Countries with Merit Pay Score Highest on International Tests

Significantly better student achievement seen in countries that make use of teacher performance pay

CAMBRIDGE, MA – A new study finds that student achievement is significantly higher in countries that make use of teacher performance pay than in countries that do not use it. Students in countries with performance-related pay score 25 percent of a standard deviation higher on the Programme for International Student Assessment (PISA) tests in math; 24 percent higher in reading; and 15 percent higher in science. Since one-quarter of a standard deviation is roughly a year’s worth of learning, the study’s author suggests that “by the age of 15, students taught under a policy regime that includes a performance pay plan will learn an additional year of math and reading and over a half a year more in science.”

Ludger Woessmann, a professor of economics at the University of Munich, conducted the study for Harvard’s Program on Education Policy and Governance. A research article presenting the study’s findings will appear in the Spring 2011 issue of Education Next and is currently available on the web at www.educationnext.org.

The author analyzed a survey conducted by the Organisation for Economic Co-operation and Development (OECD), which identified the developed countries participating in PISA that reported having some type of performance pay plan for teachers. The OECD survey reported on performance pay policies in place at a time corresponding to the administration of the PISA tests in 2003, which made the study’s comparative data analysis possible. Using this information, the author examined PISA test scores of 27 countries, 12 of which indicated that they had performance pay and 15 of which did not.

The findings of higher math, reading, and science performance (noted above) among the countries that use performance pay were obtained after adjustments for levels of economic development across countries, student and school background characteristics, and features of national school systems. A series of sensitivity tests, such as restricting the analysis to variation within continents only, support the results.

The author points out that according to the results of the 2009 PISA tests, released in December 2010 by the OECD, “The United States performed only at the international average in reading, and trailed 18 and 23 other countries in science and math, respectively” while students in China’s Shanghai province “outscored everyone.” He also notes that in terms of relative performance, “in no subject did the scores for the United States differ significantly” between the 2003 and 2009 PISA test administrations.

About the Author
Ludger Woessmann is professor of economics at the University of Munich and heads the Human Capital and Innovation department at the Ifo Institute for Economic Research.

About Education Next
Education Next is a scholarly journal published by the Hoover Institution that is committed to looking at hard facts about school reform. Other sponsoring institutions are the Harvard Program on Education Policy of Governance, part of the Taubman Center for State and Local Government at the Harvard Kennedy School, and the Thomas B. Fordham Foundation.

For more information please visit: www.educationnext.org

###