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The Development of Somalia's National Examination System (2015–2025): Lessons on Institutional Reform, Certification Harmonization, and Education Governance

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Abstract

A credible national examination system is central to education reform, especially in post-conflict countries trying to rebuild public confidence, ensure fair assessment, and strengthen governance. Somalia reintroduced its national examination system in 2015 and has since pursued substantial institutional reforms aimed at standardizing student assessment and harmonizing secondary school certification nationwide.

This study looks at how that system developed between 2015 and 2025, with particular attention to institutional reform, certification harmonization, and education governance. The goal is to weigh up what the decade actually achieved and draw out lessons that could inform examination reform elsewhere in fragile and post-conflict settings.

The analysis is a mixed-methods desk review built on secondary data: descriptive trend analysis of a 297,410-record candidate-level examination dataset (2015–2025), alongside qualitative content analysis of official records, policy documents, and published reports.

Somalia moved from a fragmented examination landscape to a nationally coordinated, more standardized one, with examination centres and participating schools expanding several times over and certification credibility improving overall, though Somaliland and Puntland still run their own systems outside the federal structure. That progress has not erased the harder problems: administrative capacity remains uneven, implementation differs sharply across federal member states, and federal-regional coordination still needs work.

Somalia's decade of experience offers a practical lesson for other fragile states rebuilding examination systems: sustained coordination, capable governance, reliable data, and ongoing investment in capacity are what ultimately make credibility and sustainability possible.

1. Introduction

A national examination system does more than test students. It standardizes certificates, measures achievement, and builds public trust in academic credentials, and in a country recovering from conflict, that function carries extra weight, since a credible exam system supports both fair assessment and the state's own legitimacy. Somalia relaunched its national examinations in 2015, a significant step after more than two decades in which fragmented private networks, and the separate administrations of Puntland and Somaliland, issued certificates that were not interchangeable with one another and largely outside central Ministry control (Section 2.1). How the system has developed since then is not just an education question; it speaks to the broader project of rebuilding a post-conflict state.

The study is organized around a conceptual framework that links five variables: institutional reform, certification harmonization, federal central coordination, assessment credibility and public trust, and state legitimacy (Section 2.6). The logic runs roughly like this: institutional reform, visible in the growth of

examination centres and schools, makes certification harmonization possible but does not guarantee it. Harmonization and federal central coordination reinforce each other, and together they shape how credible and trustworthy the assessment process appears. That trust then feeds back into state legitimacy, either widening or narrowing the political room available for further reform. It is this chain of relationships that shapes how the study reads Somalia's decade of examination data, from candidate-level trends down to persistent regional gaps.

Between 2015 and 2025, Somalia's examination system went through real reform in how it was managed, coordinated, and standardized, and national certificates gained credibility as a result. But the same period also exposed limits: administrative capacity remained uneven, implementation varied across federal states, and central-regional coordination stayed a persistent sticking point. What is missing, despite a decade of visible change, is a single evidence-based account of what actually happened and what it means. This study is not asking whether Somalia has an examination system; it clearly does. It is trying to answer a more specific question: how has that system actually developed, which reforms worked, which problems persisted, and what would it take to improve things further.

To answer that, the study reviews Somalia's national examination system from 2015 to 2025 using a 297,410-record candidate-level dataset alongside secondary sources, drawing out lessons for institutional reform, certification, and governance along the way. It pursues five specific objectives, analyzing trends in the system, examining key reforms, assessing their effect on certificate quality and consistency, identifying the main administrative challenges, and proposing policy recommendations, which map onto five corresponding research questions. The rest of the paper works through the relevant literature and historical background (Section 2), the conceptual and theoretical framework (Section 2.6), the methodology (Section 3), the results and discussion (Section 4), recommendations (Section 5), and finally the conclusion (Section 6).

2. Literature Review

2.1 Historical Background: Pre-2015 Certification Fragmentation

Long before the period this study examines, Somalia’s secondary level certification landscape had already been fragmented for more than two decades. Before 1991, a single secondary school certificate, issued exclusively by the central Ministry of Education, served the whole country. The collapse of central government that year left this certification function without a national issuing authority. In the resulting vacuum, more than a dozen private education networks (listed in Appendix Table 9) emerged: some developed their own curricula, while others adopted an existing foreign or regional curriculum unmodified, and each issued its own secondary certificates; several were recognized by foreign institutions for university admission. FPENS, the earliest and largest of these networks, still operates today indirectly, through the affiliated schools that continue to use its certification framework rather than through centrally run campuses. Over the same period, the regional administrations of Puntland and Somaliland built their own examination boards and certificates, maintained to a standard credible

enough to support their graduates' further study (MoECHE National Examination Office, administrative records).

The Ministry of Education began reconstituting a national examination in 2014, one year before the reintroduced system produced the first fully documented candidate cohort analyzed in this study. Alongside relaunching the examination itself, the Ministry took on the administrative task of harmonizing records inherited from the private umbrellas and from Puntland and Somaliland into a single national certification framework, so that graduates of the umbrella era and regional board systems, as well as of the post-2015 national system, could obtain an officially authenticated Somali National Secondary Certificate. The National Certification Office now operates approximately 16 service centres nationwide for this purpose. This pre-2015 fragmentation, more than a dozen parallel certifying authorities operating for over two decades, is the deeper historical backdrop against which this paper's certification harmonization findings should be read. The Banadir versus other FMS pass rate gap and the incomplete integration of Puntland and Somaliland documented in Section 4 continue a much longer history of parallel, only partially reconciled certifying systems, rather than originating within the 2015–2025 period alone (MoECHE National Examination Office, administrative records).

This arrangement has not been superseded so much as layered over. Puntland and Somaliland continue to administer their own secondary examinations in parallel with the national system, and the certificates they issue are recognized nationally in their own right. In practice, however, this recognition does not extend automatically to higher education: a student holding a Puntland or Somaliland certificate must first convert it into a Somali National Secondary Certificate before entering any university elsewhere in the country, since none of the roughly 130 universities nationwide accept a secondary certificate other than the national one for admission. The sole exception is universities located within Somaliland and Puntland themselves, which admit students directly on their own respective regional certificates. The national certificate therefore functions, in effect, as the single common currency of secondary credentialing, even where a state-level certificate is itself considered valid (MoECHE National Examination Office, administrative records). This is the clearest present-day illustration of the certification harmonization gap this paper investigates: two decades after the private umbrellas and regional boards first emerged, nationally recognized but non-interchangeable certificates still require an additional conversion step before a graduate can move from secondary school into any Somali university.

2.2 Global Evidence on Education Governance, Finance, and Assessment

Globally, research on education systems treats governance, financing, and assessment as interdependent drivers of system performance and sustainability. Strong governance frameworks tend to produce better learning outcomes and more sustainable systems, largely because they ensure resources are used efficiently and accountably [1]. Adequate, equitably distributed financing is necessary but not

sufficient for quality education; its effectiveness ultimately depends on how consistently it is managed and monitored [2]. Public sector theory has moved in a similar direction, shifting from narrow “new public management” models focused on efficiency and control [3] toward broader accounts of governance as a distributed, multi-actor process in which formal authority, capacity, and legitimacy interact [4, 5]. Systematic reviews of this literature confirm that educational governance remains theorized in fragmented ways across accountability, decentralization, and global policy scholarship, with comparatively little synthesis focused on fragile or transitional state contexts [5].

A related body of work addresses assessment and certification systems more directly. Examination reform is increasingly understood not as a narrow technical exercise but as a governance instrument: national examinations define what counts as achievement, and their credibility rests on consistent administration and grading across the jurisdictions that use them [6]. Continental initiatives such as the African Union’s move toward harmonized learning assessment frameworks reflect a wider recognition that fragmented, non-comparable examination data undermines both accountability and the regional mobility of credentials, reinforcing the link between certification harmonization and public trust (cf. [7], on system resilience).

2.3 Regional and Comparative Fragile State Evidence

Research on fragile and post-conflict states offers useful comparative grounding for interpreting Somalia’s experience. Decentralizing education governance in low and middle-income settings does not automatically improve outcomes; it can just as easily widen disparities where local administrative capacity and resources are uneven, a pattern documented across several country contexts [8]. Place-based governance arrangements can strengthen responsiveness to local needs, but only where sufficient capacity and coordination mechanisms exist to prevent fragmentation [9]. In higher education specifically, fragile and conflict-affected contexts face structural barriers to achieving Sustainable Development Goal 16’s peace, justice, and strong institutions agenda, with credential recognition and institutional trust recurring as persistent bottlenecks [10].

Comparative post-conflict cases reinforce these dynamics. In Rwanda, centralized governance reforms after 1994, combined with sustained political commitment, rebuilt education institutions and gradually improved equity and access, though scholars caution that Rwanda’s top-down model reflects a specific authoritarian developmental bargain that is not easily transferable elsewhere [11, 12]. Taken together, these cases suggest that the relationship between decentralization, governance capacity, and system credibility is conditional rather than automatic, a pattern consistent with what this study’s data show for Somalia’s federal examination system.

2.4 Somalia Specific Research

Somalia specific literature has grown substantially since 2019 and converges on governance and coordination as the central constraint on education system performance. Somalia's decentralized structure delegates education responsibilities to Federal Member States, which vary widely in institutional capacity, resulting in policy inconsistency and unequal access to resources [1]. Structural equation modeling of Somalia's post-conflict education sector finds that governance quality strongly predicts both financing effectiveness and equitable access, and that equitable access, in turn, predicts system sustainability, an empirical confirmation that governance, not funding alone, is the binding constraint [1, 2]. Broader work on Somalia's political economy similarly finds that weak governance and social cohesion compound resource and human development constraints [13].

Research on Somalia's federal architecture helps explain why examination governance in particular is difficult to harmonize. Somalia's federal project, adopted in 2004 and implemented from 2012, remains contested in practice: federal member states dispute the division of competencies with the Federal Government, and implementation of national standards is uneven across states with very different administrative histories and capacities [14]. Sector-specific analyses of Somalia's education governance similarly call for a clearer legal division of competencies between the Federal Government and the Federal Member States, and for consensus-based coordination mechanisms, as prerequisites for a unified national education, and by extension examination, system [15]. Studies of specific sub-sectors, including social work education [16] and higher education [17, 18, 19], document the same pattern: fragmented governance producing inconsistent quality assurance across the country. Somalia's wider state-building trajectory, supported by public finance and federalism reforms since the mid 2010s, has aimed explicitly at building government legitimacy and citizen trust through service delivery, including education [20], a framing directly relevant to how the examination system's credibility functions as a marker of state legitimacy in this study.

The examination system's own governing texts add direct evidence of this coordination difficulty. Somalia's National Examination Office describes drafting a unifying policy framework across four successive versions between May 2018 and October 2021, with earlier drafts shared internally and with sector stakeholders before the final version was issued in December 2021 as the reference document for examination policy, legal basis, and procedure nationwide [21]. An accompanying regulation, issued the same month, sets out the operational detail — staff eligibility and vetting, exam security, budgeting cycles, question setting standards, and grading protocols — needed to implement that framework [22]. Both documents trace their authority to the 2017 Education Act, which assigns the Ministry sole responsibility for assessing all levels of schooling and requires every student completing a schooling cycle to sit a state-administered examination [22].

That a unifying framework took three years and four drafts to finalize, six years after the examination system's 2015 relaunch, fits the fragmentation this paper's introduction describes: the coordination instruments arrived only after the system was already operating at national scale. Yet the eventual success and continuity of this system under these challenging conditions owe much to long-term leadership stability within the Department of Examinations. Between 2015 and 2025, the department

was managed by only three directors, an administrative continuity underlined by one director's eight-year tenure, compared with the inaugural director's three-year term, and by the third director's ongoing tenure sustaining that same institutional stability.

The broader coordination environment, by contrast, remained fragile. The Federal Government's own sector analysis reaches a parallel conclusion from a different vantage point, identifying uneven institutional capacity across Federal Member States and weak central regional coordination as structural constraints on service delivery across the education sector, examinations included [23].

2.5 Synthesis and Link to the Present Study

Read together, this literature situates Somalia's national examination system at the intersection of three research areas that have only recently been integrated: education governance under decentralization [1, 8], certification and assessment harmonization [6], and fragile state institutional rebuilding and legitimacy [10, 14, 24]. Existing Somalia specific research has established that governance quality drives financing effectiveness and equitable access [1], and that federal state coordination remains structurally unresolved [14, 15], but no published study has yet examined a decade of candidate-level national examination data to test these governance and harmonization claims empirically. The conceptual and theoretical framework developed in Section 2.6, together with the methodology in Section 3, make these relationships explicit before the study's methodology and empirical results are presented.

2.6 Conceptual and Theoretical Framework

2.6.1 Narrative Explanation

This study conceptualizes Somalia's national examination system as a governance instrument whose credibility depends on the interaction of four elements: institutional reform, certification harmonization, federal central coordination, and public trust, all embedded within the wider process of post-conflict state-building. Institutional reform the expansion of examination centers, schools, and administrative structures documented in Section 4 supplies the operational capacity that makes a national examination possible at scale. Certification harmonization, meaning consistency of grading, terminology, and procedure across Federal Member States, converts that operational capacity into a credible, comparable credential. Federal central coordination determines whether harmonization can be achieved at all, since Somalia's constitutionally concurrent education powers require the Federal Government and Federal Member States to agree on shared standards [14, 15]. Assessment credibility and public trust are the outcome variables: what a population and its institutions gain, or fail to gain, when the first three elements function well or poorly. Because Somalia is a post-conflict state, all four elements operate under the added constraint of state legitimacy; examinations are not only educational instruments but also visible, high-stakes demonstrations of the state's capacity to administer a uniform national process [10, 24].

The framework treats these relationships as cyclical rather than strictly linear. Institutional reform enables certification harmonization, but harmonization also requires federal central coordination that operates independently of administrative capacity. A state can run many examination centres (institutional reform) while still grading inconsistently across regions (a harmonization failure), which is exactly the pattern this study's data show for Banadir relative to other Federal Member States (Section 4.3). Coordination and harmonization jointly determine assessment credibility and public trust, and trust in turn feeds back into state legitimacy, shaping the political will available for further reform and coordination. This feedback loop is why the study reads Somalia's decade of examination data as evidence of a system still in transition, rather than one that has completed its reform trajectory.

2.6.2 Conceptual Framework Diagram

Fig. 1 presents the conceptual model as a causal pathway diagram, showing how institutional reform, certification harmonization, federal central coordination, assessment credibility and public trust, and state legitimacy interact within Somalia's post-conflict context.

Fig. 1 Conceptual framework linking institutional reform, certification harmonization, federal central coordination, assessment credibility and public trust, and state legitimacy in Somalia's post-conflict examination system

In Fig. 1, solid navy arrows represent enabling relationships confirmed by the study's data (for example, growth in examination centres enabling a larger national candidate pool), while the labelled arrow between Certification Harmonization and Federal Central Coordination represents a bidirectional dependency: harmonization requires coordination, and demonstrated harmonization strengthens the case for further coordination. The feedback arrow from State Legitimacy back to Institutional Reform captures the study's central interpretive claim: public trust generated by a credible examination system can, over time, expand the political and administrative space for further reform, while persistent harmonization failures, such as those observed for Banadir's pass rate volatility, constrain it.

2.6.3 Variables and Relationships

The framework specifies five variables and four primary relationships. The variables are: (1) Institutional Reform, operationalized here through examination Centre and school counts (Table 7); (2) Certification Harmonization, operationalized through cross FMS pass rate consistency and outcome terminology consistency (Tables 2 and 4; Section 4.1); (3) Federal Central Coordination, operationalized through the geographic and FMS coverage of the examination system, including the presence or absence of Puntland, Somaliland, and the emerging Northeast administration (Table 4); (4) Assessment Credibility and Public Trust, treated as a latent construct inferred from the stability and consistency of outcomes rather than measured directly, consistent with its treatment as a latent governance outcome in comparable Somalia research [1]; and (5) State Legitimacy, treated as the broader post-conflict context within which the other four variables operate [10, 14]. The primary relationships run as follows: Institutional Reform → Certification Harmonization (capacity enables but does not guarantee

standardization); Certification Harmonization ↔ Federal Central Coordination (mutually reinforcing); [Harmonization + Coordination] → Assessment Credibility and Public Trust; and Assessment Credibility and Public Trust → State Legitimacy, with a feedback path back to Institutional Reform.

2.6.4 Theories Used

This study draws on five complementary theoretical traditions. First, education governance theory holds that the quality of governance structures — their transparency, accountability, and capacity for stakeholder coordination — shapes whether education policy is implemented effectively and equitably [1, 4]. Second, institutional theory, in its historical and sociological variants, explains how organizations and systems such as national examination boards develop routines, legitimacy, and durability over time, and why institutional change in fragile states tends to be incremental and path dependent rather than immediate [24]. Third, public administration theory, spanning classical bureaucratic models and the more recent critique of narrow "new public management" approaches [3], provides the vocabulary for analyzing centralization, decentralization, and coordination failures of the kind observed between Somalia's Federal Government and its Federal Member States [8, 9]. Fourth, assessment and certification theory addresses the conditions under which examination results function as trustworthy, comparable signals of achievement, and identifies standardization and harmonization as prerequisites for certificate credibility [6, 7]. Fifth, state-building and legitimacy theory in fragile contexts explains why visible public services such as national examinations carry legitimacy functions beyond their technical purpose, since their consistent delivery is one of the clearest signals citizens have of state capacity [10, 14, 20].

Table 1 below summarizes each theory, the tradition it originates from, who currently applies it (including its application in this study), and the specific empirical pattern in this study's data that justifies its inclusion; no single theory could fully explain these patterns on its own.

Table 1. Summary of theoretical traditions used in this study, their origins, current application, and empirical justification.

Theory	Originally Developed By	Currently Applied By / In This Study	Empirical Justification in This Study
Education governance theory	Public administration scholars studying transparency, accountability, and coordination in policy delivery	Asaduzzaman & Virtanen [4]; Nor [1], applied here to Somalia's federal examination governance	Accounts for why FMS with different institutional capacities produced different pass rate patterns over the same decade (Section 4.3)
Institutional theory (historical/sociological)	Historical and sociological institutionalist scholars explaining organizational routine, legitimacy, and path dependence	Wong [24], applied here to Somalia's National Examination Office	Explains the near-linear, incremental growth in examination centres and schools (Section 4.5) as institutional accretion rather than a single reform event
Public administration theory	Hood [3], critiquing narrow “new public management” models of centralization and control	Kameshwara et al. [8]; Greany [9], applied here to Federal Government-FMS coordination	Interprets the Banadir versus other FMS pass rate gap as a coordination and standardization problem rather than a performance problem
Assessment and certification theory	Scholars of examination validity, standardization, and credential trust	Giacomazzi et al. [6]; Borazon & Chuang [7], applied here to Somalia's certificate harmonization	Justifies treating persistent near-ceiling pass rates in several FMS as a grading consistency signal rather than a substantive ability finding
State building and legitimacy theory	Scholars of fragile and post-conflict state legitimacy through service delivery	Milton [10]; World Bank [20]; Dahir & Sheikh Ali [14], applied here to Somalia's post-2015 state rebuilding	Explains why gaps in federal reach, such as the continued absence of Puntland and Somaliland from the dataset, matter for governance analysis

2.6.5 Integration with the Study

Together, these theories generate the study’s central interpretive claim: that Somalia’s national examination system illustrates how exam systems contribute to state legitimacy by functioning as one of the most visible, population-wide services a post-conflict state can deliver consistently, or fail to deliver consistently, each year [10, 24]. They also explain how certification harmonization supports trust and mobility. A harmonized certificate is portable and credible across regions and, by extension, across further education and employment markets, while an unharmonized one is not, regardless of how many candidates it reaches [6, 7]. And they explain how governance structures shape exam consistency: where federal-state coordination is weak, as public administration and decentralization theory predict,

examination administration and grading will diverge even as overall system capacity expands [3, 8, 9]. This integrated theoretical position is what allows the Results and Discussion (Section 4) to be read not merely as a description of Somalia's examination statistics but as empirical evidence about the state of institutional reform, certification harmonization, and governance coordination in a post-conflict federal system.

3. Materials and Methods

3.1 Research Design

This study uses a mixed-methods desk review of secondary data, combining a qualitative review of policy and institutional documents with descriptive quantitative trend analysis of the candidate-level examination dataset. This method fits the goal of reviewing existing evidence, tracking changes over time, and understanding the policy and institutional developments that shaped Somalia's exam system from 2015 to 2025. A large language model (Claude, Anthropic) was used during manuscript preparation to assist with language editing, text restructuring, and formatting of statistical tables derived from the author's own dataset; it was not used to generate data, analysis, or interpretive claims (see the Generative AI Statement).

3.2 Data Sources

The study draws on secondary data from the following categories of sources:

- Official Ministry of Education examination records.
- National examination reports and annual statistical summaries.
- Education sector policy documents and reform papers.
- Published journal articles, research reports, and assessments.
- Relevant institutional and development partner reports.

Table 2
Data sources used in this study, by category, with their specific role in the analysis (provided for replicability).

Source Category	Specific Documents / Records Used	Role in This Study
Official examination records	MoECHE candidate-level Class 12 examination dataset, 2015–2025 (297,410 records)	Primary quantitative evidence for Tables 1–5 (trends, FMS comparison, gender, subjects, administrative capacity)
National examination policy and regulation	National Examination Policy Framework [21]; National Examination Regulation [22]	Establishes legal basis, procedure, and governance structure discussed in Sections <link rid="Sec6">2.4</link> and 4
Sector policy and reform analysis	Federal Government of Somalia & UNESCO IIEP-Dakar [23] sector analysis; Sidra Institute [15] governance report	Contextualizes federal-FMS coordination challenges (Sections 2.4, 4.11)
Peer-reviewed journal literature	Nor [1]; Nor & Raheem [2, 13]; Dahir & Sheikh Ali [14]; Kameshwara et al. [8]; and other sources listed in the References	Provides the theoretical and comparative evidence base for Section 2 (including Section 2.5)
Institutional and development partner reports	World Bank [20] state-building report; MoECHE administrative records and internal communications	Supports discussion of legitimacy, verification infrastructure, and administrative history (Sections 1, 4.11)

3.3 Document Review Process

Data were collected through a review of documents. The materials were sorted by year, topic, and relevance to the development of the examination system from 2015 to 2025, enabling tracking of reforms, challenges, and results over time and by theme. As part of this process, outcome labels were harmonized to a single Pass/Fail convention: the 2024 examination records used Somali language result terms in place of the English Pass/Fail labels used in every other year, and these were standardized for consistency before any trend or comparative analysis was carried out (see Section 4.1).

3.4 Data Analysis

The secondary data collected were analyzed using three methods:

- Descriptive trend analysis to show how the examination system changed over the study period.
- Content analysis to identify recurring themes, reforms, and lessons learned across documents.
- Comparative analysis to examine differences across years, regions, institutions, or examination cycles where data allowed.

3.5 Scope and Limitations

This study focuses only on Somalia's national exam system from 2015 to 2025 and uses only secondary data. It does not include interviews or field surveys. The findings therefore depend on the quality, completeness, and consistency of the documents and records reviewed.

4. Results and Discussion

4.1 Overview of Selected Tables

The analysis draws on a candidate-level dataset of 297,410 national Class 12 examination records covering 2015 to 2025, compiled from the official records of the Ministry of Education, Culture and Higher Education (MoECHE). Each record includes the candidate's sex, school, examination centre, region, Federal Member State (FMS), subject level scores across up to twelve subjects, an overall result (Pass/Fail), and a letter grade. Following the methodology outlined in Section 3, the dataset was screened, and six analytical tables were selected because they speak directly to the study's research questions: system level trends over time, disparities across FMS, participation and outcomes by sex, subject and curriculum change, and administrative scale up. Tables containing only candidate identifying information, such as names or roll numbers, were excluded because they contribute nothing to institutional reform, certification harmonization, or governance analysis.

4.2 Trend Analysis (2015–2025)

Table 3 sets out national candidate volume and pass rates for each examination year. Candidate numbers grew almost eleven-fold, from 3,522 in 2015 to 38,329 in 2025, pointing to substantial expansion in the reach and institutionalization of the national examination system since its reintroduction. The national pass rate followed a less consistent path: it began very high in 2015 (97.2%), declined steadily as the system scaled up and drew in a wider and more representative pool of schools and centres, fell to a low of 74.6% in 2020, then recovered to 92–97% in 2021–2023 before declining again to 84–85% in 2024–2025.

Table 3
National candidates and pass rate, 2015–2025

(Source: MoECHE national examination records, 2015–2025 dataset).

Year	Candidates	Pass Rate (%)
2015	3,522	97.2
2016	11,573	87.3
2017	18,239	84.2
2018	25,675	78.0
2019	29,434	76.4
2020	33,727	74.6
2021	34,908	86.7
2022	33,468	96.6
2023	32,501	92.4
2024	36,034	84.1
2025	38,329	85.4

Two turning points stand out. The first spans 2018–2020, when candidate numbers rose sharply while pass rates fell to their lowest point of the decade, a decline driven by a combination of administrative and external shocks rather than any single cause. In 2019, a national exam leakage prompted MoECHE to invalidate the compromised papers and administer are examination under considerably tighter security; the replacement exam was set at a higher level of academic difficulty and supervised under much stronger, militarized oversight to protect the integrity of the results. Over this same window, MoECHE upgraded the overall quality of test items and restructured the exam setting process, and for the first time the setting of national examinations was completed entirely within Somalia, establishing sovereign academic standards for the exam setting function itself. This period also coincided with the relocation of exam logistics and coordination to the secure perimeter of the Jeneral Kahiye Police Academy (2018–2024) and the broadening of exam coverage well beyond Banadir, which introduced more outcome variance as rural and newly integrated districts entered the dataset. The COVID 19 pandemic compounded these pressures in 2020, when prolonged school closures disrupted instructional time and left many candidates underprepared, closing out the first turning point. The second turning point is 2024–2025, when pass rates and the mean composite score (“Average of Top 7”) both declined again, coinciding with the dataset confirmed introduction of new examined subjects (Section 4.4) and the opening of the National Examination Centre. Comparing the earliest years (2015–2017) with the most recent (2023–2025), the system has moved from a small, high pass rate cohort

concentrated in Banadir to a much larger, more geographically distributed, and structurally more rigorous national process, consistent with a shift from a fragmented system toward a more coordinated, standardized, and increasingly sovereign national assessment framework.

4.3 Regional Comparison (Federal Member States)

Table 4 compares the distribution of candidates and pass rates across FMS between the early period (2015–2017) and the recent period (2023–2025). Banadir's share of national candidates fell from 81.3% to 63.8% over the decade, while every other FMS increased its share: Southwest grew from 5.2% to 13.9%, Galmudug from 5.3% to 7.5%, Hirshabelle from 5.4% to 7.2%, and Jubaland from 2.8% to 5.2%. A previously unrepresented area referred to in this paper as Northeast, covering the Sool and Buhoodle district (Togdheer regions), appears for the first time in 2024 and accounted for 2.4% of candidates by 2023–2025.

Table 4
Candidate share and pass rate by Federal Member State, early vs. recent period. *Northeast (covering the Sool and Buhoodle district, Togdheer regions) first appears in the dataset in 2024. No Puntland or Somaliland records appear in any year 2015–2025.

Federal Member State	Share 2015 17 (%)	Share 2023 25 (%)	Pass Rate 2015 17 (%)	Pass Rate 2023 25 (%)
Banadir	81.3	63.8	85.1	81.9
Southwest	5.2	13.9	97.0	96.5
Galmudug	5.3	7.5	99.2	96.1
Hirshabelle	5.4	7.2	81.3	97.2
Jubaland	2.8	5.2	99.9	99.1
Northeast*	0.0	2.4	—	84.5

This shift represents a genuine broadening of federal examination coverage beyond the capital region and is consistent with a more coordinated national process emerging over the decade. At the same time, a persistent disparity in pass rates is visible: Jubaland, Galmudug, Hirshabelle, and Southwest register pass rates at or near ceiling (95–100%) in almost every year, while Banadir, the largest and most heterogeneous candidate pool, shows consistently lower and more variable pass rates (69–97% across the years in the underlying data). Because this pattern holds across a full decade and across very different cohort sizes, it is more plausibly read as a sign of uneven grading or administrative consistency across FMS examination structures than as a genuine and stable difference in student performance. Finally, the complete absence of Puntland and Somaliland from the dataset across all eleven years is a notable structural feature: the federally administered examination system reflected in these records does not extend to those two administrations, underscoring the federal regional coordination gap identified in the literature review.

4.4 Gender and Subject Patterns

Table 5 tracks female participation and the pass rate gap between sexes. The female share of candidates rose from 25.8% in 2015 to a peak of 41.8% in 2024, a near monotonic increase across the decade that points to expanding access for girls to Class 12 examinations. The gap between female and male pass rates was more volatile in the earlier years: female candidates outperformed male candidates by 7.7 percentage points in 2016, for example, while male candidates outperformed female candidates by up to 3 points in several years between 2018 and 2021. That gap narrowed to within 2.4 percentage points in every year from 2022 to 2025, suggesting that a more consistent and gender-neutral assessment process took hold in the second half of the decade.

Table 5
Female participation share and pass rate gap by sex, 2015–2025.

Year	Female Share (%)	Female Pass Rate (%)	Male Pass Rate (%)
2015	25.8	96.6	97.4
2016	26.2	93.0	85.3
2017	33.9	82.5	85.1
2018	35.5	77.3	78.4
2019	36.9	75.2	77.1
2020	37.7	73.9	75.1
2021	38.5	86.0	87.1
2022	40.0	95.9	97.0
2023	40.5	92.4	92.3
2024	41.8	82.7	85.1
2025	41.7	85.3	85.4

Table 6 presents the mean composite score (average of the top seven subjects) alongside the share of candidates achieving A range and D/E/F grades, and the proportion of candidates examined in two subjects added later in the decade. The composite average stayed relatively stable, between 66 and 72.5, from 2015 through 2023, before falling to approximately 62.5 in both 2024 and 2025. This decline coincides exactly with the dataset confirmed introduction of Information and Communication Technology (ICT) as an examined subject in 2024 (taken by 99.2% of candidates) and of Business Studies in 2025 (taken by 97.5% of candidates), concrete, data verified evidence of curriculum expansion consistent with the post 2019 curriculum reform. The share of candidates scoring in the D/E/F range rose from single digits in most prior years to 15.9% in 2024 and 14.6% in 2025, and science subjects (Chemistry, Physics) show the sharpest score declines of the period, suggesting that the transition to an

expanded, English medium curriculum placed particular strain on science instruction and assessment during the changeover. A full subject-by-subject breakdown of Chemistry and Physics scores is not reproduced here because it is not part of the six analytical tables selected for this study (Section 4.1); a disaggregated subject-level table can be produced from the underlying MoECHE dataset on request.

Table 6
Mean composite score, grade distribution, and new subject introduction, 2015–2025.

Year	Mean Composite Score	A range (%)	D/E/F (%)	ICT Examined (%)	Business Examined (%)
2015	70.3	2.5	1.2	0.0	0.0
2016	70.2	6.0	5.2	0.0	0.0
2017	70.0	8.5	7.3	0.0	0.0
2018	69.8	9.7	4.2	0.0	0.0
2019	67.0	5.9	8.8	0.0	0.0
2020	66.0	1.2	7.0	0.0	0.0
2021	69.0	4.8	1.5	0.0	0.0
2022	72.5	5.0	3.4	0.0	0.0
2023	69.2	5.8	7.6	0.0	0.0
2024	62.6	0.0	15.9	99.2	0.0
2025	62.5	0.3	14.6	97.8	97.5

4.5 Administrative Indicators

Table 7 reports two proxy indicators of administrative capacity: the number of distinct examination centres and the number of distinct schools represented among candidates each year. Both indicators expanded steadily and almost without interruption across the decade. Examination centres rose from 20 in 2015 to 138 in 2025, a nearly seven-fold increase, and represented schools rose from 247 to 832, more than a three fold increase. This sustained, near linear expansion reflects an examination system moving from an ad hoc, fragmented arrangement toward a larger, more institutionally embedded national process capable of administering examinations at many more sites each year.

Table 7
Growth in examination centres and represented schools, 2015–2025.

Year	Examination Centres	Schools Represented
2015	20	247
2016	58	329
2017	74	401
2018	79	472
2019	102	547
2020	110	611
2021	126	661
2022	114	639
2023	116	693
2024	136	792
2025	138	832

4.6 National Certificate Issuance and Harmonization

Table 8 reports the number of Somali National Secondary Certificates issued each year by the National Certification Office (Section 2.1). Unlike Tables 1–5, which cover only candidates in the post-2015 national examination dataset, this series reflects the Office's combined harmonization workload across three historical streams: current national examination passers, Puntland and Somaliland graduates converting their regional certificates into the national credential, and graduates of the pre-2015 private education networks whose records were progressively authenticated into the national framework. Because it spans three distinct populations rather than one, this series should not be read as a same-year issuance rate against Table 3's pass counts; it is instead the clearest available operational measure of the certification harmonization process itself.

Table 8
Somali National Secondary Certificates issued by the National Certification Office, 2015–2025

(Source: MoECHE National Certification Office, administrative records).

Year	Certificates Issued
2015	1,267
2016	3,264
2017	5,268
2018	6,265
2019	15,880
2020	14,179
2021	20,045
2022	12,888
2023	27,355
2024	25,885
2025	29,369
Total	161,665

Certificate issuance grew from 1,267 in 2015 to 29,369 in 2025, more than a twenty-three-fold increase, with 161,665 certificates issued cumulatively over the decade. Growth was not uninterrupted: issuance dipped in 2020 (14,179, down from 15,880 in 2019), coinciding with COVID-19 disruption to administrative operations, and again in 2022 (12,888, down from 20,045 in 2021), before recovering strongly to reach a decade high in 2025. This trajectory is consistent with the institutional reform and certification harmonization patterns documented elsewhere in this study (Sections 4.2, 4.5): the National Certification Office's capacity to convert examination outcomes, and historical certification records, into authenticated national credentials expanded substantially over the period, even as that expansion proceeded unevenly rather than on a smooth upward path.

4.7 Summary of Empirical Findings

Seven empirical patterns emerge from the dataset. First, candidate volume grew almost eleven fold over the decade, while national pass rates fluctuated rather than rising steadily, reflecting the tension between rapid scale up and consistent quality control. Second, examination coverage broadened geographically:

Banadir’s dominant share of candidates fell by roughly eighteen percentage points as Southwest, Jubaland, Galmudug, Hirshabelle, and the newly recorded Northeast area expanded their participation, though Puntland and Somaliland remain entirely absent from the federally administered dataset across all eleven years. Third, pass rate disparities between FMS have persisted for a full decade, with several states clustering near a 95–100% ceiling while Banadir shows markedly more variable outcomes, a pattern more consistent with inconsistent grading standards than with genuine performance differences. Fourth, female participation rose steadily from roughly a quarter to over two fifths of all candidates, and the gender pass rate gap narrowed and stabilized in the final four years of the series. Fifth, curriculum change is directly visible in the data: ICT was introduced as an examined subject in 2024 and Business Studies in 2025, and this same period shows the lowest composite scores and highest low-grade shares of the decade. Sixth, administrative capacity, measured by the number of examination centres and represented schools, expanded almost continuously throughout the period. Seventh, national certificate issuance grew more than twenty-three fold, from 1,267 in 2015 to 29,369 in 2025, reflecting a substantial expansion in the National Certification Office's capacity to convert examination outcomes and historical records into authenticated credentials, albeit with dips in 2020 and 2022 rather than uninterrupted growth. Together, these seven patterns provide the empirical, data grounded basis for the discussion that follows.

4.8 Interpretation of Trends

The eleven fold growth in candidates, set against a fluctuating rather than steadily improving pass rate, suggests that Somalia’s national examination system prioritized expanding access and coverage over the decade, at times trading away stable, predictable outcomes. This pattern is consistent with the broader claim that Somalia moved from a fragmented exam system toward a more coordinated and standardized national process: the data show real, measurable coordination more centres, more schools, more FMS represented but also show that this coordination is still maturing, as reflected in the pass rate swings around major transition points such as the 2018–2020 expansion and the 2024–2025 curriculum change.

4.9 Implications for Institutional Reform

The near continuous growth in examination centres (20 to 138) and represented schools (247 to 832) is direct evidence of institutional strengthening: MoECHE’s examination administration expanded its physical and organizational footprint almost every year. The opening of the National Examination Centre, together with the earlier consolidation of printing at a single secure site, appears in the data to correspond with the system’s growing ability to absorb much larger candidate volumes without administrative breakdown. At the same time, the composite score declines and rise in low grades seen in 2024–2025, coinciding with the introduction of ICT and Business Studies, illustrate a recurring dynamic in institutional reform: each expansion of scope, whether new subjects, new sites, or new regions, appears to bring a period of adjustment before outcomes stabilize. Policymakers should anticipate this pattern rather than read it as a sign of declining quality.

4.10 Implications for Certification Harmonization

The persistence of a wide pass rate gap between Banadir and the other Federal Member States across every year of the decade is the clearest empirical signal of a certification harmonization gap. If national standards, grading, and procedures were fully consistent across regions, sustained near ceiling pass rates of 95–100% in several FMS alongside a much more variable 69–97% in Banadir would not be expected to persist for ten years. This finding lends direct empirical weight to the argument, raised in the literature review, that harmonizing standards, grading, and procedures across regions is necessary for public and institutional trust in national certificates, and it suggests that certification harmonization, not administrative coverage alone, remains an unfinished part of the reform agenda. The more than twenty-three-fold growth in national certificate issuance over the same period (Section 4.6) shows that harmonization has advanced substantially on the administrative side, converting a growing volume of examination outcomes and historical records into authenticated national credentials, even as the underlying grading inconsistency documented above persists.

This is not simply an empirical curiosity. Unifying examination law and procedure across the federal and state levels, precisely so as to avoid inconsistency and error between administrations, is stated explicitly as a founding objective of the sector's 2021 policy framework [21]. The persistence of the Banadir gap a full decade after national exams resumed, and four years after that framework was issued, suggests the objective has so far been only partly realized in practice.

4.11 Implications for Governance and Coordination

The steady rise in the number of FMS represented in the dataset, together with the 2024 appearance of the previously unrepresented Northeast area, reflects an expanding reach of federal examination governance. Yet the complete absence of Puntland and Somaliland from the dataset across the full eleven year period is significant: it shows that the federally coordinated examination process captured in these records does not extend to the entire country, and that central regional coordination remains uneven across federal member states and administrations. This gap is consistent with the broader observation that Somalia's federal system combines uneven administrative capacity, resource disparities, and varying political alignment between the central government and federal states, a combination that makes it difficult to apply national examination standards consistently across all regions.

One recent development speaks directly to this coordination question. The National Examination Office has stood up an online verification portal, soneb.gov.so, through which results and certificates can be checked directly rather than relying on paper documents alone [21]. A digital, centrally administered verification channel is a governance instrument in its own right: it gives employers, universities, and other institutions a single, federally controlled point of reference for confirming a candidate's results, independent of which region issued the underlying paperwork. Whether this reduces the practical effect of the harmonization gap described above, or simply makes an already uneven certification landscape easier to verify without resolving the underlying inconsistency, is a question this dataset cannot answer directly. It marks, nonetheless, a concrete step toward the kind of centrally coordinated infrastructure that stronger governance would require.

4.12 Remaining Challenges

Four challenges stand out from the empirical record. The first concerns quality control during periods of rapid expansion: both the 2018–2020 growth phase and the 2024–2025 curriculum change phase coincide with the lowest pass rates and composite scores of the decade, suggesting that scale up and curriculum reform have repeatedly outpaced the system's capacity to maintain stable outcomes. The second is cross-regional consistency: the persistent Banadir versus other FMS pass rate gap suggests that grading and assessment procedures are not yet harmonized to the same standard nationwide. The third, and more fundamental, is the continued non participation of Puntland and Somaliland: both administer their own examinations and issue their own certificates entirely outside the federally coordinated system this paper examines, meaning the national dataset, however much it has expanded since 2015, still does not capture the full population of Somali examination candidates. The fourth concerns the scope of what the national examination actually certifies: candidates are assessed across twelve subjects, yet certification is based on a composite of only seven (the "Average of Top 7"), so close to half of what a candidate is examined on plays no role in the credential ultimately awarded. A fifth and broader challenge runs through all of these: coordination and administration across the system as a whole still need strengthening if the gains of the past decade are to be locked in.

4.13 Lessons for Fragile and Post Conflict Exam Systems

Somalia's ten years of exam data point to four lessons that other fragile or post-conflict countries could learn from as they rebuild their own national exam systems.

First, an exam system can grow fast even without much administrative capacity to back it up, but growth spurts need to come with real quality checks along the way, since every time Somalia's system expanded quickly, outcomes became less stable.

Second, technology can carry a system through that kind of growth, not just extra staff and paperwork. Somalia's exam office built a digital thread running the whole way from school-level data, through the exam results themselves, to the certificate a student finally holds. Students can now book an appointment to collect their certificate, and anyone can check that a certificate is genuine directly through the office's own verification system. That end-to-end digital chain is itself a lesson for other fragile states: rebuilding trust in an exam system does not have to wait on every other institution catching up. The right technology can do a lot of that trust building work on its own.

Third, having the groundwork laid in advance matters as much as running the exam itself. Over the years, the Ministry put together a full set of procedures, frameworks, and guidelines covering how examinations should be run, so each new exam cycle was not starting from scratch. It was working from rules already written down, tested, and refined from one year to the next.

Fourth, an exam system is only as strong as the people running it. The Ministry trained its examination staff to a high standard, and that mattered as much as any technology or procedure: well trained staff

kept the actual delivery of exams — setting papers, grading them, keeping them secure — steady even as everything else around the system kept growing and changing.

4.14 Policy Implications

The recommendations in Section 5 are derived directly from the empirical patterns identified in Section 4 and are intended to be read alongside them.

5. Recommendations

Taken together, the empirical patterns identified in Section 4 point to a shared reform agenda across every level of Somalia's examination system. MoECHE should establish a standardized, centrally audited grading and moderation protocol applied uniformly across all Federal Member States, given the decade long pass rate disparity between Banadir and other FMS documented in Table 4, and should build a monitored transition period with additional teacher preparation and moderation support into any future introduction of new subjects or curriculum components, given the composite score decline observed immediately after the 2024–2025 introduction of ICT and Business Studies. Closely related, MoECHE should review whether the current seven subject composite continues to reflect the full breadth of what candidates are actually assessed on, since candidates sit twelve subjects while only seven feed into the final certificate. A phased pathway toward incorporating a larger share of examined subjects into certification would close a gap this study has identified but that current practice does not yet address.

On regional integration, MoECHE should formalize a transparent, time bound equivalency and conversion process for Puntland and Somaliland certificates, reducing the friction graduates from those regions currently face before entering universities elsewhere in the country, while pursuing longer term work toward bringing both regions fully inside the federally coordinated examination system. FMS Ministries of Education, particularly in states showing near ceiling pass rates each year, should take part in joint, cross FMS moderation exercises with MoECHE to verify that grading standards are applied consistently rather than independently, and should continue the expansion of examination centres and participating schools evident in Table 7 while ensuring that newly added sites, including the Northeast area appearing from 2024, are integrated into the same national quality assurance and reporting framework as longer established FMS.

Finally, on infrastructure and institutional capacity, MoECHE should work toward making its online verification portal standard practice among universities and employers, and should integrate it with EMIS school-level data so the chain from enrollment through examination to certificate is verifiable end-to-end.

6. Conclusion

Over the past decade, Somalia's national examination system has grown from a small, geographically concentrated operation into a much larger and more coordinated national process. Candidate numbers rose almost eleven-fold between 2015 and 2025; examination centres expanded nearly seven-fold;

participating schools grew from 247 to 832, reaching federal member states and communities that had barely featured at the start of the period. Female participation climbed steadily throughout, narrowing the pass-rate gap between sexes to something closer to an even-handed process. None of this was purely administrative expansion, either — it came with a deliberate push toward sovereignty and rigor in how the exam itself is built and protected. After the 2019 leakage, MoECHE moved to a more secure, more difficult, and more tightly supervised re-examination, and for the first time question setting was handled entirely within Somalia, a sign of institutional maturity that outlasted the disruption that prompted it. Behind all this sits a steadily accumulated body of procedures and guidelines, meaning each new exam cycle builds on established rules rather than starting from scratch, plus a trained examination workforce whose consistency has kept exam delivery steady even as coverage and complexity have grown. Digitally, an online verification portal and appointment-based certificate collection have started giving Somalia's certificates a kind of centrally verifiable identity that paper documents alone never could. National certificate issuance itself grew more than twenty-three-fold over the decade, from 1,267 in 2015 to 29,369 in 2025, direct evidence that the National Certification Office's capacity to turn examination outcomes and historical records into authenticated credentials expanded right alongside the exam system itself.

That progress is real, but it is incomplete in three specific ways. First, a decade-long pass-rate gap between Banadir and the other federal member states has persisted despite a single grading standard applied nationwide, proof that harmonizing outcomes across regions is a different task from harmonizing the rules on paper, and one that broader coverage alone has not solved. Second, Puntland and Somaliland still run their own examinations entirely outside this federally coordinated system, so their graduates must convert their certificates before entering any university elsewhere in the country, a reminder that “nationally recognized” and “nationally interchangeable” are not yet the same thing in Somalia. Third, the national certificate itself still rests on a composite of just seven subjects out of the twelve a candidate actually sits, leaving a substantial share of what students are examined on absent from the credential they ultimately receive. Together, these gaps point toward a clear next phase of reform: standardized, centrally audited moderation across federal member states; a pathway for bringing Puntland and Somaliland fully into the national system; and a review of how certification reflects the full breadth of what candidates are actually examined on. Beyond Somalia, this decade offers a broader lesson for fragile and post-conflict states rebuilding their own examination systems: rapid growth in coverage is achievable even under real constraints, and sovereignty, security, and digital trust infrastructure can be built alongside that growth rather than bolted on afterward. Turning a larger system into a fully harmonized, universally recognized one, though, takes sustained and deliberate attention in its own right. Somalia's national examination system has made real, measurable progress since 2015; the task for the next decade is closing the gaps in coverage, harmonization, and certification scope that this progress has not yet reached.

What this study adds is the first evidence-based, decade-long account of Somalia's post-2015 examination system built on a 297,410-record candidate-level dataset rather than policy narrative alone, and a demonstration of how institutional reform, certification harmonization, and governance

coordination actually interact in a fragile, federal, post-conflict setting. For other states rebuilding examination systems after conflict, the lesson here is concrete: sustained institutional coordination, reliable administrative data, and deliberate attention to certification harmonization, not just expanded coverage, are what turn rapid post-conflict growth into a system that is both credible and built to last.

Declarations

Data Availability Statement

The datasets analyzed in this study consist of examination records maintained by the Federal Government of Somalia's Ministry of Education, Culture and Higher Education (MoECHE). These records are not publicly available due to third party data sharing restrictions. Requests to access a de-identified version of the dataset may be directed to the corresponding author.

Ethics Statement

This study analyzed secondary, de-identified administrative examination records and did not involve direct research with human participants; no candidate names, roll numbers, or other identifying information were used in the analysis. The dataset was accessed under the author's official role in MoECHE's EMIS Unit and Examinations Directorate, and its use for this study was authorized by the Examinations Directorate as part of routine administrative data analysis. Because the study involved no interaction with human subjects and used only anonymized institutional records, it did not require review by a human subjects ethics committee under MoECHE policy; authorization for data use was administrative rather than a formal IRB style review.

Author Contributions

S.Y. Mohamed conceived and designed the study, curated and analyzed the data, interpreted the findings, and wrote the original draft. S.Y. Mohamed also reviewed and edited the manuscript and approved the final version for submission.

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Competing Interests

The author declares no commercial or financial conflicts of interest. The author is employed within MoECHE's EMIS Unit and Examinations Directorate, which administers the examination system studied; this affiliation enabled data access but did not influence the study's design or conclusions.

Generative AI Statement

During preparation of this manuscript, the author used Claude (Anthropic; https://www.anthropic.com), a large language model, to assist with language editing, text restructuring, and formatting of statistical tables derived from the author's own dataset. The tool was not used to generate original data, statistical results, citations, or interpretive claims: all figures, statistics, and citations in this manuscript were produced and verified directly by the author from the underlying MoECHE examination dataset and from published sources. The author reviewed and edited all AI-assisted text and takes full responsibility for the accuracy, originality, and integrity of the manuscript. No generative AI tool is credited as an author, and no generative AI tool was used to create or modify any figure or image in this manuscript.

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Figures

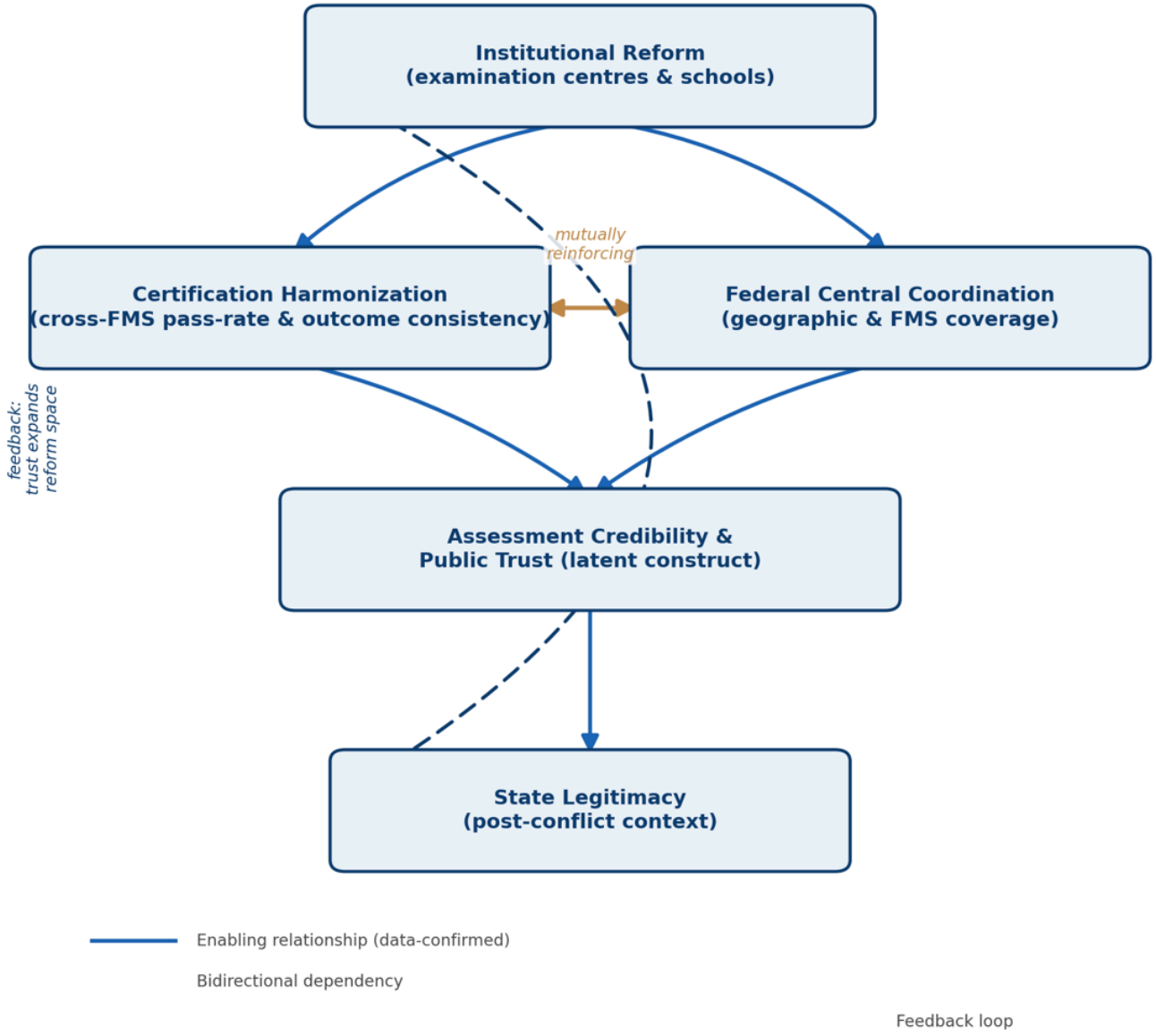


Figure 1

Conceptual framework linking institutional reform, certification harmonization, federal central coordination, assessment credibility and public trust, and state legitimacy in Somalia's post-conflict examination system

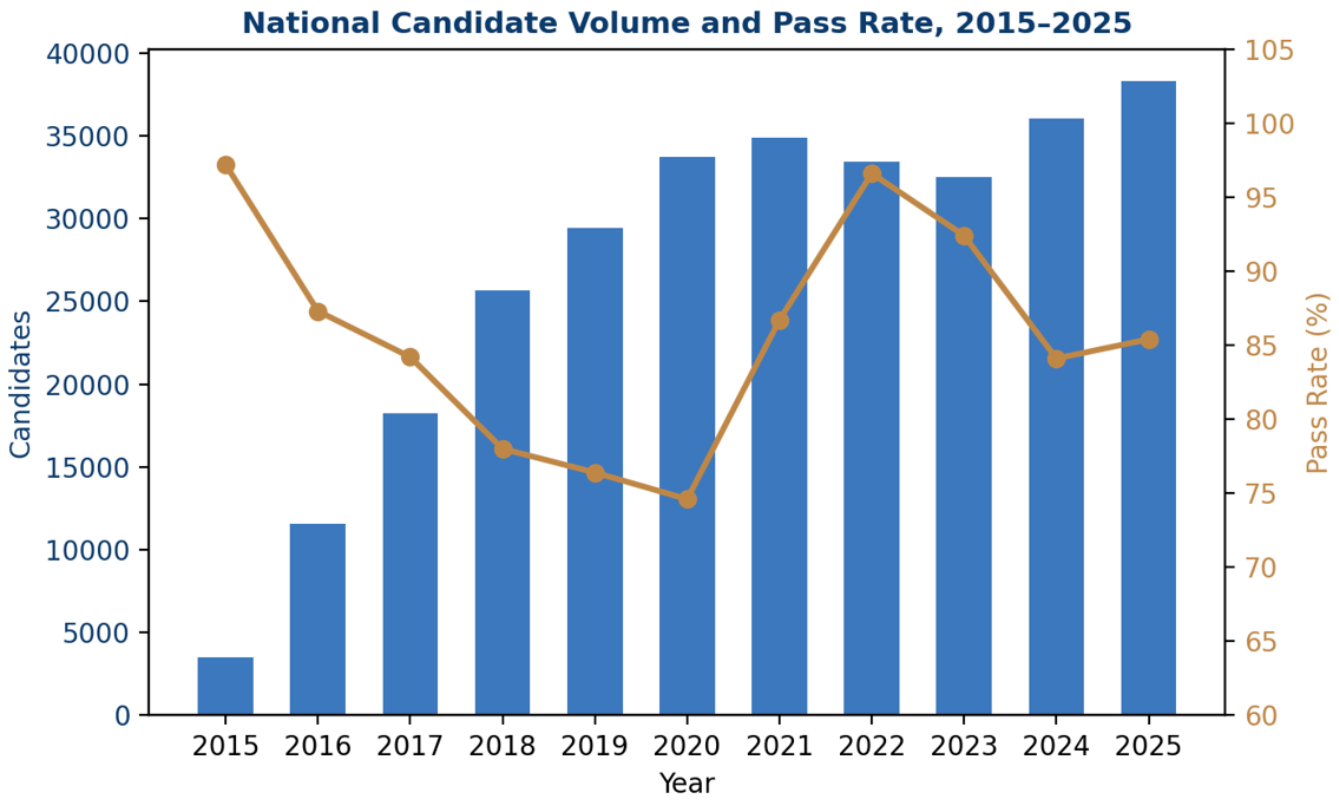


Figure 2

National candidate volume (bars) and pass rate (line), 2015–2025 (Source: MoECHE national examination records dataset)

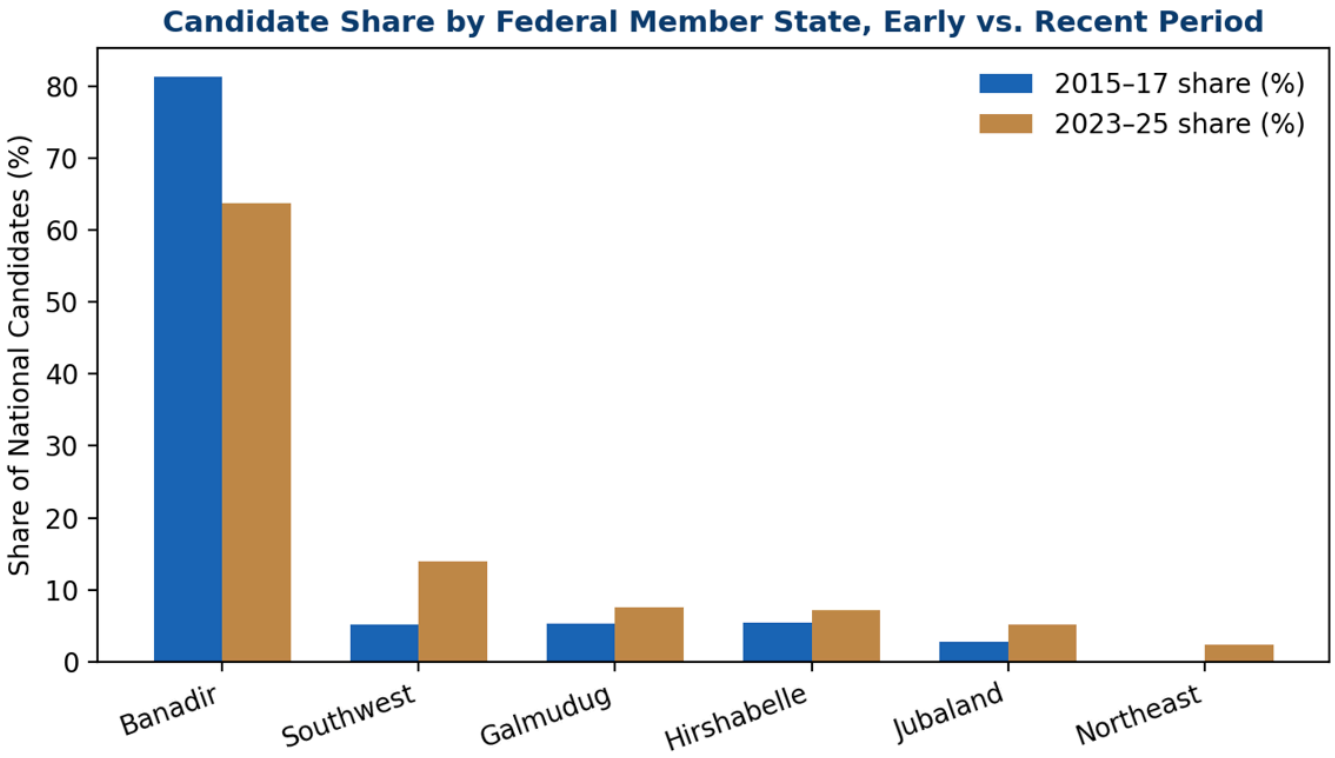


Figure 3

Candidate share by Federal Member State, early (2015–17) vs. recent (2023–25) period (Source: MoECHE examination dataset; see Table 4)

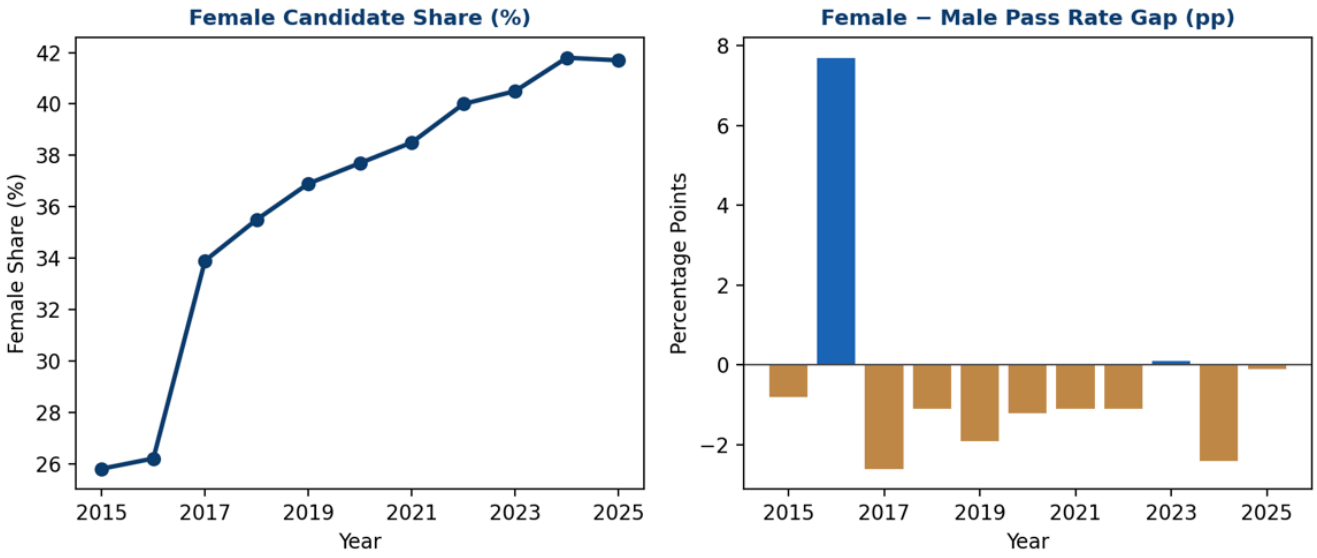


Figure 4

Female candidate share and the female-minus-male pass rate gap, 2015–2025 (Source: MoECHE examination dataset; see Table 5)

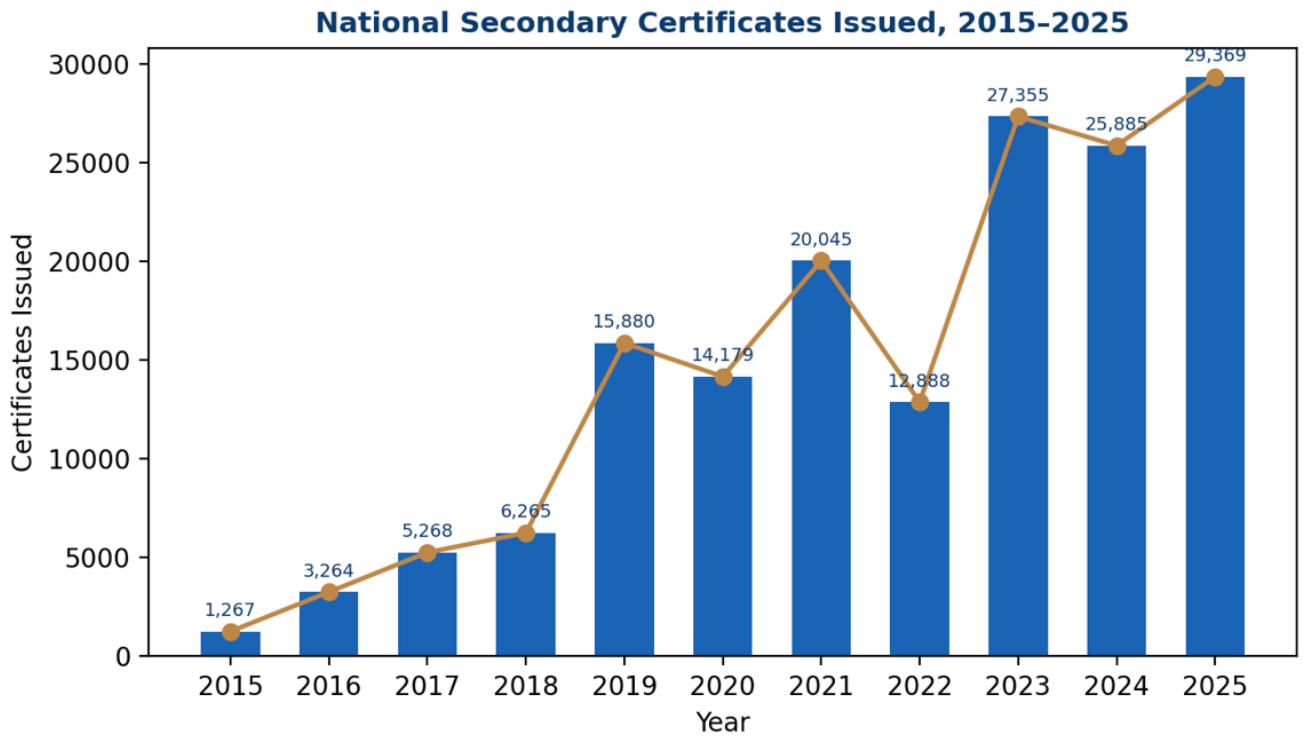


Figure 5

Somali National Secondary Certificates issued by the National Certification Office, 2015–2025 (Source: MoECHE National Certification Office, administrative records)

Supplementary Files

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- Appendix.docx