SOUTHMOD

Policy note

Assessing the impact of free education policy on poverty and inequality in Zambia

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Findings

- Zambia's free education programme increased the school enrolment rate in Zambia by 8.4% in 2021 and 12.4% in 2022is effective in reducing poverty and inequality
- Female-headed households experience the most significant reduction in poverty as a result of the policy
- Household consumption increases, more so for lower-income households and less so for the highest income households
- The free education programme requires significant government spending

In 2022, Zambia introduced the provision of free education as a pivotal objective within the Eighth National Development Plan (8NDP) framework. The policy is among many other social policy interventions by the government, such as new social cash transfers and interventions to keep girls in school.

The free education programme abolishes most educational fees, including those related to the Parent Teacher Associations (PTAs), examinations, and tuition fees. Only boarding fees remain, but poor households can apply for funding from the Constituency Development Fund (CDF) bursary to cover those costs.

This policy note estimates and discusses the impact of this policy on poverty, inequality, and government spending in Zambia. It thereby adds to the limited body of evidence on this topic in Zambia and provides insights for the policy debate in a crucial area.

The need for free education

A significant body of evidence shows that user fees and tuition fees significantly impact school enrolment. A 2005 study by Tembo and Ndhlovu estimates that at least 45% of children who drop out of school in Zambia do so due to their inability to pay school fees. The importance of these findings becomes apparent when considering the notably above-average increase in enrolment observed in 2021 and 2022, when the free education policy was first introduced (see Figure 1 below).

Figure 1: Enrolment trend, 2015–2022
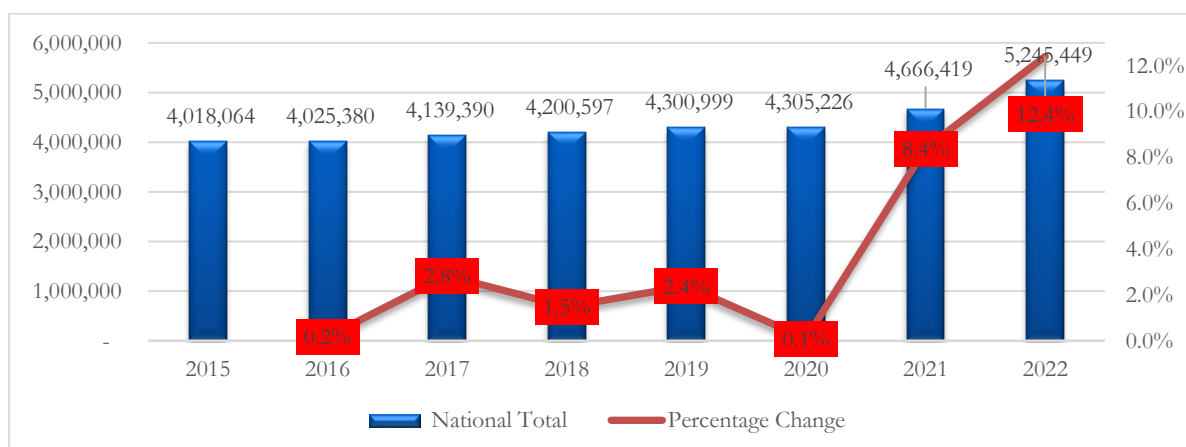
Source: Constructed from Educational Statistical Bulletin 2015–2020 [note that the 2021 and 2022 figures were taken from unpublished educational statistical bulletin].

Based on the most recently published statistic, Zambia sees more than 225,000 children drop out of school every year. This is an unacceptably high number of people who lose access to an education. Furthermore, the 2022 LCMS finds that household heads without education are overrepresented in

Zambia's poverty statistics. This implies that increasing enrolment and preventing dropouts is a justified policy programme, particularly in view of national goals to reduce poverty. The aim of the policy is to reduce the number of out-of-school children and serve as a double-pronged approach to the fight against poverty and inequality. That is, it is intended to improve the population's (especially poor households') economic outcomes through improved future earnings, while simultaneously providing immediate relief to poor households by eliminating the burden of school fees.

Methodology

The analysis is based on the tax-benefit microsimulation model MicroZAMOD within the harmonized SOUTHMOD v.A1.0 framework. The model allows us to assess how household consumption levels change when households no longer need to pay for school fees. It thus compares households' situations before the introduction of the policy with a situation where free education is in force.

Within the MicroZAMOD framework, eligibility for the free education benefit is contingent on an individual attending public school. In our model of the free education scenario, we assume that public primary school students will benefit from an additional ZMW 600 annually and public secondary school students will benefit from ZMW 3,000 and above, which reflects the amount saved in school fees which are no longer charged. These amounts are averages based on information about the school fees charged by a small sample of public schools provided by the Ministry of Education.

The large impact of free education on poverty reduction

Our model estimates a clearly positive impact of the free education policy on poverty. We observe a drop in the share of the population in poverty from 38.8% to 35.1%. Overall, the poverty rate is estimated to decrease by 3.7 percentage points.

Further simulations by household type reveal that female-headed households experience the largest decrease in poverty, with a 4.4 percentage point drop, followed by child-headed households, with a 3.9 percentage point drop. Among male-headed households, a 3.5 percentage point reduction is estimated.

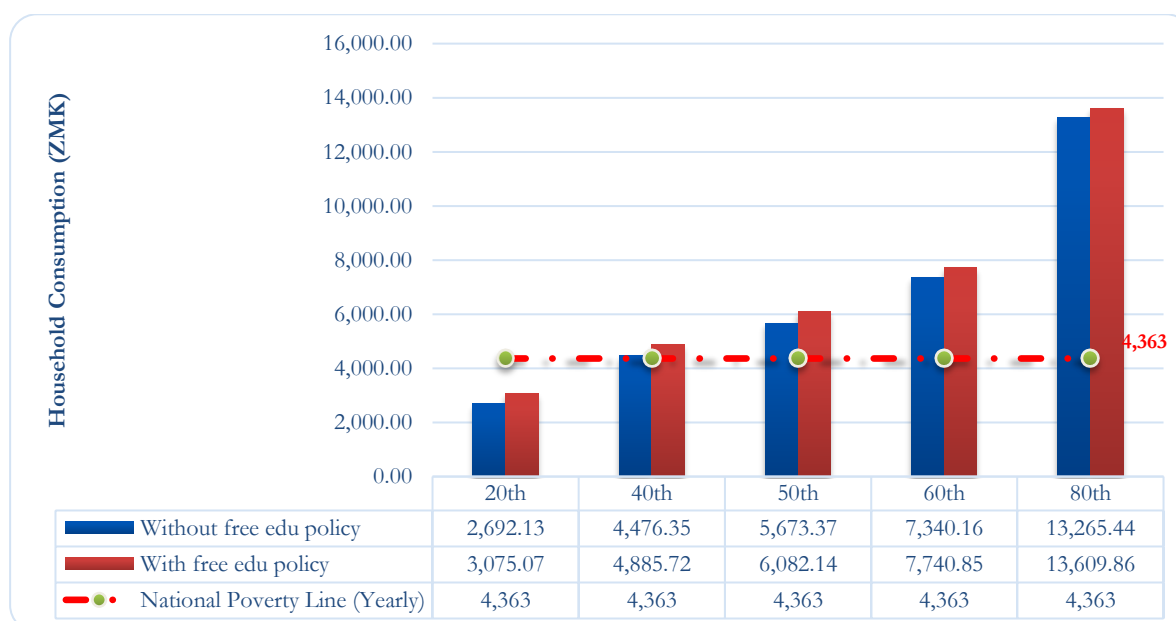Figure 2: Impact of free education on poverty by household head
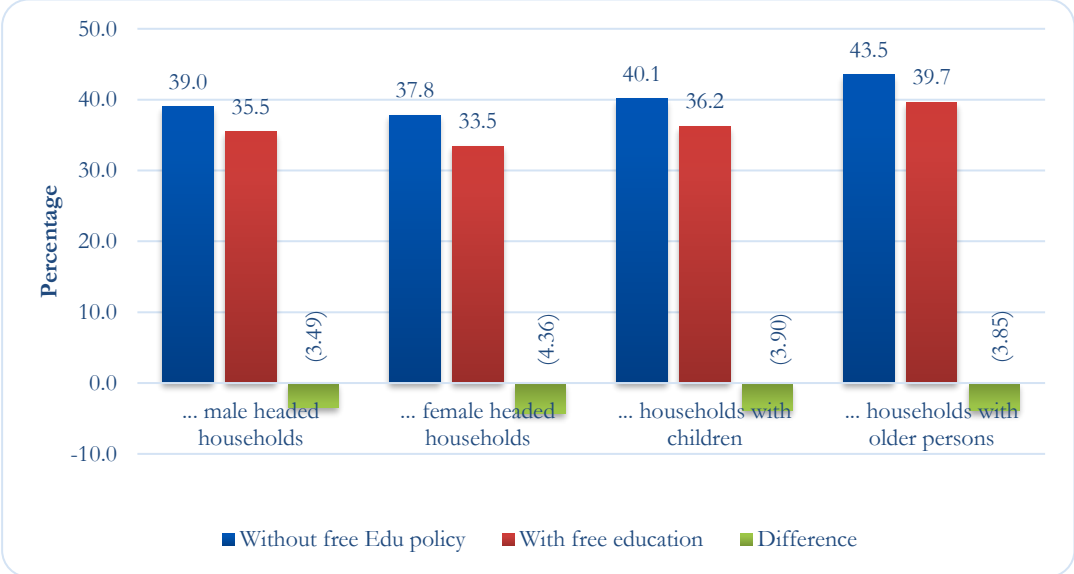
Source: Author's elaboration of MicroZamod Simulation output.

The policy also contributes to reducing inequality

Inequality—measured using the Gini coefficient—declined from 0.535 before the free education policy to 0.516 after the policy was introduced. Additionally, a reduction in the ratio of consumption between the top and the bottom quintiles of the distribution (i.e., P80/P20) from 4.93 before free education to 4.43 after implementation is observed. Figure 3 below shows that average consumption increases across all quintiles. Estimated average consumption of households located between the 20th and 40th percentile is actually lifted above the national poverty line, which underlines the free education policy's potential to alleviate poverty.

Figure 3: Estimates of the free education policy's impact on consumption

	20th	40th	50th	60th	80th
Without free edu policy	2,692.13	4,476.35	5,673.37	7,340.16	13,265.44
With free edu policy	3,075.07	4,885.72	6,082.14	7,740.85	13,609.86
National Poverty Line (Yearly)	4,363	4,363	4,363	4,363	4,363

Source: Author's elaboration based on MicroZAMOD simulation output.

The free education policy increases government spending

If all eligible students take up the free education benefit, government expenditure on transfers is estimated to double (see Table 1 below). This is a foreseeable outcome given that the government must augment school grants to offset the lost revenue by public schools. However, the potential of the programme to increase expenditure on social transfers by more than ZMW 5 billion (about USD 185 million and 3.2% of total revenue) raises questions of sustainability and the commitment of subsequent governments to continue the policy.

Table 1: Effect of free education on government expenditure (ZMW millions)

	without free education policy	With free education policy	Difference
Government expenditure on social transfers	5,234.61	10,442.50	5,207.89
… child benefits	583.93	5,791.82	5,207.89
… social assistance	2,486.13	2,486.13	0.00
… pension benefits	255.90	255.90	0.00
… agricultural benefits	1,908.65	1,908.65	0.00

Source: MicroZAMOD simulation output

The estimated increase in government expenditure is partly because of the growing need for additional educational infrastructure such as classrooms and desks, along with an increased demand for more teachers necessitated by the surge in enrollment. To support the implementation of the free education policy and to address longstanding understaffing in the sector, the Zambian government planned to recruit 30,000 teachers in 2022 and 4,500 teachers in 2023.

Limitations and caveats of results

The above estimates are based on several necessary assumptions. We assume that all entitled students actually receive the benefit and that the monetary value of school fees and the amount of additional government spending are equivalent. We use LCMS data for 2015 and update monetary values to 2022 using inflation, without making any further adjustments for potential demographic changes between 2015 and 2022.

Our results concentrate on assessing the immediate first order impacts of the free education policy on poverty, inequality, and government expenditure. They do not speak to the future financing needs, nor to future take-up of the policy. Future research may be warranted to investigate the sustainability of implementing the free education policy over time. Second, the data used in the analysis only considers students enrolled in public schools before implementing the free education policy in 2022. Thus, the research does not consider behavioural changes in the attendance rate due to the policy and its implications for households.

Policy recommendations

The study concludes that Zambia's free education policy has significant potential to effectively reduce poverty and inequality, but these gains are not revenue neutral. The programme substantially increases government transfer expenditures. While these are only a small part of total government expenditure, we estimate that full implementation will roughly double their size and come at an expense equivalent just over 3% of total revenue. The increased spending may raise sustainability concerns and therefore pose a risk to policy continuity. In light of these findings, we make the following recommendations:

- The government should work to enshrine free education in the constitution to ensure policy continuity
- The government should increase the budget for education to support the successful implementation of the free education policy
- Efforts should be made to meet the need for infrastructural and personnel development in the education sector due to policy-induced surges in school enrolment