PUBLIC SPENDING ON EDUCATION AND HEALTH IN NIGERIA: A BENEFIT INCIDENCE ANALYSIS

CSEA’s 2nd Economic Policy and Fiscal Strategy Seminar

Theme: STRENGTHENING THE BUDGET PROCESS FOR IMPROVED SERVICE DELIVERY

December 9, 2010
OBJECTIVE

- Determine how to answer the question: Is public expenditure in education and health sector in Nigeria pro-poor or pro-rich?

BASIC CONCEPT

- BIA as a tool focuses on how government subsidies affect the distribution of welfare in the population. It addresses the issue of supply and demand for public services and delivers information on efficiency and equity in government allocation of resources for social services and on the public utilization of these resources. The central idea behind BIA is to gain a better insight into how government funds are distributed across different income/expenditure groups or if spending is in reality targeted to either worse-off or better-off households.

- Commonly used to examine the impact of public expenditure
  - Analysis applicable to direct transfers or transfers obtained from consuming subsidized goods or services
  - This is the first attempt to conduct a rigorous BIA in Nigeria on how effectively the Nigerian government is able to target limited resources towards meeting the needs of the poor.
**Methodology**

- Estimating the incidence of public spending in the social sectors, three methodological techniques are involved:
  - **STEP 1: ESTIMATE UNIT SUBSIDIES**
    - unit subsidy = actual government expenditure / number of beneficiaries of that service.
  - **STEP 2: IDENTIFY USERS**
    - Obtain the number of beneficiaries in each social sector per facility level and quintile group.
  - **STEP 3: DISTRIBUTION OF BENEFIT**
    - Obtain the distribution of benefits by multiplying the unit cost of providing a service by the number of users in each facility level and quintile group.
    - **Benefit concentration curve** is used to examine if government spending is progressive (pro-poor) or regressive (pro-rich).
    - Rule of thumb - if the BCC lies above the 45 degree diagonal, the distribution is said to be progressive (preference for lower income group). On the other hand, if the BCC lies below the 45 degree diagonal the distribution is said to be regressive (preference for higher income groups).
SOURCE OF DATA

- NLSS 2008 is still a work in progress.
- The NLSS was conducted during a period of twelve months, covering 96,610 respondents and 19,158 households.
- Budget office of the Federation (2008 actual recurrent expenditure for Education and Health)

Assumptions

- Unit cost of providing the service is equally distributed across users and across facility level
- The number of respondents reporting any incidence of sickness is constant throughout the year.
**FINDINGS**

**Table 1: Per-Pupil/Student Government Subsidy for Enrolment by Facility Level: 2003/04**

<table>
<thead>
<tr>
<th>Facility level</th>
<th>Actual Expenditure (2008)</th>
<th>Rate of Utilization</th>
<th>Unit subsidy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>41,195,092,963</td>
<td>18,678,000</td>
<td>2,205</td>
</tr>
<tr>
<td>Secondary</td>
<td>16,477,669,977</td>
<td>9,906,000</td>
<td>1,663</td>
</tr>
<tr>
<td>Tertiary</td>
<td>125,981,876,421</td>
<td>1,350,000</td>
<td>93,319</td>
</tr>
</tbody>
</table>
### Table 2: Per User Subsidy by Facility Level: 2003/04

<table>
<thead>
<tr>
<th>Health facility Level</th>
<th>Actual expenditure (2008)</th>
<th>Rate of Utilization</th>
<th>Unit Subsidy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>45,569,277,024</td>
<td>51,454,000</td>
<td>885</td>
</tr>
<tr>
<td>Health centre/unit</td>
<td>19,767,952,116</td>
<td>77,532,000</td>
<td>254</td>
</tr>
</tbody>
</table>
## Table 3: Estimated Enrolment by Quintile and Facility Level

<table>
<thead>
<tr>
<th>Facility level</th>
<th>Quintiles</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(Poorest)</td>
<td>4,790,000</td>
<td>3,982,000</td>
</tr>
<tr>
<td>Primary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>1,459,000</td>
<td>1,761,000</td>
</tr>
<tr>
<td>Tertiary</td>
<td>230,000</td>
<td>300,000</td>
</tr>
<tr>
<td>(Richest)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 4: Estimated Users by Quintile and Facility Level

<table>
<thead>
<tr>
<th>Facility Level</th>
<th>Quintiles</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(Poorest)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td>6,734,000</td>
<td>9,828,000</td>
</tr>
<tr>
<td>Health centre</td>
<td>12,428,000</td>
<td>15,366,000</td>
</tr>
<tr>
<td>Total</td>
<td>19,162,000</td>
<td>25,194,000</td>
</tr>
</tbody>
</table>
## Table 5: Benefits of Education Expenditures by Quintile and Facility Level (₦ millions)

<table>
<thead>
<tr>
<th>Facility Level</th>
<th>Quintiles</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Primary</td>
<td>10,564</td>
<td>8,782</td>
</tr>
<tr>
<td>Secondary</td>
<td>2,427</td>
<td>2,929</td>
</tr>
<tr>
<td>Tertiary</td>
<td>21,464</td>
<td>27,996</td>
</tr>
<tr>
<td>Health Facility Level</td>
<td>Quintiles</td>
<td>Total</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Hospital</td>
<td>5,964</td>
<td>8,704</td>
</tr>
<tr>
<td>Health centre</td>
<td>3,168</td>
<td>3,917</td>
</tr>
<tr>
<td>Total</td>
<td>9,132</td>
<td>12,620</td>
</tr>
</tbody>
</table>
### Table 7: Benefits of Education Expenditures by Quintile and Facility (%)

<table>
<thead>
<tr>
<th>Facility level</th>
<th>Quintiles</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>(poorest)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>25.6</td>
<td>21.3</td>
<td>19.9</td>
<td>18.3</td>
<td>14.9</td>
<td>100</td>
</tr>
<tr>
<td>Secondary</td>
<td>14.7</td>
<td>17.8</td>
<td>20.2</td>
<td>21.5</td>
<td>25.8</td>
<td>100</td>
</tr>
<tr>
<td>Tertiary</td>
<td>17.0</td>
<td>22.2</td>
<td>10.4</td>
<td>15.6</td>
<td>34.8</td>
<td>100</td>
</tr>
</tbody>
</table>
**TABLE 8: BENEFITS OF HEALTH EXPENDITURES BY QUINTILE AND FACILITY (%)**

<table>
<thead>
<tr>
<th>Health Facility Level</th>
<th>Quintiles</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Hospital</td>
<td>13.1</td>
<td>19.1</td>
</tr>
<tr>
<td>Health centre</td>
<td>16.0</td>
<td>19.8</td>
</tr>
</tbody>
</table>
WEALTH DISTRIBUTION OF BENEFITS

FIGURE 1: DISTRIBUTION OF BENEFITS OF EDUCATION EXPENDITURES (%)
FIGURE 2: BENEFIT CONCENTRATION CURVE OF EDUCATION SUBSIDY BY QUINTILES AND FACILITY LEVEL
WEALTH DISTRIBUTION OF BENEFITS

Figure 3: Distribution of benefits of Health expenditures

The diagram shows the distribution of benefits of health expenditures across different quintiles, with benefits categorized for hospital and health centre expenditures.
Figure 4: Benefit Concentration Curve of Health Subsidy by Quintiles and Facility Level
**KEY POINTS**

- Only the incidence of primary education is found to be pro-poor while secondary and higher education tends to be regressive or skewed in favour of the rich (pro-rich). The pro-poor bias of primary education is largely driven by:
  (a) The demographic pattern of poor households tending to have more children.
  (b) The rich enrol their primary school aged children in expensive private schools.

- Expenditure in the health sector is pro-rich for both health facilities (hospitals and health centres). The reason for the low utilization of public health facilities by the poor are as follows:
  (a) Out of pocket payment in the health sector by the poor increases inequality in access to health care.
  (b) Lack of access maybe due to distance to health care facilities by the poorest quintile of the population.
  (c) Religious and cultural beliefs.
CONCLUSION

- The proximity of government facilities to disadvantaged groups should be revisited and resources shifted from urban to rural areas.
- Public expenditure tracking survey (PETS) should be introduced. This is a tool used to investigate the flow of public funds, major resource leakage and misuse. The method will ensure transparency and accountability of appropriate use of government expenditure.
- Measures should be initiated to improve the quality of service provided and monitor performance with a view to improving the rate of utilization of government services.
Thank you for your attention!