

**ADMISSION CONSTRAINTS AS STRUCTURAL MISALLOCATION:
REFRAMING UNIVERSITY ACCESS AND HUMAN CAPITAL FORMATION IN
NIGERIA**

Oyemade M. OBAFEMI¹ & Donald A. ODELEYE²

**¹Department of Arts and Social Science Education
Lead City University, Ibadan, Nigeria,**

&

**²Department of Guidance and Counselling
Lead City University, Ibadan, Nigeria.**

Abstract

Nigeria's university admission system, overseen by the Joint Admissions and Matriculation Board (JAMB), is commonly analysed as an access governance instrument, with existing scholarship concentrating almost exclusively on who is admitted and how equitably places are distributed. This narrow access focus leaves a critical problem unexamined: admission constraints are treated as neutral filters, while their independent role in distorting student programme matching and the attendant costs to human capital formation and graduate labour market outcomes, remains largely untheorised. The objective of this article, therefore, is to reconceive admission constraints as structural misallocation forces that systematically distort student programme matching efficiency, with significant implications for human capital formation and graduate labour market outcomes. Methodologically, the article adopts a conceptual and theoretical synthesis approach, integrating Human Capital Theory, Signalling Theory, Educational Mismatch Theory, and Roy Sattinger Allocation Theory around matching efficiency as a single analytical axis, and developing a three-stage causal model, Constraints, Allocation Distortion, Human Capital Impairment, that traces how upstream admission decisions generate downstream economic losses at individual and national levels. The analysis identifies four structural misallocators operating within Nigeria's admission architecture, namely JAMB score thresholds, departmental carrying capacity ceilings, catchment area quotas, and gender equity measures, each of which displaces students from programmes in which they hold a comparative educational advantage. The paper concludes that meaningful reform requires a fundamental design shift towards preference-revealing, stability-preserving matching algorithms that treat allocation efficiency as a primary normative criterion of admission policy, alongside conventional measures of access and equity.

Keywords: Structural misallocation, university admissions, human capital formation, student-programme matching, JAMB

INTRODUCTION

Access is the predominant lens through which university admissions procedures in developing nations are analysed. Admission systems have long been evaluated primarily in terms of the number of students admitted, the fairness of distributional outcomes, and the degree to which they expand participation in higher education (Altbach et al., 2019; Marginson, 2016; Salmi & Bassett, 2014). Nigeria's admissions architecture built around JAMB, the National Universities Commission (NUC), and a complex web of institutional, disciplinary, and geographic quota requirements has been assessed almost entirely through this access lens. The result is a body of literature that details who is admitted and who is not, but says comparatively little about an equally consequential question: once admitted, are students placed in programmes that maximise their educational and economic prospects?

This paper contends that the silence is analytically untenable. It proposes a theoretical reframing of Nigeria's university admissions system, shifting the normative unit of analysis from access to allocation efficiency, and from gatekeeping to matching quality. The central argument is that admission constraints in Nigeria do not simply regulate the volume of university entrants; they structurally distort the student–programme matching process in ways that constitute a form of human capital misallocation, with plausible welfare consequences at individual, institutional, and national levels.

This reframing carries significant theoretical implications. If admission constraints function as misallocators rather than merely as access filters, then the policy reform agenda must move beyond cut-off mark adjustment and capacity expansion to address the architecturally prior question of how students are matched with programmes. The appropriate theoretical resources for this agenda are found at the intersection of Roy–Sattinger Allocation Theory (Gale & Shapley, 1962; Roy, 1951; Sattinger, 1993) as the primary explanatory framework, with Human Capital Theory (Becker, 1964; Goldin, 2016; Schultz, 1961), Signalling Theory (Arrow, 1973; Spence, 1973), and Educational Mismatch Theory (Freeman, 1976; Leuven & Oosterbeek, 2011; Verhaest & Omey, 2006) providing complementary explanatory layers. These theories are not deployed sequentially but are integrated around a single analytical axis: what happens when institutional constraints prevent students from being placed in the programmes where they have comparative educational advantages?

The article proceeds as follows. Section 2 critically examines the dominant access framework and identifies its analytical limitations in the Nigerian context. Section 3 develops the structural misallocation framework, specifying its theoretical foundations and the role of each contributing theory. Section 4 applies the framework to the four principal admission constraint mechanisms in Nigeria. Section 5 presents the three-stage causal model. Section 6 addresses intersectional dimensions of misallocation. Section 7 discusses policy implications. Section 8 concludes.

LITERATURE REVIEW

The Access Framework and its Analytical Limits

The access framework treats university admissions procedures as mechanisms for distributing limited university places among a larger pool of qualified applicants. Under this framework, admission constraints are the regulatory mechanisms governing the volume and composition of the admitted student body, and the normative criterion is inclusion: good admission procedures admit more students, more equitably, and reduce barriers to participation (Omeje et al., 2016; Unterhalter, 2019).

This approach has generated significant insights into the structural inequities characterising access to higher education in Sub-Saharan Africa. Research consistently demonstrates that admission barriers, whether formal (such as standardised examination requirements) or informal (such as geographic and socioeconomic constraints on secondary school quality), systematically disadvantage students from rural, low-income, and historically marginalised communities (Bathmaker et al., 2016; Okeke & Madu, 2021). In Nigeria, the empirical record is substantial. Joint Admissions and Matriculation Board (2023) data show that institutional score floors, particularly in medicine and engineering, consistently exceed the JAMB minimum by substantial margins, progressively narrowing access for candidates from educationally underserved states in the North-Central zone. Ebuara et al. (2020) documented that NUC carrying capacity guidelines were routinely exceeded in high-demand programmes while low-demand programmes remained chronically under-enrolled, a pattern that suggests structural misalignment between applicant preferences and programme placement outcomes. Okeke and Madu (2021) further demonstrated that rural candidates in North-Central Nigeria face a compounding disadvantage: lower average UTME scores generated by weaker secondary schools, combined with catchment area restrictions that limit their institutional options, produce admission outcomes disproportionately disconnected from demonstrated academic potential. Asiegbo et al. (2025) examined academic major satisfaction among Nigerian undergraduates and found substantial rates of involuntary programme placement, with students reporting enrolment in courses the university assigned rather than those they preferred, a pattern corroborated by evidence that approximately one in three Nigerian undergraduates studies a course assigned to them rather than their first-choice programme (Ajibola et al., 2017, as cited in Asiegbo et al., 2025). Taken together, this body of evidence suggests that admission constraints do not function as neutral filters. Rather, they amplify pre-existing inequalities in ways that conventional access frameworks, which prioritise entry over placement quality, have not systematically captured.

However, the access framework has at least three significant analytical limitations. First, it takes the point of admission as the terminus of analysis. Once a student enters a university, the framework turns to questions of persistence, graduation, and labour market outcomes without systematically interrogating the allocation decision itself: not only whether students entered, but what they studied and whether that study was optimally matched to their capacities and aspirations.

Second, the access framework implicitly treats admission as the end of the admissions system's responsibility. Subsequent educational experience is attributed to institutional quality, student effort, and programme design. This assumption is problematic in systems like Nigeria's, where a substantial proportion of admitted students are enrolled in programmes that are neither their first choice nor well matched to their academic preparation (Asiegbo et al., 2025; Joint Admissions and Matriculation Board, 2023). When admission constraints create chronic misallocation, educational quality itself becomes a downstream consequence of those constraints, a causal pathway the access framework is fundamentally ill-equipped to trace.

Third, the access framework lacks a vocabulary for efficiency. Its central concepts, namely access, equity, inclusion, and participation, are distributive rather than allocative in focus. As a result, it can explain who gets into higher education, but not whether the resulting programme placements are efficient or appropriate. A framework capable of fully addressing the repercussions of admission constraints in Nigeria must therefore speak two analytical languages: distributional equity and allocative efficiency. The structural misallocation framework proposed here aims to provide this integrated vocabulary.

Structural Misallocation

Structural misallocation, as used in this article, refers to the systematic distortion of the student programme matching process caused by institutional and regulatory constraints that prevent students from being placed in academic programmes most compatible with their preferences, aptitudes, and career goals. The modifier 'structural' carries three implications. First, the misallocation originates not in individual student characteristics or institutional idiosyncrasies, but in the regulatory architecture of the admission system itself: the rules, thresholds, quotas, and ceilings that govern programme placement. Second, it is systematic: it operates reliably across cohorts, institutions, and time, producing consistent and directional patterns of misplacement that are not random. Third, it is distinguished from voluntary self-selection mismatch: students do not choose poor placements when alternatives are available; they are constrained into them by the structural features of the system.

This definition draws on the labour economics concept of structural unemployment, defined as joblessness caused by institutional rigidities and market failures rather than individual characteristics or cyclical demand fluctuations (Mortensen & Pissarides, 1994). As structural unemployment is produced by search frictions, wage rigidities, and skills mismatches embedded in labour market architecture, structural misallocation in higher education is produced by score thresholds, capacity ceilings, quota constraints, and the absence of preference-revelation mechanisms embedded in admission system architecture.

Theoretical Review

The structural misallocation framework integrates four bodies of theory into a single explanatory model. Rather than viewing these theories as separate or sequential accounts, it uses Roy–Sattinger Allocation Theory as the central framework. The remaining three theories help explain the specific pathways through which misallocation produces welfare loss.

Roy–Sattinger Allocation Theory provides the formal efficiency logic. Roy (1951) demonstrated that aggregate production is maximised when individuals are assigned to activities in which they have comparative advantages, and diminished when institutional constraints displace individuals from their optimal activity. Sattinger (1993) extended this to the assignment of workers to diverse jobs, showing that departures from efficient assignment produce welfare losses proportional to the degree of mismatch. Applied to university admissions, the framework predicts that any system preventing students from accessing programmes where they hold comparative educational advantages, whether through score thresholds, capacity ceilings, or quota constraints, generates welfare losses distributed across students, institutions, and the national economy. Gale and Shapley's (1962) deferred acceptance algorithm provides the normative baseline: a well-designed matching system should be stable, preference-revealing, and efficiency-maximising. Nigeria's current admission architecture appears to fall short on all three criteria, though systematic empirical evaluation of each dimension remains an important task for future research.

Human Capital Theory (Becker, 1964; Goldin, 2016; Hanushek & Woessmann, 2015; Schultz, 1961) specifies the welfare logic of misallocation. If education is an investment in productive capacity, the return on that investment depends not only on its duration but on the fit between educational content and the student's ability to engage with it. A student enrolled in a misaligned programme acquires human capital less effectively than she would in a well-matched one, yielding lower skill development, weaker professional preparation, and reduced labour market returns. This theory answers the question of why misallocation matters: it constitutes a form of capital investment that fails to achieve its potential return.

Signalling Theory (Arrow, 1973; Spence, 1973) specifies the informational consequences of misallocation. University credentials function in labour markets as signals of worker quality. Admission constraints distort the selective function of the admission process: placing high-achieving students in less competitive programmes due to capacity constraints, or admitting marginal students to selective programmes through quota mechanisms, corrupts the informational content of credentials. When employers cannot distinguish between graduates whose programme placements reflected genuine talent and those shaped by systemic admission constraints, the signalling value of qualifications is degraded, a market failure that compounds the direct human capital losses identified by Human Capital Theory.

Educational Mismatch Theory (Capsada-Munsech, 2020; Freeman, 1976; Leuven & Oosterbeek, 2011; Verhaest & Omey, 2006) completes the explanatory architecture by tracing the path from allocation distortion to labour market outcomes. The theory distinguishes between vertical mismatch, where educational level exceeds or falls short of occupational requirements, and horizontal mismatch, where field of study does not correspond to occupational domain. The structural misallocation framework applies this logic upstream: rather than treating educational mismatch as a labour market event, it traces horizontal mismatch back to the admission-level constraints that determine what students study. Involuntary programme placement at admission becomes the fundamental antecedent of occupational mismatch in the labour market, relocating the primary policy intervention point from employment services to the admission architecture itself.

Taken together, these four theories form a coherent explanatory architecture: Roy–Sattinger defines the efficiency conditions that admission systems should satisfy; Human Capital Theory specifies the cost when they do not; Signalling Theory identifies the informational market failure that compounds direct costs; and Mismatch Theory traces the chain from admission-level allocation distortion to labour market disadvantage. Each theory illuminates a distinct mechanism within the three-stage causal model developed in Section 5.

THE FOUR STRUCTURAL MISALLOCATORS IN NIGERIA'S ADMISSION SYSTEM

AMB Score Threshold Constraints

The JAMB Unified Tertiary Matriculation Examination (UTME) cut-off mark is Nigeria's most prominent admission constraint (Joint Admissions and Matriculation Board, 2023). As the primary gatekeeper, the JAMB cut-off, supplemented by institution-specific requirements that frequently exceed the JAMB minimum, determines which candidates are eligible for specific programmes. In allocative terms, the threshold functions as a hard constraint on programme access: students falling

below the applicable cut-off are categorically excluded from their preferred programmes regardless of potential aptitude, demonstrated competency in relevant domains, or capacity for academic development.

The misallocation mechanism is direct. Students who narrowly miss the cut-off for their preferred programme are either denied admission entirely or directed to less selective programmes with lower entry requirements. The former represents a complete allocation failure; the latter a partial one in which a match is made between the student and a second-best programme rather than the one most likely to maximise her educational development. The welfare loss in both scenarios follows directly from the Roy–Sattinger framework: the student is displaced from the allocation that would generate the highest return on her educational investment.

This misallocative effect is compounded by educational quality disparities across Nigerian states (Okeke & Madu, 2021; Joint Admissions and Matriculation Board, 2023). JAMB scores reflect secondary school quality as well as individual aptitude. Students from underserved schools in rural regions may score below the cut-off not because they lack the capacity to succeed in their preferred programmes, but because their preparation for the examination has been systematically inadequate. The threshold thereby embeds pre-existing educational inequities into the admission decision, perpetuating rather than addressing the structural disadvantages students carry into the examination hall (Ebuara et al., 2020).

Departmental Carrying Capacity Constraints

Departmental carrying capacities (the maximum number of students that NUC regulations allow each programme to admit) are, from an allocative perspective, potentially the most significant source of structural misallocation in the Nigerian university system (Ebuara et al., 2020; National Universities Commission, 2023). Unlike score thresholds, which exclude students based on academic performance, carrying capacity ceilings exclude students based on their position in the admission queue. Once a programme reaches its approved intake, no additional students can be admitted, regardless of their qualifications, programme preferences, or potential suitability for the programme.

Carrying capacity constraints are allocatively inefficient because they ignore how well students' preferences align with particular programmes. Once a programme reaches its approved intake, all remaining applicants are excluded, including students who may be excellent matches for the programme. Their exclusion occurs not because they lack the required qualifications or suitability, but because all available places have already been allocated. Gale and Shapley (1962) and Roth (2008) identify this as a fundamental violation of stable matching principles: the system does not use preference information to generate stable matches, and students who would mutually prefer a programme are separated by an administratively arbitrary queue.

Carrying capacity constraints also generate a structural incentive toward administrative misplacement. When popular programmes reach capacity, institutions face pressure to direct remaining applicants to less sought-after programmes, producing systematic assignment decisions made not on the basis of matching logic but on institutional convenience and regulatory compliance.

Catchment Area and Geographic Quota Constraints

Geographic catchment area requirements, which mandate that a specified proportion of each institution's intake come from states within its catchment zone, constitute a third structural

misallocator operating on spatial rather than academic criteria (Omeje et al., 2016). The policy rationale is defensible: catchment requirements are intended to promote geographic representation, support regional development, and prevent the concentration of university enrolment in educationally advantaged areas. These equity objectives are not inherently incompatible with allocation efficiency; however, their current implementation in Nigeria carries significant allocative costs (Okeke & Madu, 2021).

The misallocation mechanism operates through displacement. When catchment area requirements mandate the admission of students from specific states, they may displace academically better-prepared out-of-zone applicants who would represent stronger matches for available programme places. Those displaced applicants are either denied admission or redirected to institutions where geographic constraints are less binding, generating both spatial and programme misallocation. Students admitted through catchment provisions, meanwhile, may find themselves in programmes for which their secondary preparation is insufficient, producing a form of vertical mismatch (Leuven & Oosterbeek, 2011; Verhaest & Omeje, 2006), with consequences for both academic achievement and subsequent labour market outcomes (Allen & van der Velden, 2020).

Gender and Equity Quota Constraints

Gender equity quota provisions designed to ensure minimum female representation in programmes with historically lopsided gender distributions constitute the fourth structural misallocator. These provisions respond to the well-documented tendency for market mechanisms and cultural factors to produce systematic under-representation of women in STEM fields (Bathmaker et al., 2016; Unterhalter, 2019). The equity case for gender quotas is substantive and must be acknowledged. The allocative analysis, however, is more nuanced.

Gender quotas produce two analytically distinct allocative effects. On one hand, quotas can correct a form of positive misallocation by admitting female students to programmes where they are under-represented but may be genuinely well-matched, addressing a prior misallocation generated by cultural and social constraints external to the admission system. On the other hand, when quotas are implemented as binding minimums filled regardless of the academic preparation of available female applicants, they risk placing students in programmes for which they are inadequately prepared, generating a form of vertical mismatch that may, paradoxically, reinforce gender stereotypes about academic performance rather than challenge them.

The theoretical resolution of this tension requires distinguishing between quota mechanisms that expand access to well-matched female students and those that generate allocation distortions in pursuit of numerical targets. The structural misallocation framework does not oppose gender equity objectives; it insists that they be pursued through mechanisms that simultaneously promote matching efficiency, so that equity and allocation quality reinforce rather than undermine each other.

A THREE-STAGE THEORETICAL MODEL: CONSTRAINTS, ALLOCATION DISTORTION, AND HUMAN CAPITAL IMPAIRMENT

The four structural misallocators described in Section 4 interact within a shared causal architecture. This section formalises that architecture as a three-stage theoretical model tracing how admission constraints generate downstream human capital and labour market effects. Each stage corresponds to a distinct mechanism in the integrated theoretical framework developed in Section 3.

Stage One: Constraint Activation

In the first stage, one or more of the four structural misallocators imposes a binding constraint on a student's admission decision. JAMB score thresholds disqualify the student from her first-choice programme; departmental capacity ceilings close access before her application is fully processed; catchment area requirements prevent her from attending an out-of-zone institution; gender quotas fill available places before she is considered. In the Nigerian system, students frequently face multiple binding constraints simultaneously, each reinforcing the allocative distortion of the others.

Critically, constraint activation is not random. It is systematically associated with social background, regional origin, and gender all of which are themselves products of Nigeria's deeply unequal secondary education landscape. Students from educationally disadvantaged backgrounds are both more likely to face binding score thresholds (because their schooling has not prepared them adequately for the UTME) and less able to compensate for programme misallocation through supplementary resources, private tutoring, or social networks. Constraint activation is thus simultaneously an allocative event and an inequality-amplifying one.

Stage Two: Allocation Distortion

In the second stage, constraint activation produces allocation distortion: the student is assigned to a programme that diverges from her stated first-choice preference, her measured aptitude profile, or both. The severity of this distortion varies. At the less severe end, a student may be placed in a closely ranked alternative programme, generating modest welfare losses. At the more severe end, a student may be enrolled in a programme she neither applied for nor has any intrinsic interest in, producing allocation distortion whose welfare implications are substantially larger.

Allocation distortion operates through three analytically separable channels. Preference distortion occurs when programme placement diverges from stated first-choice preferences, creating a mismatch between the student's motivating investment and the programme she must pursue. Aptitude distortion arises when placement does not match demonstrated or latent academic strengths, either because the programme is more demanding than her preparation allows, or because it fails to challenge her capacity. Career distortion emerges when placement does not align with professional aspirations, creating misalignment between educational investment and intended occupational domain. Evidence from Nigerian universities suggests that all three channels of distortion are frequently activated concurrently (Asiegbu et al., 2025; Joint Admissions and Matriculation Board, 2023).

Stage Three: Human Capital Impairment

In the third stage, allocation distortion generates human capital impairment across three interconnected dimensions. Academic performance suffers because students in misaligned programmes are less intrinsically motivated, less engaged with their curriculum, and less willing to invest the sustained effort required for deep learning (Aina et al., 2021). The resulting decline in academic achievement reflected in weaker grades, shallower disciplinary knowledge, and reduced professional competency, directly affects the quality of human capital graduates carry into the labour market (Hanushek & Woessmann, 2015).

Signalling impairment occurs when the credentials acquired by misallocated students encode misleading information about their genuine capabilities (Arrow, 1973; Spence, 1973). A capable student who graduates with a second-class degree in an uncongenial programme signals less to

prospective employers than she would have had she graduated with distinction in her preferred field even if her underlying productive capacity is unchanged. Conversely, a student admitted through quota mechanisms to a programme for which she is inadequately prepared may obtain a credential that overstates her domain-specific competency, generating signalling inflation that degrades the credibility of qualifications from the affected programme.

The cumulative result is labour market impairment. Misallocated graduates compete for employment with weaker academic credentials than they would have acquired in well-matched programmes; they lack the field-specific human capital that would facilitate entry into occupations aligned with their training; and they tend to earn less both because their credentials signal lower quality and because they are more likely to be employed in occupations that do not utilise their educational investments (Allen & van der Velden, 2020; Capsada-Munsech, 2020; Leuven & Oosterbeek, 2011). These theoretical predictions await systematic empirical testing in the Nigerian context, which represents a priority for future research.

INTERSECTIONAL DIMENSIONS OF STRUCTURAL MISALLOCATION

The three-stage causal model operates with varying intensity across demographic groups, generating patterns of compounding disadvantage that a purely aggregate efficiency analysis would fail to capture (Bathmaker et al., 2016). Gender, socioeconomic background, and geographic origin each modulate the relationship between constraint activation and human capital impairment.

For female students, structural misallocation interacts with pre-existing gender disparities in educational preparation, programme preferences, and labour market conditions (Marginson, 2016; Unterhalter, 2019). When capacity constraints activate in high-demand fields, female candidates in Nigeria face statistically elevated exposure to both catchment area and gender quota constraints and are more likely to be redirected to programmes outside their preferred set. Once misallocated, female students may encounter additional barriers to academic recovery including reduced access to peer networks within uncongenial programmes and diminished support for career redirection, compounding the academic and labour market effects of the initial misallocation.

For students from lower socioeconomic backgrounds, structural misallocation interacts with resource constraints that limit their capacity to compensate for poor programme placement (Bathmaker et al., 2016; Salmi & Bassett, 2014). Students from higher-income households can partially offset admission-level misallocation through private tutoring, career counselling, and professional networking. Students from lower-income families, lacking these compensating resources, bear the full welfare cost of misallocation. Socioeconomic background thus functions not only as a predictor of constraint activation but as a modulator of its welfare consequences, amplifying harm for those least positioned to absorb it.

Geographic origin adds a third intersectional dimension, particularly along the rural–urban divide (Okeke & Madu, 2021). Rural students face elevated exposure to binding JAMB score thresholds (due to lower secondary school quality), catchment area requirements that may direct them toward institutions with reduced programme diversity, and limited access to urban labour markets offering the highest returns to human capital. The geographic dimension of structural misallocation intersects with socioeconomic background and gender to produce a matrix of compounding disadvantage whose aggregate welfare implications exceed what any single inequality factor would predict (Omeje et al., 2016).

POLICY IMPLICATIONS

The reframing proposed in this article carries immediate implications for Nigeria's admission policy reform agenda. If admission constraints function as structural misallocators with plausible human capital costs, reform efforts must address the allocative architecture of the admission system itself not merely cut-off mark thresholds and capacity figures.

The most fundamental implication is that Nigeria's admissions system requires a preference-revelation mechanism. Under the current CAPS framework, stated programme preferences are heavily shaped by score thresholds, capacity limits, and quota provisions rather than by genuine student preferences. A reformed system that captures and utilises ranked preference information similar to the deferred acceptance algorithms employed in medical residency matching and national university placement systems in the United Kingdom, Turkey, and South Korea would be expected to improve match quality and reduce involuntary programme placement (Roth, 2008). The technical infrastructure for such a system exists within JAMB's digital operations; the primary barrier to implementation is institutional rather than technical.

Second, carrying capacity ceilings require fundamental policy reform. The NUC's approach of enforcing uniform capacity constraints without reference to student preference distributions produces foreseeable allocation failures that post-admission counselling cannot adequately address (Ebuara et al., 2020; National Universities Commission, 2023). A reformed approach would treat carrying capacity as a variable baseline subject to periodic review in light of applicant demand data, graduate outcome evidence, and labour market signals rather than a static regulatory parameter determined by physical infrastructure alone.

Third, the framework suggests incorporating allocation efficiency indicators into the performance evaluation of Nigeria's admission system. Current JAMB and NUC metrics focus on access indicators: numbers admitted, distributional equity across states, and quota compliance (Salmi & Bassett, 2014; Unterhalter, 2019). A reformed evaluation framework would supplement these with allocation efficiency indicators: the proportion of admitted students enrolled in first-choice or closely ranked programmes; the alignment between admitted students' JAMB subject performance profiles and their programme's academic requirements; and, over time, the correlation between admission allocation outcomes and academic performance and graduate labour market trajectories (Asiegbu et al., 2025).

Finally, the intersectional analysis in Section 6 highlights the need for an approach to allocation reform that incorporates equity considerations (Marginson, 2016). Reform efforts that improve overall allocation efficiency without addressing the disproportionate burdens faced by female, low-income, and rural students may reduce overall misallocation while simultaneously increasing existing inequalities. Equity-centred admission reform must pursue the dual objective of improving overall matching efficiency while targeting the specific structural features: inadequately resourced secondary schools, poorly designed catchment area formulas, and poorly calibrated gender quota thresholds that generate compounded disadvantage for those most vulnerable to structural misallocation (Okeke & Madu, 2021; Omeje et al., 2016).

CONCLUSION

This article has argued for a significant theoretical reorientation in how scholars and policymakers conceptualise Nigeria's university admission system. The traditional access paradigm, which

evaluates admission constraints solely in terms of who enters higher education, is analytically insufficient to capture the full welfare implications of these constraints. A structural misallocation framework, anchored in Roy–Sattinger Allocation Theory and integrated with Human Capital Theory, Signalling Theory, and Educational Mismatch Theory, evaluates admission constraints in terms of how efficiently students are matched with programmes, providing a more complete theoretical account of the pathway from upstream admission decisions to downstream human capital impairment and labour market disadvantage.

The framework developed here traces how JAMB score thresholds, departmental carrying capacity ceilings, catchment area quotas, and gender equity provisions generate allocation distortions that theoretically impair academic performance, degrade credential signals, and reduce graduate labour market outcomes. It also identifies gender, socioeconomic background, and geographic origin as intersectional modifiers that amplify the welfare consequences of structural misallocation for students already disadvantaged by Nigeria's educational inequities.

The practical implications of this reframing are clear: Nigeria's admission architecture should be redesigned from a threshold-and-quota system toward a preference-revealing, stability-preserving matching mechanism; carrying capacity constraints should be reconceived as dynamic policy variables rather than static regulatory parameters; and allocation efficiency metrics should be incorporated into the evaluation of admission system performance alongside conventional access indicators.

The structural misallocation framework is a theoretical contribution. Its value will ultimately be established by the empirical research programmes it generates and the policy interventions it informs. Future scholarship should prioritise empirical testing of the three-stage model, particularly the links between constraint activation, programme misalignment, and measurable labour market outcomes, using graduate survey data, programme-level tracking studies, and econometric analysis of the JAMB administrative record. Nigerian higher education researchers are invited to deploy this framework as a theoretical lens through which the allocation consequences of admission policy can be rigorously examined and progressively corrected through evidence-based reform.

REFERENCES

- Aina, C., Baici, E., Casalone, G., & Pastore, F. (2021). The determinants of university dropout: A review of the socio-economic literature. *Socio-Economic Planning Sciences*, 74, 100819. <https://doi.org/10.1016/j.seps.2020.100819>
- Asiegbu, M. F., Obioha, C. W., Dimonye, S. C., Anikpe, E. A., Nwaogaidu, J. C., Okoro, C. K., Chinweze, U. C., & Chukwuorji, J. B. C. (2025). Academic major satisfaction in a sample of Nigerian university students. *Journal of Psychological Assessment*, 35(3), 1–15. <https://doi.org/10.32604/jpa.2025.63239>
- Allen, J., & van der Velden, R. (2020). Transitions from higher education to work. In P. J. Burke, J. Bennett, & M. Doherty (Eds.), *The Routledge handbook of the sociology of higher education* (pp. 93–104). Routledge.
- Altbach, P. G., Reisberg, L., & Rumbley, L. E. (2019). *Trends in global higher education: Tracking an academic revolution*. Brill.

- Arrow, K. J. (1973). Higher education as a filter. *Journal of Public Economics*, 2(3), 193–216. [https://doi.org/10.1016/0047-2727\(73\)90013-3](https://doi.org/10.1016/0047-2727(73)90013-3)
- Bathmaker, A. M., Ingram, N., Abrahams, J., Hoare, A., Waller, R., & Bradley, H. (2016). *Higher education, social class and social mobility: The degree generation*. Palgrave Macmillan.
- Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. National Bureau of Economic Research.
- Capsada-Munsech, Q. (2020). Overeducation, skills and social background. *Compare: A Journal of Comparative and International Education*, 50(2), 216–236. <https://doi.org/10.1080/03057925.2019.1640530>
- Ebuara, V. O., Edet, A. O., & Okpa, O. E. (2020). Managing school carrying capacity for effective teaching and learning in public universities in Nigeria. *European Journal of Social Sciences*, 60(3), 174–183.
- Freeman, R. B. (1976). *The overeducated American*. Academic Press.
- Gale, D., & Shapley, L. S. (1962). College admissions and the stability of marriage. *The American Mathematical Monthly*, 69(1), 9–15. <https://doi.org/10.2307/2312726>
- Goldin, C. (2016). Human capital. In C. Diebolt & M. Hupert (Eds.), *Handbook of cliometrics* (pp. 55–86). Springer.
- Hanushek, E. A., & Woessmann, L. (2015). *The knowledge capital of nations: Education and the economics of growth*. MIT Press.
- Joint Admissions and Matriculation Board. (2023). *JAMB annual report 2022/2023*. JAMB Publications.
- Leuven, E., & Oosterbeek, H. (2011). Overeducation and mismatch in the labour market. In E. A. Hanushek, S. Machin, & L. Woessmann (Eds.), *Handbook of the economics of education* (Vol. 4, pp. 283–326). Elsevier.
- Marginson, S. (2016). The worldwide trend to high participation higher education: Dynamics of social stratification in inclusive systems. *Higher Education*, 72(4), 413–434. <https://doi.org/10.1007/s10734-016-9995-x>
- Mortensen, D. T., & Pissarides, C. A. (1994). Job creation and job destruction in the theory of unemployment. *The Review of Economic Studies*, 61(3), 397–415. <https://doi.org/10.2307/2297896>
- National Universities Commission. (2023). *Benchmark minimum academic standards for undergraduate programmes in Nigerian universities*. NUC.
- Okeke, C. I. A., & Madu, I. A. (2021). Social stratification and unequal access to higher education in North-Central Nigeria. *Journal of Education and Society in Africa*, 9(1), 22–41.
- Omeje, J. C., Egwa, E. I., & Adikwu, V. O. (2016). Impact of quota system and catchment area policy on university admissions in North Central Nigeria. *SAGE Open*, 6(2), 1–10. <https://doi.org/10.1177/2158244016654951>

- Roy, A. D. (1951). Some thoughts on the distribution of earnings. *Oxford Economic Papers*, 3(2), 135–146. <https://doi.org/10.1093/oep/3.2.135>
- Roth, A. E. (2008). Deferred acceptance algorithms: History, theory, practice, and open questions. *International Journal of Game Theory*, 36(3–4), 537–569. <https://doi.org/10.1007/s00182-008-0117-6>
- Salmi, J., & Bassett, R. M. (2014). The equity imperative in tertiary education: Promoting fairness and efficiency. *International Review of Education*, 60(3), 361–377. <https://doi.org/10.1007/s11159-014-9404-3>
- Sattinger, M. (1993). Assignment models of the distribution of earnings. *Journal of Economic Literature*, 31(2), 831–880. <https://doi.org/10.2307/2728516>
- Schultz, T. W. (1961). Investment in human capital. *The American Economic Review*, 51(1), 1–17. <https://doi.org/10.2307/1818907>
- Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics*, 87(3), 355–374. <https://doi.org/10.2307/1882010>
- Unterhalter, E. (2019). The many meanings of quality education: Politics of targets and indicators in SDG4. *Global Policy*, 10(S1), 39–51. <https://doi.org/10.1111/1758-5899.12608>
- Verhaest, D., & Omey, E. (2006). The impact of overeducation and its measurement. *Social Indicators Research*, 77(3), 419–448. <https://doi.org/10.1007/s11205-005-0215-9>