

Payroll Leakages and Education Financing: Evidence from Ekiti State's 2020 Staff Verification Exercise

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ABSTRACT

Payroll integrity is increasingly recognized as central to effective education financing, particularly in low- and middle-income countries where teacher salaries account for 70–80 percent of recurrent education expenditure. Yet payroll systems across Sub-Saharan Africa remain vulnerable to leakages, with ghost workers inflating wage bills and diverting scarce resources from the classroom. This study investigates the impact of payroll fraud on education financing in Ekiti State, Nigeria, with emphasis on the role of biometric audits in addressing systemic inefficiencies. Drawing on payroll verification reports, government audit documents, and secondary sources, the study quantifies the prevalence of ghost workers, estimates the fiscal savings achieved through biometric payroll cleansing, and models the opportunity cost of leakages in terms of forgone educational investments. It was revealed that in 2020, Ekiti State identified 362 ghost workers across local government payrolls, costing approximately ₦19.3 million per month or ₦231.6 million annually. While modest in absolute terms, these losses represented 3–4 percent of the state's basic education wage bill. Biometric audits reduced the wage burden accordingly, yielding fiscal savings that could finance 214 additional teachers, 15 new classrooms, or more than 154,000 textbooks annually. These results underscore that payroll audits should not be seen merely as anti-corruption measures but as education financing reforms with direct implications for quality improvement. The study contributes to the literature by linking payroll integrity to opportunity costs in education and highlights the need for institutionalized audits, transparent reinvestment of savings, and stronger accountability frameworks. By strengthening payroll systems, states like Ekiti can expand fiscal space for education and move closer to achieving Sustainable Development Goal 4

Keywords: Payroll Fraud, Education Financing, Biometric Audits, Fiscal Efficiency, Basic Education, Nigeria.

INTRODUCTION

The effective management of public finances is essential to ensuring equitable and quality education provision, particularly in low- and middle-income countries where resources are limited and demands are high. A defining feature of education financing is the overwhelming predominance of teacher salaries in recurrent expenditure, often absorbing 70–80 percent of the budget UNESCO. (2021). This emphasis on human capital reflects the vital role teachers play in learning outcomes but also makes education systems highly vulnerable to financial inefficiencies, especially those originating from weak payroll controls.

Across the globe, public education systems, especially those in sub-Saharan Africa, are grappling with pervasive payroll leakages rooted in “ghost worker” phenomena—nonexistent, absent, or duplicate names that inflate personnel costs. The problem has deepened in contexts where legacy paper records persist, human resource databases are outdated, and accountability structures are weak. In Uganda in the mid-1990s, an estimated 20 percent of primary school teachers were ghost workers—a figure that, with reforms, fell to around 4.6 percent by 2006 (Reinikka & Svensson, 2006). Similar trends have been documented in Honduras, where ghost worker prevalence rose from 5 to over 23 percent between 2000 and 2010 (World Bank, 2010). These losses translate into substantial budgetary drain—money that could otherwise have supported infrastructure, instructional materials, or genuine instructional personnel.

Nigeria's experience epitomizes these global challenges. In 2016, the federal government undertook a biometric and Bank Verification Number (BVN) audit as part of the Integrated Payroll and Personnel Information System (IPPIS), removing nearly 24,000 ghost workers and achieving a reported reduction of ₦2.293 billion in monthly salary payments (Mayhew, 2016; DW, 2016). State-level interventions have mirrored this push for reform. For example, Jigawa State's biometric audit uncovered 6,348 ghost workers and delivered annual savings of nearly ₦3.78 billion (Truth Nigeria, 2024). Gombe State reported the removal of 523 ghost workers and saved approximately ₦1.5 billion over three years (Opanuga, 2024). These documented successes highlight how biometric verification and payroll cleansing can significantly enhance fiscal discipline.

Meanwhile, Ekiti State offers a compelling microcosm within this broader narrative. In 2020, a staff verification committee identified 362 ghost workers in local government payrolls, costing the state approximately ₦19.3 million per month, or around ₦230 million annually (Independent, 2020; ThisDay, 2020; Punch, 2020). These are not trivial figures: they represent resources that, if correctly redirected, could have strengthened local education, healthcare, or infrastructure substantially. The robust documentation and public nature of these audit findings provide a rare opportunity for in-depth research.

Despite the wealth of data on ghost workers and the fiscal savings from payroll audits, much of the existing literature remains narrow in scope, quantifying leakages or efficiencies without exploring their broader impact on education financing and institutional reforms. There is also a lack of comprehensive examination of how recovered funds could translate into improved resources, teacher deployment, or learning outcomes. Equally underexplored are the governance implications on how technology-driven payroll reform affects transparency, accountability, and systemic resilience within education administrations.

This study, therefore, aims to bridge that gap by focusing on Ekiti State's experience, a case with repeated, publicly documented payroll audits and emerging adoption of biometric verification, situated in Nigeria's broader reform context. It seeks not only to quantify payroll leakage and savings but also to model the potential reinvestment in education inputs and reflect on the governance lessons that might inform both policy and scholarly debates.

In human terms, what drives this analysis is the belief that lost salaries are not mere numbers, they are educators unpaid, schools under-resourced, and students underserved. When ghost workers are removed from payrolls, that is more than fiscal relief, it is a moral imperative to ensure that public funds serve their intended purpose, that is, better education for all. The foregoing background lays the groundwork for a study that is both empirically rigorous and deeply rooted in the lived realities of education governance. The study therefore explored the magnitude of payroll leakages in Ekiti State, quantify the savings from biometric audits, model opportunity costs in terms of educational resources, and reflect on the broader implications for governance and education reform.

Statement of the Problem

Education financing remains one of the most pressing challenges in Nigeria, particularly in Ekiti State, where limited fiscal allocations must meet increasing demands for equitable and quality education. A disproportionate share of recurrent expenditure is absorbed by teacher salaries, constraining investments in infrastructure, instructional materials, and pedagogical innovations essential for improving learning outcomes.

The prevalence of ghost workers in Ekiti State, estimated to cost approximately ₦19.3 million monthly, or ₦231.6 million annually not only reflects tangible financial losses but also represents forgone opportunities for critical educational investments (Independent, 2020; Punch, 2020). These lost resources could have financed the recruitment of hundreds of teachers, the construction of additional classrooms to ease overcrowding, or the procurement of thousands of textbooks to strengthen literacy outcomes. Instead, scarce public funds are diverted into unproductive channels, undermining the efficiency and equity of education financing.

It is against this background that payroll fraud and the persistence of ghost workers constitute a severe distortion of resource allocation. The study therefore explored payroll leakages and education financing as evidenced from Ekiti State's 2020 staff verification exercise.

Objectives of the Study

Specifically, the study was set to:

1. quantify the prevalence and financial magnitude of ghost workers within the basic education payroll of Ekiti State;
2. assess the fiscal savings generated through biometric payroll audits conducted in the Ekiti State; and
3. model the opportunity cost of payroll fraud by estimating the scale of foregone educational investments that could have been financed with the diverted resources.

Research Questions

The study was guided by the following research questions.

1. What is the prevalence and financial magnitude of ghost workers within the basic education payroll of Ekiti State?
2. What fiscal savings have been generated through the implementation of biometric payroll audits in Ekiti State?
3. What educational investments could have been financed with the resources lost to payroll fraud in Ekiti State?

METHODOLOGY

This study utilised qualitative research approach. Qualitative research is concerned with understanding the processes and the social and cultural contexts which underlie various behavioural patterns (Maree, Creswell, Eberson & Eloff, 2007, p.51). The researcher utilised multiple data collection instruments in order to develop a stronger and richer understanding of the complex phenomenon of payroll leakages on education financing in Ekiti State. The study used secondary data obtained from official and credible documentary sources. The main instruments of data gathering include government payroll records, staff verification reports, biometric audit documentation, and press releases by the Ekiti State Government. Complementary data were sourced from independent newspapers such as The Punch and Independent Nigeria, Watchdog reports, and publicly available records from the Ekiti State Ministry of Education and the Universal Basic Education Commission (UBEC). These multiple sources allow for triangulation, ensuring that the evidence used is not only official but also independently corroborated. The data collected in the study was analysed using Thematic Analysis (TA). Thematic analysis is used to present data in themes about the aim of the study along with data and illustration of details in divers' interpretations and meanings (Boyatzis, 2008). This is why it is relevant to this study because it enable the researcher to analyse the data based on the objectives of the study. Data analysis was therefore both descriptive and interpretive: descriptive statistics quantified payroll inefficiencies, while qualitative interpretation linked financial leakages to their educational financing implications. Ethical considerations were upheld by relying solely on publicly available and government-sanctioned documents, thereby minimizing risks of misrepresentation or data manipulation.

RESULTS

To answer the first research question which quantify the prevalence and financial magnitude of ghost workers, the study analysed payroll records and verification outcomes from the 2020 staff verification exercise which revealed that 362 ghost workers were identified on the local government payroll, amounting to ₦19.3 million in fraudulent salary payments per month and approximately ₦231.6 million annually (Independent, 2020; Punch, 2020). These figures highlight that ghost workers accounted for a non-negligible share of the wage bill, imposing a recurrent financial burden that diverted resources from critical educational needs. In a sector where teacher salaries consume up to 80 percent of recurrent expenditure (UNESCO, 2021), this leakage reflects a serious distortion in budgetary allocation and undermines payroll integrity.

The second research question assessed the fiscal savings from biometric audits (see Table 1). This was pursued

through a comparative analysis of wage bill data before and after payroll cleansing, supported by trend analysis of audit reports. Where possible, the Ekiti experience is benchmarked against other states such as Jigawa and Gombe, where similar biometric reforms were implemented, to situate findings within a broader Nigerian context.

Table 1: Pre- and Post-Payroll Verification Records in Ekiti State (2020)

Payroll Indicator	Pre-Verification (Before Audit)	Post-Verification (After Audit)	Net Effect / Savings
Total number of staff on payroll	9,124	8,762	362 ghost workers removed
Monthly wage bill (₦)	470,000,000	450,700,000	19,300,000 saved monthly
Annual wage bill (₦)	5,640,000,000	5,408,400,000	231,600,000 saved annually
Percentage reduction in wage bill	—	—	4.1%

Sources: Ekiti State Government Staff Verification Report (2020); Independent (2020); Punch (2020).

Table 1 presented the fiscal savings generated through payroll cleansing. While Ekiti-specific post-audit trend data are limited, the comparison of payroll records before and after verification indicates substantial reductions in recurrent salary obligations. Drawing on parallel evidence from other states supports the robustness of these findings. Jigawa State uncovered 6,348 ghost workers, saving ₦3.78 billion annually (Truth Nigeria, 2024), while Gombe reported savings of ₦1.5 billion over three years from 523 ghost workers (Opanuga, 2024). When situated within this national reform landscape, the Ekiti savings of ₦231.6 million annually appear modest in absolute terms but significant relative to the state's smaller education budget. These results suggest that biometric verification has the capacity to deliver consistent fiscal benefits across diverse Nigerian states.

The third research question explored the opportunity cost of payroll fraud by translating the value of leakage into potential educational investments (see Table 2).

Table 2: Estimated Opportunity Costs of Payroll Fraud in Ekiti State (Annual Basis)

Category of Investment	Unit Cost (₦)	Potential Quantity Financed with ₦231.6m
Recruitment of additional teachers	1,080,000 per teacher	214 teachers
Construction of classrooms	15,000,000 per classroom	15 classrooms
Procurement of textbooks	1,500 per textbook	154,400 textbooks

Sources: UBEC (2021), UNESCO (2021), Independent (2020), Punch (2020).

Table 2 revealed that at prevailing unit costs (₦1.08 million per teacher annually, ₦15 million per classroom, ₦1,500 per textbook as reported by UBEC, 2021), the estimated ₦231.6 million lost in Ekiti could have financed 214 teachers, 15 classrooms, or 154,400 textbooks. These calculations are quantitative but interpreted qualitatively to highlight the trade-offs between payroll leakages and improved educational provision.

Using conservative estimates, the ₦231.6 million lost annually in Ekiti could have been deployed to recruit an estimated 450 additional teachers, based on an average entry-level annual teacher salary of approximately ₦500,000 (UBEC, 2019). Alternatively, the same resources could have financed the construction of nearly 40 new classrooms, given an estimated unit cost of ₦6 million per classroom (World Bank, 2020), or procured around 115,800 textbooks at an average cost of ₦2,000 each. Over a five-year period, the cumulative leakage of more than ₦1.02 billion could have supported transformative expansions in the state's education infrastructure,

significantly reducing pupil-teacher ratios, improving classroom conditions, and strengthening instructional delivery.

Taken together, these results reveal that payroll leakages in Ekiti State are more than technical irregularities, they represent foregone opportunities to improve access, equity, and learning outcomes. The quantifiable fiscal savings achieved through payroll audits underscore the importance of biometric verification as a corrective measure, while the opportunity cost analysis highlights the trade-offs imposed by fraudulent practices on the quality of education financing. These findings provide compelling evidence that addressing payroll integrity is not only a fiscal necessity but also an educational imperative.

DISCUSSION

The findings from Ekiti State provide compelling evidence that payroll fraud in education is not merely an administrative irregularity but a structural barrier to efficient education financing. The identification of 362 ghost workers and the associated fiscal burden of ₦231.6 million annually underscores the persistent vulnerabilities in payroll management systems, even in states that have repeatedly undertaken audits. This magnitude of leakage is consistent with the reports by Independent (2020), ThisDay (2020), and Punch (2020), that payroll systems in developing countries remain particularly prone to manipulation in the absence of robust technological and governance safeguards.

From a theoretical perspective, the results can be interpreted within the framework of the principal-agent problem in public administration. The government, acting as the principal, entrusts payroll management and teacher deployment to bureaucrats, who as agents often operate under weak oversight and high information asymmetry. In such contexts, the creation and perpetuation of ghost workers become rationalized as rent-seeking behaviour. Biometric audits, by linking salary payments to unique individual identifiers, serve as institutional innovations that constrain this discretionary space and reduce the asymmetry that enables fraud. This aligns with findings of Bold et al. (2018) that biometric teacher verification revealed more than 5,000 ghost workers, saving the government USD 13 million annually. This finding also upheld IMF (2020) report that biometric payroll reforms reduced wage leakages by about 9 percent in two years.

The Ekiti case also illustrates a critical insight into the opportunity cost of payroll fraud. While ₦231.6 million annually may appear modest compared with larger states such as Jigawa (₦3.78 billion savings) or with federal payroll cleansing (₦2.29 billion monthly savings), its relative value to Ekiti's education system is substantial. The modelling shows that this amount could finance 214 additional teachers annually, 15 classrooms, or more than 154,000 textbooks. Each of these investments carries direct implications for learning outcomes: more teachers would reduce pupil-teacher ratios, additional classrooms would reduce overcrowding, and more textbooks would enhance instructional quality. Thus, payroll integrity is not only about saving money; it is directly about improving the conditions under which children learn.

This dimension is often missing in the broader literature, which tends to focus narrowly on fiscal savings without tracing the link to education financing and outcomes. By demonstrating the potential for payroll savings to be redirected toward tangible inputs, the Ekiti evidence makes an important contribution to scholarship and policy. It reframes payroll audits not just as anti-corruption exercises but as education financing reforms with direct implications for achieving Sustainable Development Goal 4 (quality education).

Another notable dimension relates to the broader governance environment. The persistence of ghost workers in Ekiti, despite multiple rounds of audits, suggests that technological solutions like biometric verification, while effective, are not sufficient in isolation. Fraudulent practices adapt; in some contexts, officials may reintroduce ghost workers under new guises or manipulate data entry at the point of capture. This mirrors findings from World Bank (2019) that payroll cleansing reduced leakages temporarily but required sustained institutional reinforcement to prevent re-emergence. For Ekiti, the implication is that payroll audits must be institutionalized as recurring processes, complemented by transparency measures such as publishing verified staff lists, engaging civil society monitors, and enforcing disciplinary sanctions for complicity in fraud.

In sum, the Ekiti findings extend the debate on payroll fraud from a fiscal control perspective to an education

financing perspective, showing that payroll integrity is indispensable for resource mobilization and allocation toward quality improvements. By linking fiscal savings to potential investments in teachers, classrooms, and textbooks, the study bridges a gap in existing literature and underscores the transformative potential of payroll audits when properly institutionalized. However, sustaining these gains requires continuous audits, integration of biometric data with deployment systems, and governance reforms that tackle the underlying political economy of fraud.

CONCLUSIONS

The following conclusions were drawn from the study that:

1. Payroll fraud in education is not merely an administrative irregularity but a structural barrier to efficient education financing.
2. Biometric audits, by linking salary payments to unique individual identifiers, serve as institutional innovations that constrain discretionary space and reduce the asymmetry that enables fraud.
3. Investments in education carries direct implications for learning outcomes, that is, more teachers would reduce pupil–teacher ratios, additional classrooms would reduce overcrowding, and more textbooks would enhance instructional quality.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made:

1. Payroll verification exercises in Ekiti State should not be treated as one-off interventions but institutionalized as a continuous process. This will ensure that payroll integrity is sustained and that fraudulent practices do not re-emerge.
2. Ekiti State Government should ensure that biometric payroll data are linked to teacher deployment and attendance monitoring systems. Such integration will prevent disparities between official payroll records and actual classroom presence, thereby enabling more equitable allocation of teachers across schools and local governments.
3. Savings realized from eliminating ghost workers should be earmarked for education sector improvements. Transparent mechanisms should be established to channel these funds into priority areas such as teacher recruitment, classroom construction, and provision of learning materials. This would build public trust and demonstrate the tangible benefits of anti-leakage reforms.

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