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Inputs, Incentives, and Complementarities in Education: Experimental Evidence from Tanzania*

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Abstract

The idea that complementarities across policies can yield increasing returns from joint implementation has been posited in several economic settings. Yet there is limited, well-identified evidence of such complementarities in practice. We present results from a randomized experiment across a representative sample of 350 schools in Tanzania that studied the impact of providing schools with (a) unconditional school grants, (b) bonus payments to teachers based on student performance, and (c) both of the above. At the end of two years, we find (a) no impact on student test scores from providing school grants, (b) some evidence of positive effects from offering performance-linked bonuses to teachers, and (c) significant positive effects on learning from providing both programs. Most importantly, we find strong evidence of complementarities between the two programs, with the effect of joint provision being significantly greater than the sum of the individual effects. Our results suggest that accounting for complementarities between inputs and incentives could substantially improve the effectiveness of public spending on education.

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We present results from a large-scale randomized experiment across 350 schools in Tanzania that studied the impact of providing schools with (a) unconditional grants, (b) teacher incentives based on student performance, and (c) both of the above. After two years, we find (a) no impact on student test scores from providing school grants, (b) some evidence of positive effects from teacher incentives, and (c) significant positive effects from providing both programs. Most importantly, we find strong evidence of complementarities between the two programs, with the effect of joint provision being significantly greater than the sum of the

individual effects. Our results suggest that combining spending on school inputs (which is the default policy) with improved teacher incentives could substantially increase the cost-effectiveness of public spending on education.

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