

# Linking Research and Action

STRENGTHENING FOOD ASSISTANCE AND FOOD POLICY RESEARCH

## Comparing Food and Cash Incentives for Schooling in Bangladesh

While both food and cash incentives can raise enrolment rates, in Bangladesh food rations increased families' food consumption, too, but cash transfers did not. Therefore, if a programme's goals include nutrition support in addition to raising school enrolment, a food-based incentive system appears to be more effective.

In an effort to increase educational attainment of children from poor families, the Government of Bangladesh launched the Food for Education (FFE) programme in 1993. The FFE programme provided a free monthly ration of rice or wheat to poor families in rural areas if their children attended primary school. In 2002, the government replaced the FFE with the Primary Education Stipend (PES) programme, which provides participating families with cash instead of food.

### The IFPRI evaluation

The International Food Policy Research Institute (IFPRI) evaluated the FFE programme based on surveys of households and schools conducted in 2000. In 2003, IFPRI resurveyed the same households and schools to assess the impacts of the PES and compare them with those of the FFE. Econometric models captured the impacts of FFE and PES on enrolment and food consumption, isolating the effects of income and other factors.

### Effects on School Enrolment and Food Consumption

Studying effects on enrolment and food consumption, IFPRI researchers found some similarities between the two programmes, but also an important difference.

Both FFE and PES programmes clearly encouraged poor families to enrol their children in primary school. The rate of increase in enrolment was greater for FFE (18.7 percent) than for PES (13.7 percent). The difference can likely be attributed to the larger incentive that FFE provided: The annual income transfer per student from FFE was \$29.28. It is \$20.69 from PES.

A striking 95 percent of the parents of FFE students indicated that FFE provided a major motivation for sending their children to school. They also said that while FFE enticed both boys and girls to school, it attracted more girls than boys.

Survey results show that, in both FFE and PES, net enrolment rates in primary school are higher for girls than boys. The higher opportunity costs of attending primary school for boys than girls may explain this discrepancy. For instance, in 2003, the stipend money from the PES programme (100 taka or \$1.72 per month) covered the opportunity cost for girls from low-income households in the first expenditure tercile (68 taka or \$1.17 per month), but not for boys in the same income group (127 taka or \$2.19 per month).

Interestingly, the increased school attendance due to FFE was maintained during the four-to-nine-month period between the end of FFE and

the launch of PES. Ninety-seven percent of parents reported that their FFE participating children continued their schooling during the programme transition.

The FFE and PES programmes differ sharply, however, in their effects on household food consumption. The evaluation found that FFE rations supplied, on average, 378 kilocalories (kcal) of energy per adult-equivalent-person per day to beneficiary households. The econometric analysis shows that participation in FFE led to an increase of 341 kcal per adult-equivalent-person per day. This finding suggests that 90 percent of the FFE food ration was additional to the regular diet—households did not substitute their normal food consumption with FFE ration.

In contrast, participation in the PES programme has no effect on food consumption in the household.

For those parents whose children participated in FFE and then switched to PES, 77 percent of mothers and 81 percent of fathers prefer PES cash stipend over FFE food ration. The major reason given is that cash can be used directly to meet education and other family expenses. However, the majority of the parents also observed that FFE food led to more food consumption in their households, while the cash stipend has no such effect.

### Targeting

Both FFE and PES target children from the poorest 40 percent of all households in a programme community using a set of official targeting criteria. These criteria are based on family landholding, living in a

female-headed household, and having a household head in a low-income occupation. The FFE programme used a two-step targeting mechanism. First, economically disadvantaged areas with low literacy rates were selected. Second, within these areas, primary school-age children became eligible for FFE benefits if their families met the official targeting criteria. Unlike FFE, PES does not use any geographic targeting mechanism, since it operates throughout rural Bangladesh.

In reality, however, the targeting performance of both programmes has been unsatisfactory. The targeting errors of exclusion (leaving out those who are needy) and inclusion (providing benefits to those who do not need them) are quite large for both programmes (see figure). The analysis also reveals that a large proportion of the nonpoor households meet the official targeting criteria. These criteria, therefore, provide scope for perverse discretion and corruption in the beneficiary selection process. Thus, the official targeting criteria need improvement.

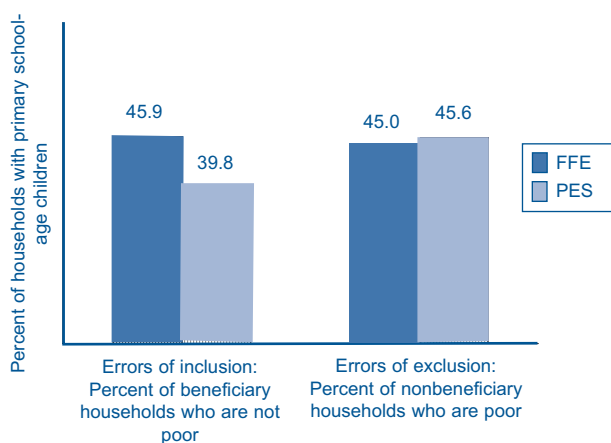
### Suggestions for Targeting

A more accurate method of identifying the poor would be to develop and administer a “proxy means test.” This approach relies on indicators that are highly correlated with household income (or total consumption expenditure), yet are easy to collect, observe, and verify. Points (weights) are assigned to selected indicators, and eligibility for programme benefits is determined on the basis of a total score, as a proxy for household income.

To achieve maximum impact and minimize the exclusion and inclusion

errors, the PES programme could consider using a two-step targeting mechanism. First, more PES resources could be targeted to those regions where primary school enrolment rates are still low and the incidences of poverty are high. Second,

**Targeting performance of FFE and PES: Errors of inclusion and exclusion**



Note: The bottom 50 percent of all households in the income distribution are defined as poor.

within the regions, a more reliable proxy means-testing method could be used to select children from the poorest households to benefit from the stipend.

### Implications for Food Assistance Programmes

Direct and opportunity costs of schooling are the main causes for children from poor families not to attend school. Although primary schooling is free in most developing countries, costs such as books and other school materials, clothes, shoes, and transportation can be a heavy economic burden. In many poor families, children must contribute to the household’s livelihood.

Governments in many countries are using food as an instrument for reaching development goals, such as education for all, while also reducing hunger among the poor.

Some programmes, however, use cash instead of food as an incentive for parents to send children to school. While cash incentives can also raise enrolment rates, and parents may prefer the cash stipend, the present case shows that cash transfers alone may not increase food consumption of household members.

Therefore, if a programme’s goals include nutrition support in addition to raising school enrolment, a food-based incentive system is more effective.

Food-based education interventions have been implemented in two basic forms: (1) children are fed in school (school feeding programmes) (see the IFPRI/WFP brief on “The Impact of Feeding Children in School: Evidence from Bangladesh”), or (2) families are given take-home rations, as in Bangladesh’s FFE programme.

Both types of programmes can work well individually. But by combining school feeding and take-home rations, governments have an even more powerful way to alleviate food shortages within households, help children learn by reducing hunger in the classroom, and foster long-term human development.

Finally, to be maximally cost-effective, any of these approaches must be carefully targeted. Since it is impractical to feed only the poor in a given classroom, school feeding programmes should target regions where school enrolment rates are low and malnutrition and poverty rates high. For food for schooling, optimal targeting requires a two-stage effort: first, targeting the neediest areas, and then, the neediest households in those areas.

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