



## Educational and Health Impacts of Two School Feeding Schemes

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Abstract	<p>This paper uses a prospective randomized trial to assess the impact of two school feeding schemes on health and education outcomes for children from low-income households in northern rural Burkina Faso. The two school feeding programs under consideration are, on the one hand, school meals where students are provided with lunch each school day, and, on the other hand, take-home rations that provide girls with 10 kg of cereal flour each month, conditional on 90 percent attendance rate. After running for one academic year, both programs increased girls' enrollment by 5 to 6 percentage points. While there was no observable significant impact on raw scores in mathematics, the time-adjusted scores in mathematics improved slightly for girls. The interventions caused absenteeism to increase in households that were low in child labor supply while absenteeism decreased for households that had a relatively large child labor supply, consistent with the labor constraints. Finally, for younger siblings of beneficiaries, aged between 12 and 60 months, take-home rations have increased weight-for-age by .38 standard deviations and weight-for-height by .33 standard deviations. In contrast, school meals did not have any significant impact on the nutrition of younger children.</p>
Gender Connection	Gender Informed Analysis
Gender Outcomes	Gender disaggregated school enrollment, school attendance, nutrition
IE Design	Clustered Randomized Control Trial (Treatment is clustered at the village level)
Intervention	Two forms of school feeding programs considered: school meals and take home rations (THR). Under school meals program breakfast and/or lunch (possibly fortified with micronutrients) is served at the school every school day. Under THR each girl would receive 10 kg of cereal flour conditioned on 90% attendance rate.
Intervention Period	School lunch was served every day in the 2006-2007 academic year
Sample population	48 students were sampled from each school from 2208 households totaling 4140 school aged children between the age of 6 and 15.
Comparison conditions	Treatment was randomized between take-home rations, school meals, and a control group with no treatment.
Unit of analysis	Student Level



Evaluation Period	A baseline survey was conducted in June 2006 and a follow up survey was conducted in June 2007 at the end of the academic year.
Results	<p>Among children between 6 and 15 years, new enrollment increased by 6.2% overall and by 5.6% for girls in villages which were randomly selected to receive THR. New enrollment for girls increased by 5% in villages that received school meals. While both interventions were successful in increasing new enrollment, the impact is confined to younger children. There is no evidence that THR targeting girls crowds out boys registration. There was a significant gain in test scores for girls in school meals villages and these gains are confined to older girls in school meals villages (13 to 15 years old). There was no significant impact overall on boys, but there was a negative and statistically significant effect on older boys in the school meals villages (no explanation given). There was no discernible impact on cognitive outcomes. Overall, results suggest the program had no impact on boys' attendance and leads to relatively lower attendance among girls. The authors argue that the increased enrollment could be accompanied by lower attendance rates if there is no active labor market and households are labor constrained and/or child labor is complementary to adult labor. Overall, the interventions did not eliminate child labor, but instead altered the allocation of child labor (especially among girls) away from productive activities and more toward domestic activities which the children may be more able to combine with school activities. For children between 6 and 60 months who were not in school, take home rations have increased weight-for-height by .33 standard deviations and weight-for-age by .38 standard deviations. Overall, both programs improved enrollment with take home rations having positive spillovers onto younger children, and results also suggest that food redistribution within the household might tend to favor boys over girls.</p>
Primary study limitations	
Funding Source	Spanish Impact Evaluation Fund
Reference(s)	Kazianga, H., De Walque, D., & Alderman, H. (2009). Educational and health impacts of two school feeding schemes: Evidence from a randomized trial in rural Burkina Faso. World Bank Policy Research Working Paper No 4976
Link to Studies	<a href="http://library1.nida.ac.th/worldbankf/fulltext/wps04976.pdf">http://library1.nida.ac.th/worldbankf/fulltext/wps04976.pdf</a>
Microdata	