ESSAYS ON BENEFIT INCIDENCE AND EFFICIENCY OF PUBLIC SPENDING ON EDUCATION AND TRAINING IN KENYA

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Abstract

Between 2002/03 and 2009/10 fiscal years, Kenya spent 6.4 percent of GDP and 26 percent of total public expenditure on education. Still, about 8.6 percent and 68 percent of primary and secondary school age children, respectively, were not in school during the period, and there were large disparities across regions in gross and net enrollments. Performance on national examination also varies widely across regions. In addition, many educated Kenyans are unemployed. This raises questions related to who benefits from public education spending; levels of technical efficiency and external efficiency of public education spending in Kenya. This thesis addresses these issues through three interlinked essays that empirically investigate the nexus between education inputs, outputs and labour market outcomes. The first essay estimates the average and marginal benefit incidence of public education spending and identifies the associated factors. The second essay uses a two-stage (DEA double bootstrap and regression) procedure to estimate technical efficiency of public education spending and to identify factors that explain disparities in technical efficiency. The analysis in the first two essays is at sub-national level (county level) so as to map inequalities in education benefit incidence and efficiency. The third essay examines external efficiency of education and links education and training to the country’s labour market outcomes. The thesis uses the 2005/6 Kenya Integrated Household Budget Survey data. Data on public education spending and education sector indicators was also used.

The empirical evidence from the first essay indicates that children from medium and high income groups are more likely to benefit more from expansion in public education spending in Kenya. The results also indicate large differences in levels of benefit incidence across counties. The main factors that constrain households from benefiting from public education spending include poverty, residing in urban areas, being a female child and low schooling level of household head. The result from the second essay indicate that the average DEA double bootstrap technical efficiency scores were 1.24, 1.12 and 3.04, for primary, secondary and tertiary education levels, respectively. This implies that education outputs can be increased by 24 percent, 12 percent and 204 percent at the respective education levels, without increasing inputs. The magnitude of resource saving is estimated at 17 percent, 10 percent and 52 percent for primary, secondary and tertiary education, respectively. The proportion of education budget spent on personnel emoluments in the sector is a major
constraint on technical efficiency of education. The estimates in the third essay indicate that private rates of return to education increase with level of education and differ across employment sectors. Individual earnings are a function not only of their own education but the education of the household members and education of the region they live in. These education externalities exceed private rates of return to education. The results from the three essays imply that policies to address pre-labour market inequalities in access and benefit incidence of education across counties, gender and income groups should be pursued. Policies to improve technical efficiency of public education expenditures should also be pursued particularly with respect to the composition of spending on education inputs.