is not available within polytechnics. The designation of “Chief Lecturer” as the highest academic rank lacks the prestige associated with professorship, thereby limiting career fulfillment for many academics. As Kesuwo in Daily Trust (2012) observes, ‘brilliant lecturers leave polytechnics because they desire to become professors, which is only attained in the universities.’ This brain drain weakens the academic capacity of polytechnics and further diminishes their appeal to prospective students.

Policy Recommendations for Repositioning Polytechnic Education within Nigeria’s Evolving Tertiary Education System

The foregoing analysis has highlighted the key factors driving and sustaining the decline in enrollment in polytechnics in Nigeria. As the tertiary education landscape continues to evolve, certain developments, such as the unification of matriculation examinations for students and the increasing emphasis on higher academic qualifications for staff recruitment and progression, suggest a move toward standardisation across institutions. However, these apparent indicators of parity have yet to fully translate into broader systemic equality. This disconnect partly explains the contradictions observed within the system, where a significant proportion of applicants remain unable to secure admission, while many institutions simultaneously underutilise their admission capacities.

Within this context, polytechnics continue to experience declining enrollment alongside the rapid expansion of private universities. If these trends persist unchecked, critical questions arise regarding the future and relevance of polytechnic education in Nigeria. Addressing this challenge requires deliberate policy reforms, equitable funding, and strategic repositioning to enhance the attractiveness and competitiveness of polytechnics within the evolving educational ecology.

Accordingly, this study proposes the following policy recommendations:

- 1) ***Government fairness and objectivity:*** Funding allocation and infrastructural development should be guided by objective, needs-based criteria to ensure that all tertiary institutions are adequately equipped to deliver quality education. Existing policy biases in favour of universities should be discontinued, as they reinforce systemic inequality and negatively influence institutional choice among students and their families.
- 2) ***Abolition of the BSc-HND dichotomy:*** The elimination of the BSc-HND dichotomy is critical to restoring parity within the system. Replacing the Higher National Diploma (HND) with a Bachelor of Technology (B.Tech) degree would align polytechnic qualifications with university degrees and reduce entrenched discrimination and stigma. Achieving this reform would require the establishment of a high-level committee, legislative amendments, presidential assent, and comprehensive implementation across employment, career progression, and conditions of service. The urgency of this reform cannot be overstated.
- 3) ***Elevation of qualified polytechnics to polytechnic-university status:*** Upgrading well-established polytechnics to polytechnic-university status would expand access to degree programmes and reduce the pressure on conventional universities. This reform would also address the tendency of candidates to forgo admission while awaiting university placement. Government should institute a transparent framework to identify eligible institutions and facilitate their transition to polytechnic-university, drawing on models from countries such as Germany, Canada, the Philippines, and Ghana.
- 4) ***Amalgamation of institutions:*** The proliferation of tertiary institutions has contributed to fragmented resources and inefficiencies. Rather than establishing new institutions as constituency projects, (Alausa in Tolu-Kolawole, 2025), federal and state lawmakers should prioritise the consolidation or amalgamation of existing ones, particularly in states with multiple polytechnics. This approach would optimise resource utilisation, strengthen infrastructure, and improve overall institutional capacity.
- 5) ***Introduction of the Professorial rank in polytechnics:*** The introduction of the professorial cadre within polytechnics would help stem the migration of highly qualified academic staff to universities. Creating clear career progression pathways that allow academics to attain the highest levels of scholarly recognition within the polytechnic system would enhance staff retention and institutional stability.
- 6) ***Establishment of a National Polytechnics Commission (NPC):*** Given the broad mandate and workload of the National Board for Technical Education (NBTE), there is a compelling case for establishing a dedicated National Polytechnics Commission. Such a body would provide focused oversight, policy direction, and regulatory support tailored specifically to the needs of polytechnics, thereby facilitating more effective sectoral development.
- 7) ***Political will to implement existing policy recommendations:*** Numerous committees and policy reports, spanning from the Ademokun (1982) to more recent interventions, have consistently recommended the elimination of structural dichotomies between universities and polytechnics (Njoku, 2021:1). What remains lacking is not diagnosis, but implementation. Government must demonstrate the political will to translate these longstanding recommendations into concrete reforms.

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