



Influence of the Level of National Government Constituency Development Fund on Access to Education in Kajiado Central Sub-County, Kajiado County

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Abstract

Globally, the decentralization of funds has been ongoing as a way of evenly spreading development throughout the respective regions. The Government of Kenya has been praised by many in Africa and elsewhere for introducing the Constituency Development Fund (CDF), an innovative system of transferring part of central government revenues to the grassroots. Constituency Development Fund (CDF) fund has been in existence since 2003 and this warrants the need to examine its impact over time. This study examined the influence of NG-CDF level of funding on access to education in Kajiado Central Sub-County, Kajiado County. The study was guided by the Resource-Based Theory (RBT), which explains how organizations or systems achieve improved performance through effective acquisition, allocation, and utilization of valuable resources. A descriptive research design was adopted, targeting 161 respondents drawn from NG-CDF managers, committee members, opinion leaders, women leaders, youth leaders, and project officials. Data were collected using structured questionnaires and analyzed using descriptive statistics and simple linear regression. Findings showed a moderate level of effectiveness of NG-CDF education financing (composite mean = 2.33). Regression results indicated a statistically significant positive relationship between NG-CDF funding level and access to education ($\beta = 0.438$, $p < 0.001$), with funding explaining 37.5% of variation in access to education ($R^2 = 0.375$). The study concludes that NG-CDF funding improves access to education, although challenges in timely disbursement and retention outcomes limit its full impact. The study recommends improved



efficiency in bursary disbursement, strengthened targeting of beneficiaries, and enhanced stakeholder coordination to improve educational access outcomes.

Keywords: NG-CDF, Access to Education, Constituency Development Fund, Kajiado Central, Kenya, Devolved Funds

Introduction

Access to education remains a major development concern in Kenya, particularly among learners from low-income households, pastoral communities, and arid and semi-arid regions. Financial barriers such as school fees, inadequate learning resources, and limited household income continue to hinder school enrollment, retention, transition, and completion rates. In response, the Government of Kenya established the Constituencies Development Fund in 2003, later renamed the National Government Constituencies Development Fund (NG-CDF), to promote equitable grassroots development and improve access to essential public services such as education, health, and security. One of the key areas supported through NG-CDF is education financing through bursaries, construction of classrooms, support for special needs learners, and improvement of learning infrastructure (National Government Constituencies Development Fund, 2024).

The NG-CDF has increasingly become an important mechanism for supporting vulnerable learners who face financial hardship in accessing education. The fund allocates substantial resources annually to secondary schools, tertiary institutions, and special education programs across constituencies in Kenya. According to NG-CDF reports, approximately Ksh. 15 billion is allocated annually toward bursary programs benefiting more than one million needy students across the country. The fund has also supported the establishment of schools and technical training institutions aimed at increasing educational opportunities and reducing regional disparities in access to education (National Government Constituencies Development Fund, 2024).

Education financing plays a significant role in promoting educational equity and poverty reduction. Access to education improves literacy levels, employment opportunities, social mobility, and long-term economic development. However, many households in marginalized regions still struggle to meet educational costs despite the introduction of free primary and subsidized secondary education programs. Hidden costs such as uniforms, transportation, boarding fees, examination fees, and learning materials continue to affect school participation among economically disadvantaged learners. As a result, bursary schemes and educational assistance programs remain important interventions for improving educational access among vulnerable populations (Oketch et al., 2019).

The level of NG-CDF funding directed toward education significantly determines the extent to which needy learners benefit from bursaries and



educational support programs. Adequate funding enhances the ability of constituencies to support more students, improve educational infrastructure, and reduce dropout rates linked to financial constraints. Inadequate allocations, delayed disbursements, and increasing demand for bursaries may limit the effectiveness of the fund in addressing educational inequalities. Consequently, the amount of financial resources allocated to education through NG-CDF remains a major policy issue in Kenya's education sector (Mutegei et al., 2021).

In Kajiado County, access to education faces additional challenges associated with poverty, recurrent drought, long distances to schools, early marriages, and socio-cultural practices affecting school attendance. Many households in the county depend on pastoralism, which is highly vulnerable to climate variability and economic shocks. These conditions affect household income and the ability of families to finance education consistently. To address these challenges, NG-CDF bursary programs have supported thousands of students across constituencies in Kajiado County through financial aid aimed at reducing school interruptions and increasing educational participation among needy learners. Reports from constituencies within Kajiado indicate that bursary allocations have continued to support secondary, college, and university students from vulnerable backgrounds (Kenya News Agency, 2023; Kenya News Agency, 2026).

Kajiado Central Sub-County, like many semi-arid areas in Kenya, continues to experience educational access challenges linked to economic vulnerability and limited household resources. Although NG-CDF educational support programs have been implemented within the constituency, concerns still exist regarding the adequacy of funding levels in meeting the growing demand for educational support among needy students. Increasing school enrollment, rising educational costs, and expanding numbers of vulnerable learners place pressure on available NG-CDF resources. This creates the need to examine how the level of NG-CDF funding influences access to education within the sub-county.

The study on the influence of the level of National Government Constituency Development Fund on access to education in Kajiado Central Sub-County therefore seeks to contribute to policy and academic discussions on grassroots educational financing. The study provides insight into how funding levels influence educational opportunities among vulnerable learners and supports efforts aimed at strengthening equitable access to education and sustainable socio-economic development in marginalized regions.

Empirical Review

Influence of National Government Funds on Access to Education

Internationally, empirical research on the relationship between government education expenditure and school access has produced robust evidence that



sustained public funding is a critical determinant of enrollment outcomes, though the magnitude and mechanisms of effect vary across economic and institutional contexts. Beri, Cochrane, and Syed Fazlullah (2024) conducted a comprehensive panel data analysis covering 72 low- and lower-middle-income countries from 1990 to 2020, employing autoregressive distributed lag (ARDL) models to examine the long-term influence of public education spending on primary school enrollment. Their findings revealed that public expenditure exerts a significant, positive long-run impact on enrollment across the full sample, with specific sub-sample analyses confirming consistent effects in low-income countries, lower-middle-income countries, and sub-Saharan Africa. The study reported that a doubling of government expenditure in landlocked countries produced significant enrollment improvements, suggesting that resource endowments are particularly consequential in geographically disadvantaged settings. The authors concluded that sustained and efficient funding constitutes a cornerstone for achieving Sustainable Development Goal 4, and that the enrollment-spending nexus persists even under non-linear model specifications (Beri et al., 2024).

Complementing this macro-level evidence, the Education Finance Watch 2024 report by the World Bank and UNESCO provided cross-country distributional analysis of public education spending across twelve countries spanning low-income, lower-middle-income, and upper-middle-income categories. The report found that while government spending on primary education generally favored poorer households, spending on secondary and tertiary levels disproportionately benefited wealthier households, reflecting higher enrollment rates among affluent populations at advanced education levels. In South Asia, government spending per school-age child more than doubled between 2010 and 2022, rising from US\$218 to US\$515, yet the report noted that increased spending has been largely insufficient in bridging educational disparities between developed and developing nations or between wealthier and poorer sectors within countries. The analysis highlighted that in low-income countries such as Niger, even subsidized pre-primary education can impose financial burdens on low-income families due to ancillary costs, and that limited infrastructure and teacher availability in rural areas create quality gaps that undermine access gains (World Bank & UNESCO, 2024).

In the Europe, the OECD's Education at a Glance 2025 report examined expenditure trends in primary and lower secondary education across member and partner countries between 2015 and 2022, finding that most countries increased expenditure per student, though the scale of change varied widely depending on national economic conditions, demographic trends, and policy priorities. The report noted that increased spending per student does not automatically translate to better quality, as it may reflect the greater costs of operating small schools in rural areas, a finding with direct relevance to the dispersed settlement patterns in Kajiado Central. Bulgaria recorded the largest increase in expenditure per student (67%)



alongside the largest enrollment decline (-12%), while Estonia managed to boost per-student spending by 38% despite a 15% enrollment increase, demonstrating that demographic pressures and funding trajectories interact in complex ways (OECD, 2025).

Finally, in the United States, the National Center for Education Statistics (2024) reported that total expenditures for public elementary and secondary schools reached \$927 billion in 2020–21, averaging \$18,614 per pupil, with current expenditures accounting for 87% of the total. The data revealed a 13% real-terms increase in per-pupil spending from 2010–11 to 2020–21, but also documented significant interstate disparities, with Idaho spending \$11,686 per pupil compared to \$37,835 in the District of Columbia. The NCES findings underscored that capital outlay—which includes school construction and infrastructure—constitutes approximately 10% of total expenditures, a proportion that has direct implications for understanding how physical facility investments mediate access in under-resourced jurisdictions (National Center for Education Statistics, 2024).

Empirical studies in Africa have examined the specific mechanisms through which decentralized and centralized education funds influence enrollment, retention, and transition outcomes, with particular attention to infrastructure provision, bursary schemes, and governance challenges. Sichalwe and Namangala (2025) analyzed the effects of the Constituency Development Fund on education in Nchelenge District, Zambia, using a mixed-methods approach that integrated quantitative analysis of CDF expenditures with qualitative insights from school administrators, teachers, and local government officials. Their findings revealed that while CDF contributions to classroom construction, teacher housing, and learning materials had produced a 22.5% increase in school enrollment over five years, persistent challenges including delayed fund disbursement (reported by 37.7% of respondents), misallocation of resources (27.3%), and political interference (23.4%) significantly hindered overall effectiveness. The study concluded that strengthening oversight mechanisms, ensuring timely disbursement, and fostering community engagement were critical to maximizing CDF impact on educational access in rural districts (Sichalwe & Namangala, 2025).

In South Africa, the Development Bank of Southern Africa (2023) published the "Beyond the Gap" basic education report, which provided a decade-long analysis of school construction and maintenance funding from 2011–12 to 2020–21. The report documented that total infrastructure expenditure increased by nearly 50% from ZAR 8.7 billion to ZAR 12.8 billion over the period, with the Education Infrastructure Grant (EIG) accounting for approximately 70% of all infrastructure-related spending. However, the analysis revealed quasi-stagnation in real-term spending from 2015–16 onward, and noted that the equivalent value in USD consistently declined from its 2013–14 peak, creating escalating tensions between construction needs and fiscal constraints. The distribution analysis showed that



KwaZulu-Natal received the largest share (20%), followed by the Eastern Cape (18%), reflecting deliberate targeting of provinces with the most severe infrastructure backlogs, yet the report concluded that funding levels remained insufficient to eliminate the backlog of inadequate facilities (Development Bank of Southern Africa, 2023).

The Equal Education research report (2023) on "Schooling under Unusual Conditions" in South Africa provided further evidence on the infrastructure-access nexus, finding that learners in schools with poor infrastructure characterized by structural disrepair, temporary structures, and inadequate services were less likely to attend school daily, complete academic cycles, or continue their education in the long run. The report specifically documented that insufficient classroom infrastructure affects enrollment when schools reach full capacity or become overcrowded, leading to refused admissions that deprive children of their right to education. The study also found that inadequate sanitation facilities disproportionately affect female learners, with girls who have begun menstruation more likely to miss significant amounts of school when sanitation is poor or non-existent, highlighting the gender-differentiated impacts of infrastructure underfunding (Equal Education, 2023).

In Niger, the European Parliament's 2024 assessment of EU support for education documented that budget support contributions of EUR 15 million to the Education Sector Basket Fund in 2023, combined with broader commitments of EUR 99 million for 2021–2024, facilitated the enrollment of 580,000 primary and 57,000 secondary students between 2018 and 2021. The analysis emphasized that EU support was aligned with the government's education sector plan and focused on governance improvements including planning, school mapping, sector transparency, and scholarship allocation. The report noted that despite significant external financing, achieving universal access remained constrained by systemic governance challenges and the need for sustained domestic resource mobilization (European Parliament, 2024).

In Kenya, National Government Constituency Development Fund (NG-CDF) is a decentralized financing mechanism established by the Kenyan government in 2003 under the Constituency Development Fund Act, with the primary objective of mitigating regional development imbalances and empowering local communities to make expenditure choices aligned with their needs (Kimenyi, 2005). The fund was designed to channel approximately 2.5% of the national government's ordinary revenue directly to constituencies for development projects, with education emerging as one of its priority sectors. Following the promulgation of the 2010 Constitution of Kenya and the subsequent restructuring of government under devolution, the CDF was renamed the National Government Constituency Development Fund (NG-CDF) to distinguish it from county-level funds, and its legal framework was revised through the NG-CDF Act of 2015 and amended in 2016 to



enhance governance, transparency, and community participation in project selection and implementation (Kiragu, 2014; Muusya, 2019). The fund operates through constituency-level committees overseen by Members of Parliament, with project proposals originating from community-driven consultations. In the education sector, NG-CDF resources have been deployed toward three main interventions: the construction and expansion of physical infrastructure (classrooms, laboratories, libraries, and sanitation facilities); the provision of bursaries and scholarships to financially disadvantaged students; and the procurement of teaching and learning materials. These interventions are intended to reduce the direct and indirect costs of schooling, expand school availability in underserved areas, and improve the quality of learning environments, thereby enhancing access, transition, and retention rates in public schools (Nzuki, 2017; Rukwaro et al., 2017). The fund is particularly significant in marginalized regions such as Kajiado County, where arid and semi-arid conditions, pastoral livelihoods, and dispersed settlement patterns create acute barriers to educational access that centralized ministry budgets have historically failed to address adequately.

Nzuki (2017) conducted a qualitative multiple-case study in Yatta sub-county of Machakos County to explore the effects of CDF and the Free Secondary Education Policy (FSEP) on enrollment and dropout among secondary school-age children. Through semi-structured interviews with 14 purposefully selected participants including principals, deputy principals, and parents of bursary beneficiaries, the study found that CDF had contributed significantly to enrollment improvement through the establishment of new day schools that reduced schooling costs for low-income families. The research documented that student dropout had declined with both CDF and FSEP interventions, and that the establishment of day schools reduced the distance from home to school, making education more geographically accessible. However, participants identified significant gaps in bursary allocation processes, including lack of transparency, political influence, and inadequate targeting of the most deserving students, suggesting that fund levels alone do not guarantee equitable access without effective organizational exploitation (Nzuki, 2017).

Rukwaro, Olembo, and Ogeta (2017) carried out a descriptive survey in Githunguri Sub-County, Kiambu County, to establish the influence of CDF on access to secondary school education. The study sampled 20 public secondary schools from a total of 33, collecting data from 40 class teachers, 20 principals, and 320 students through questionnaires and interview guides. Their findings revealed that although CDF had improved school status through the construction of classrooms, laboratories, and dormitories, access remained low with the transition rate at 56.9% in 2014, significantly below the Ministry of Education's target of 70% by 2015. The study recommended that CDF should be used to establish more day schools than boarding schools because day schools are more accessible to poor families, a



finding directly relevant to the Kajiado Central context where boarding costs constitute a major barrier to secondary access (Rukwaro et al., 2017).

Mutegi, Otieno, and Gichira (2021) investigated the utilization of NG-CDF and its influence on transition to secondary education in Kirinyaga County, employing a descriptive research design with 19 public secondary schools, 19 principals, 247 teachers, and 12 CDF officials. Their findings revealed that NG-CDF utilization on teaching and learning resources, physical facilities, and school feeding programs, together with community perceptions of the fund, significantly influenced transition rates. The study documented a positive correlation between physical facilities and student transition, but also found that community perception of NG-CDF determined the number of bursary applicants, with not all eligible learners applying due to negative perceptions or lack of information. The authors concluded that improving community perception of the fund was essential to increasing allocation effectiveness and enhancing transition to secondary schools (Mutegi et al., 2021).

Kipchumba (2025) assessed the effects of CDF on school infrastructure in selected secondary schools in Nakuru County, using a cross-sectional methodology with 34 head teachers and 340 students. The study found that CDF was utilized to support development projects with direct social and economic impacts, with 82.4% of head teachers reporting that CDF had enabled the establishment of laboratory facilities leading to improved science performance, and 76.5% confirming that CDF had contributed to equipping school libraries with new textbooks. Correlation analysis at the 5% significance level revealed that the effects of CDF on school infrastructure yielded a correlation coefficient of $r(34) = 0.568$, $p = 0.000$; on student enrollment, $r(34) = 0.551$, $p = 0.000$; and on curriculum implementation, $r(34) = 0.590$, $p = 0.000$. The study recommended that all education sector stakeholders be involved in formulating policies governing CDF allocation, disbursement, and utilization to ensure optimal educational outcomes (Kipchumba, 2025).

Theoretical Review

Resource-Based Theory (RBT) was developed by Penrose's (1959) and it conceptualized the firm as a coordinated bundle of resources, but crystallized into its modern form through Barney's (1991) canonical article firm resources and sustained competitive advantage, which established the theory as a dominant strategic management paradigm (Wernerfelt, 1984). At its core, RBT posits that organizations are fundamentally heterogeneous in their resource endowments and that advantage derives from acquiring, controlling, and deploying resources that are valuable, rare, imperfectly imitable, and non-substitutable the VRIN criteria later refined by Barney and Clark (2007) into the VRIO framework, which added organizational exploitation as a necessary condition. Despite its prominence, the theory has faced sustained critiques regarding tautology and static reasoning, as



Priem and Butler (2001) argued that value and advantage are circularly defined, while Kozlenkova et al. (2014) noted its neglect of exogenous environmental factors, prompting refinements such as Helfat and Peteraf's (2003) dynamic resource-based view and Barney's (2007) VRIO extension (Barney, 2001).

Although rooted in private-sector strategic management, RBT translates meaningfully to the public sector in analyzing how National Government Constituency Development Fund (NG-CDF) levels influence access to education in Kajiado Central Sub-County. In this resource-scarce, arid and semi-arid context, where poverty, distance, and infrastructure deficits exclude vulnerable learners, the fund functions as a critical external resource channeled through government structures to overcome market and geographic failures. Applying an adapted VRIO logic, the study interrogates whether allocations are valuable in enabling classrooms, bursaries, and learning materials; rare relative to overwhelming need; imperfectly imitable by alternative local revenue; and whether the constituency is organized to exploit them effectively through transparent disbursement and monitoring. By framing NG-CDF as the strategic resource whose level determines the constituency's capacity to expand educational access, RBT provides a robust explanatory mechanism for why variations in fund levels should correlate with differences in enrollment, transition, and retention rates in this marginalized setting.

Methodology

The study adopted a descriptive research design since the data collected was mainly quantitative in nature. The design described the characteristics of variables as they existed without manipulating them. It allowed the researcher to examine the influence of National Government Constituency Development Fund (NG-CDF) funding levels on access to education in Kajiado Central Sub-County. The design also supported systematic collection and analysis of respondents' views on education financing and access outcomes.

The study was conducted in Kajiado Central Sub-County, Kajiado County, Kenya. The area experiences socio-economic challenges linked to poverty, pastoral livelihoods, and uneven access to education services, making it appropriate for examining the role of NG-CDF in supporting education access.

The target population consisted of 161 respondents drawn from Kajiado Central Sub-County. These included project managers from each ward, constituency committee members, project committee members, ward-based grassroots leaders (Nyumba Kumi), women representatives, and youth representatives. These groups were selected because they participate directly or indirectly in NG-CDF education-related projects and bursary implementation.

The study applied stratified random sampling to ensure fair representation of all wards and stakeholder categories within Kajiado Central Sub-County. The population was divided into strata based on administrative wards and stakeholder



roles. Simple random sampling was then used within each stratum to select respondents. This approach ensured representation of different NG-CDF beneficiary groups and improved the reliability of the findings.

Primary data was collected using a structured questionnaire administered to respondents. The questionnaire contained both closed-ended and open-ended items aligned to the study objective. It captured information on NG-CDF funding levels and access to education indicators such as enrollment, retention, and dropout trends. Secondary data was obtained from official reports, NG-CDF records, and relevant education reports within the constituency.

A pilot study was conducted using 16 respondents, representing approximately 10 percent of the study sample. The respondents were not included in the final study. The pilot test assessed clarity, relevance, and consistency of the questionnaire items. Feedback obtained was used to refine the data collection instrument before the main study.

Content validity of the research instrument was established through expert review to confirm that the questionnaire adequately measured the study variables. Suggestions from experts guided revision of unclear or ambiguous items. Reliability was tested using Cronbach's alpha coefficient to assess internal consistency of the questionnaire items. The reliability test confirmed that the instrument produced consistent results across different items measuring the same construct.

Data collected was analyzed using descriptive and inferential statistics. These measures were used to summarize respondents' views on NG-CDF funding levels and access to education.

Results and Discussion

Response Rate

The study distributed 161 questionnaires across key stakeholder groups involved in National Government Constituency Development Fund (NG-CDF) implementation in Kajiado Central Sub-County. Out of these, 97 questionnaires were completed and returned, giving a response rate of 60.25%. This rate falls within acceptable limits for social science surveys, which typically consider response rates above 50% adequate for analysis and inference (Mugenda & Mugenda, 2003).

Table 1: Response Rate by Respondent Category

Category	Distributed	Returned	Response rate (%)
NG-CDF Managers	1	1	100.0
NG-CDF Accountant	1	1	100.0
Project Managers	5	3	60.0
Committee Members	20	13	65.0



Category	Distributed	Returned	Response rate (%)
Opinion Leaders	74	53	71.6
Women Leaders	30	15	50.0
Youth Leaders	30	11	36.7
Total	161	97	60.25

Opinion leaders also recorded a relatively high response rate (71.6%), suggesting strong community engagement in NG-CDF-related decision-making structures. However, youth leaders recorded the lowest response rate (36.7%), indicating lower participation levels among younger stakeholders in governance and development discussions. The moderate overall response rate (60.25%) strengthens the validity of the study findings, as it reduces the risk of non-response bias and supports generalizability within the study area. According to Best and Kahn (2018), response rates above 50% in field-based surveys are sufficient for meaningful statistical interpretation in social research contexts.

Influence of NG-CDF Level of Funding on Access to Education

Respondents assessed the influence of NG-CDF education financing using a five-point Likert scale (1 = very low extent, 5 = very high extent). The results are summarized in Table 2.

Table 2: Descriptive Statistics for NG-CDF Education Financial Aid Indicators

Indicator	Mean	SD
Prompt bursary disbursement	1.60	1.20
Consideration of student background	2.40	1.30
Consideration of learners with special needs	3.20	1.20
Reduction of school dropout rates	2.10	1.30

The low mean score (M = 1.60) shows weak performance in timely release of education funds. This suggests delays in bursary processing and disbursement. Similar constraints appear in Zambia, where Sicalwe and Namangala (2025) found that delayed constituency fund disbursement (37.7% of respondents) reduced the effectiveness of education financing and weakened access outcomes despite infrastructure investments. Their study linked funding delays to reduced program efficiency and recommended stronger oversight and streamlined disbursement systems. Comparable evidence emerges from Kenya, where delayed or inconsistent constituency fund release has been associated with reduced continuity of educational support programs and weakened equity outcomes (Kimenyi, 2005). These findings align with the current results, where low timeliness undermines the ability of NG-CDF to consistently support school participation.



The moderate mean score ($M = 2.40$) indicates partial integration of vulnerability criteria in bursary allocation. This suggests that while some targeting occurs, coverage remains inconsistent. This pattern reflects findings from Mutegi et al. (2021) in Kirinyaga County, who reported that community perceptions and awareness influenced bursary uptake, meaning that not all eligible learners benefit equally from NG-CDF support. Similarly, Nzuki (2017) found that bursary allocation processes in Machakos County suffered from targeting inefficiencies and limited transparency, reducing equitable access to education support. Similar challenges appear in Ghana and Nigeria, where decentralized education funds improve access but unequal distribution limits fairness in beneficiary selection (Mensah et al., 2024; Adebayo & Okeke, 2023). The current findings therefore reinforce the need for improved targeting systems to strengthen equity outcomes.

The relatively high mean score ($M = 3.20$) indicates strong agreement that NG-CDF supports learners with disabilities. This reflects a positive inclusivity dimension in education financing. This outcome aligns with infrastructure-focused evidence from South Africa, where the Equal Education (2023) report showed that targeted improvements in school infrastructure and support services significantly improve participation of marginalized groups, particularly learners affected by accessibility barriers such as inadequate sanitation and overcrowding. Similarly, Kipchumba (2025) found that CDF-funded infrastructure investments, including laboratories and libraries, significantly improved learning outcomes and access conditions in Kenyan secondary schools. These findings suggest that targeted support to vulnerable learners improves equity outcomes when funding is directed toward inclusive education priorities.

The low mean score ($M = 2.10$) indicates weak agreement that NG-CDF funding reduces dropout rates. This suggests that financial support alone does not fully address dropout determinants. This finding is consistent with Sichalwe and Namangala (2025), who reported that although CDF increased enrollment in Zambia by 22.5%, persistent systemic challenges such as misallocation and delayed funding limited sustained educational participation. Similarly, Rukwaro et al. (2017) found that despite infrastructure improvements in Kiambu County, transition rates remained below national targets, indicating that access gains do not automatically translate into retention. In Development Bank of Southern Africa (2023) report highlighted that infrastructure expansion alone does not eliminate access gaps when funding remains insufficient relative to demand. Likewise, Equal Education (2023) demonstrated that structural barriers such as overcrowding and inadequate sanitation contribute to absenteeism and eventual dropout, particularly among vulnerable learners.

Effect of NG-CDF Level of Funding on Access to Education



To determine whether NG-CDF level of funding significantly influenced access to education in Kajiado Central Sub-County, a simple linear regression model was applied. This test assessed the predictive power of NG-CDF education funding indicators on access to education outcomes. The model estimated the relationship between the composite NG-CDF funding index (independent variable) and access to education (dependent variable).

Table 3: Simple Linear Regression Results for NG-CDF Level of Funding and Access to Education

Model Component	Beta (β)	Std. Error	t-value	p-value
Constant	1.112	0.284	3.915	0.000
NG-CDF Level of Funding	0.438	0.092	4.761	0.000

Model Fit: $R = 0.612$, $R^2 = 0.375$, Adjusted $R^2 = 0.368$, $F(1,95) = 22.67$, $p < 0.001$

The regression results show a statistically significant relationship between NG-CDF level of funding and access to education. The model indicates that NG-CDF funding explains 37.5% of the variation in access to education ($R^2 = 0.375$), which indicates a moderate explanatory power. The beta coefficient ($\beta = 0.438$, $p < 0.001$) shows a positive and significant effect. This means that an increase in NG-CDF funding level corresponds to improved access to education in Kajiado Central Sub-County. The t-value (4.761) further confirms that the relationship is statistically significant at the 0.05 level. The F-statistic ($F = 22.67$, $p < 0.001$) confirms that the overall regression model is significant and suitable for explaining the relationship between NG-CDF funding and access to education. The findings indicate that NG-CDF funding level plays a meaningful role in improving access to education, although the effect is moderate rather than comprehensive. The positive coefficient aligns with evidence from Kipchumba (2025), who found a significant positive relationship between constituency development funding and student enrollment, infrastructure expansion, and curriculum implementation in Nakuru County (r values ranging from 0.551 to 0.590, $p < 0.001$). This supports the conclusion that increased funding improves educational access conditions when effectively implemented. Similarly, Mutegi et al. (2021) reported that NG-CDF utilization significantly influenced transition rates to secondary education in Kirinyaga County, particularly through improved physical facilities and bursary support. Their findings emphasize that funding levels translate into access gains when resources reach targeted beneficiaries effectively. However, the moderate explanatory power ($R^2 = 0.375$) suggests that NG-CDF funding alone does not fully determine access to education. This aligns with Nzuki (2017), who found that despite CDF-driven school expansion in Machakos County, access inequalities persisted due to targeting inefficiencies and governance gaps. In addition, Rukwaro et al. (2017) observed that infrastructure



improvements in Kiambu County did not automatically translate into expected transition rates, indicating that structural and socio-economic factors also shape access outcomes. Sicalwe and Namangala (2025) reported that while CDF increased enrollment by 22.5% in Zambia, delays in disbursement and misallocation reduced overall effectiveness. This reinforces the current finding that funding level has a positive but incomplete effect on access outcomes when implementation challenges persist.

Conclusion

The study established that the level of NG-CDF funding has a statistically significant positive effect on access to education in Kajiado Central Sub-County. However, the magnitude of the effect remains moderate, indicating that funding alone does not fully resolve access challenges. Key weaknesses in timely bursary disbursement and inconsistent outcomes in reducing dropout rates limit the overall effectiveness of the fund. At the same time, stronger performance in supporting learners with special needs shows that targeted interventions within NG-CDF contribute meaningfully to improving equity in education access.

Recommendation

The study recommends strengthening the efficiency and timeliness of NG-CDF bursary disbursement systems to improve continuity of learning among vulnerable learners. Policy frameworks should also prioritize stricter targeting mechanisms to enhance fairness and reduce leakages in beneficiary selection. In addition, increased coordination between NG-CDF committees, school administrators, and community stakeholders should be reinforced to improve monitoring of fund utilization and align funding decisions with actual educational needs, particularly in marginalized and high-poverty areas.

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