

## Annex 30E. Cost of Education by Level

Supplemental material for: E. Pradhan, S. Martinez, M. Schaferhoff, and D.T. Jamison. 2017. "The Effects of Education Quantity and Quality on Child and Adult Mortality: Their Magnitude and Their Value." In *Disease Control Priorities* (third edition), Volume 8, *Child and Adolescent Health and Development*, edited by D.A.P Bundy, N. de Silva, S. Horton, D.T. Jamison, and G.C Patton. Washington DC: World Bank.

The table includes the estimated average (unweighted) per pupil costs by income group (YR2012, in 2012 US\$). These cost estimates were provided by the International Commission on Financing Global Education Opportunity and were also used by Psacharopoulos, Patrinos, and Montenegro (2016).

**Table 30E.1:** Direct per-pupil costs of schooling (unweighted), 2012

	Low income	Lower middle income	Upper middle income
Primary	\$68	\$234	\$1276
Lower secondary	\$135	\$299	\$1415
Upper secondary	\$303	\$431	\$1,293

As described in Annex 30D, we used the following direct costs in our IRR and BCR analysis: For LICs we used the costs for primary education; for LMICs we used the cost for lower secondary education; and for UMICs we used the mean of lower and upper secondary education. The level of schooling used for cost estimates was based on the income group's mean years of schooling. Both the mean and mean+1 years of schooling for LICs are primary school; both the mean and mean +1 years of schooling in LMICs are lower secondary; while in UMICs, the mean is lower secondary and mean +1 year of schooling is upper secondary level.

We calculated the opportunity cost of attending an additional year of school by averaging the opportunity cost (the earnings differential between the level of schooling at mean +1 year and one level below it) at each age in a given level of attendance. Thus, the opportunity cost for LICs was calculated by averaging the earnings differential between primary and no schooling attainment for children aged 6-11, while the opportunity cost for LMICs and UMICs was calculated by averaging the earnings differential between secondary and primary attainment for children ages 12-17. Data on earnings differentials, aggregating by income groups, was obtained from Psacharopoulos, Patrinos, and Montenegro (2016).

**Table 30E.2:** Direct and opportunity cost of one additional year of schooling above the income-group mean (per pupil)

	<b>Direct Cost</b>	<b>Opportunity Cost</b>
<b>LICs</b>	\$68	\$54
<b>LMICs</b>	\$299	\$617
<b>UMICs</b>	\$1,354	\$2,522

*Note:* LICs = low-income countries; LMICs = lower middle-income countries; UMICs = upper-middle-income countries.