

RESEARCH NEWSLETTER

Research Foundations for the World Bank's Human Capital Index

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FEATURE STORY



The Methodology behind the World Bank's New Human Capital Index

Investments in human capital are central to growth and productivity. While the world has seen unprecedented gains in human capital over the last 25 years, large gaps persist across countries, limiting growth prospects and threatening progress in ending extreme poverty.

Estimates suggest that in countries with the lowest human capital investments the work force of the future will be less than half as productive as it could be if

people enjoyed full health and received a complete education. The World Bank's new Human Capital Index systematically quantifies this gap by examining the contribution of health and education to the productivity of the next generation of workers in over 150 countries.

In a [new working paper](#), economist [Aart Kraay](#) describes the methodology behind the new [Human Capital Index](#) (HCI). The index combines indicators of health and education into a measure of the human capital that a child born today can expect to obtain by her 18th birthday, given the risks of poor education and health that prevail in the country where she lives. The HCI is measured in units of productivity relative to a benchmark of complete education and full health, and ranges from 0 to 1. For example, Morocco has an HCI equal to around .5, which means that a child born today will only be half as productive as she could have been relative to the benchmark of complete education and full health. The HCI varies substantially across countries, ranging from .3 in the poorest countries to .9 in the best performers—highlighting the urgent need for transformational human capital investments in many countries around the world.

[Working Paper](#) | [Data](#)

RESEARCH HIGHLIGHTS

✓ [Learning-Adjusted Years of Schooling \(LAYS\): Defining A New Macro Measure of Education](#)

[Deon Filmer](#), Halsey Rogers, Noam Angrist, and Shwetlena Sabarwal, Policy Research Working Paper 8591, September 2018.

A proposed new summary measure, Learning-Adjusted Years of Schooling (LAYS), combines quantity and quality of schooling into a single easy-to-understand metric of progress. The LAYS index improves on the standard metric—the average number of years of schooling—because it is a better predictor of important outcomes, and it improves incentives for policymakers.

✓ **[Going beyond incentivizing formal health providers: Evidence from the Rwanda Community Performance-Based Financing program](#)**

Gil Shapira, Ina Kalisa, Jeanine Condo, James Humuza, Cathy Mugeni, Denis Nkunda, and Jeanette Walldorf, Health Economics, forthcoming | Working Papers 1 and 2.

A demand-side transfer to service users as a supplement to Rwanda's Performance-Based Financing program increased timely antenatal care by 9.3 percentage points and postnatal care by 8.6 percentage points. This study shows how demand-side incentives can increase service utilization when provided in addition to a supply-side pay-for-performance scheme.

✓ **[Maternal depressive symptoms are negatively associated with child growth and development: Evidence from rural India](#)**

Phuong Hong Nguyen, Jed Friedman, Mohini Kak, Purnima Menon, and Harold Alderman, Maternal & Child Nutrition 14(4): e12621, October 2018.

Maternal depression is significantly associated with both child undernutrition and development delay, adding even greater support to the call for practical interventions to address maternal depression.

✓ **[Combining pre-school teacher training with parenting education: A cluster-randomized controlled trial](#)**

Berk Özler, Lia C. H. Fernald, Patricia Kariger, Christin McConnell, Michelle J. Pinheiro Neuman, and Eduardo Fraga, Journal of Development Economics 133: 448-467, July 2018 | Working Paper

In resource-poor settings with informal preschools (Malawi), programs that integrate parenting support with preschools may be more cost-effective for improving child outcomes than programs focusing simply on improving classroom quality.

✓ **[The impact of secondary schooling in Kenya: A regression discontinuity analysis](#)**

Owen Ozier, Journal of Human Resources 53 (1): 157-188, Winter 2018 | Working Paper

Secondary schooling increases human capital, leads to a reduction in low-skill self-employment among men, and reduces teen pregnancy among women.

✓ **[Incentivizing safer sexual behavior: Evidence from a lottery experiment on HIV prevention](#)**

Martina Björkman Nyqvist, Lucia Corno, Damien de Walque, Jakob Svensson, American Economic Journal: Applied Economics 10(3): 287-314, July 2018 | Working Paper

A financial lottery in Lesotho with relatively low expected payments but a chance to win a big prize conditional on negative test results for sexually transmitted infections resulted in a 21.4 percent reduction in HIV incidence over two years.

✓ **[Tuberculosis detection and the challenges of integrated care in rural China: A cross-sectional standardized patient study](#)**

Sean Sylvia, Hao Xue, Chengchao Zhou, Yaojiang Shi, Hongmei Yi, Huan Zhou, Scott Rozelle, Madhukar Pai, and Jishnu Das. PLOS Medicine 14(10): 1-20, October 2017.

Tuberculosis diagnosis may be significantly delayed due to continuing deficits in the quality of care, particularly at the bottom tier of the health system. Reforms that require referrals before visiting hospitals may slow the diagnostic process even further.

✓ **[Enrollment without learning: Teacher effort, knowledge, and skill in primary schools in Africa](#)**

Tessa Bold, [Deon Filmer](#), Gayle Martin, Ezequiel Molina, Brian Stacy, Christophe Rockmore, Jakob Svensson, and Waly Wane, Journal of Economic Perspectives 31(4):185-204, Fall 2017 | [Working Paper](#)

The data collected in this study quantifies primary school teacher effort, knowledge, and skills through direct observations, unannounced visits, and tests from primary schools in seven sub-Saharan African countries to help explain why students aren't learning.

✓ **[General equilibrium effects of targeted cash transfers: Nutrition impacts on non-beneficiary children](#)**

[Deon Filmer](#), [Jed Friedman](#), [Eeshani Kandpal](#), and Junko Onishi, Policy Research Working Paper 8377, March 2018.

A Philippine cash transfer program targeted to poor households increased the prices of protein-rich foods in recipient communities, leading to worse nutrition indicators among non-beneficiary children. Failing to consider local general equilibrium effects can overstate the net benefits of targeted cash transfer programs; offering these programs on a universal basis can help mitigate negative spillovers.

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RELATED

Research Digest: Fall Issue on Health and Nutrition

This issue features recent World Bank studies that highlight the role of health and nutrition in building human capital and alleviating poverty.

[Read the digest »](#)

- **What cost childhood stunting? And what returns to programs combatting stunting?**

[Emanuela Galasso](#) and [Adam Wagstaff](#) | Let's Talk Development, March 30, 2017

In a [policy research note](#) that came out today, we and our co-authors assembled a broader evidence base to re-estimate the aggregate income penalty that countries incur from childhood stunting. We calculate the effects of childhood stunting on lifetime income operating through all potential pathways: reduced schooling, reduced height in adulthood, and lower cognitive skills. For each of these pathways, we translate the deficit into the lower labor market returns – and hence lost adult income – that a stunted child incurs when she joins the labor force.

[Read the blog »](#)

UPCOMING EVENTS

- October 23, 2018 | [Policy Research Talk: Gendered Language](#)
- November 5, 2018 | [Policy Research Talk: Debt Forgiveness](#)
- November 12–16, 2018 | [Short Course: Impact Evaluation Methods](#) (Kuala Lumpur)
- January 15–16, 2019 | [Globalization: Contents and Discontents](#) (Kuala Lumpur)
- March 25–29, 2019 | [Land and Poverty Conference 2019: Catalyzing Innovation](#)

To see more events, please click [here](#).

ANNOUNCEMENTS

Worldwide Governance Indicators

Data through 2017 are now available on the [Worldwide Governance Indicators Website](#). The indicators report aggregate and individual governance indicators for over 200 countries and territories from 1996 to 2017, for six dimensions of governance.

Global Extreme Poverty Continues to Decline but Has Slowed

New [poverty estimates](#) released in [PovcalNet](#) indicate that in 2015, 10 percent of the global population were living on less than the international poverty line of US\$1.90 per person per day. This estimate is based on a series of new and updated data inputs, including more than 1,600 household surveys from 164 countries, as well as data from national accounts, population statistics, inflation data, and purchasing power parity data. The estimates will be published in a report entitled [“Poverty and Shared Prosperity 2018: Piecing Together the Poverty Puzzle.”](#) See the report launch on October 17, 2018 @ [World Bank Live](#) at 12:30 p.m. eastern time.

BLOGS

Why social exclusion is hard to change: A behavioral perspective

[Karla Hoff](#) and [James Walsh](#) | Future Development, September 4, 2018

Suppose your political goal is to help people from a historically excluded group get the same shot at achieving success as people from privileged groups. After hard work, you remove binding structural constraints for education, training, employment, credit, health care, and transportation. Is your job done?

[Read the blog »](#)

Magnets for discrimination? Affirmative action in Maryland

A reply to the New York Times

[Jishnu Das](#) | Future Development, September 21, 2018

How do we ensure that education systems adequately compensate for the multiple deprivations that children from poor families may face? Where do we want to be in that line between rewarding effort and compensating for disadvantage?

[Read the blog »](#)

Multigenerational mobility in the developing world

[Daniel Mahler](#), [Christoph Lakner](#), [Roy van der Weide](#), [Ambar Narayan](#) | Let's Talk Development, July 12, 2018

A large body of literature has shown that the outcomes of children are tied to the outcomes of their parents or, in other words, that children face different life prospects based on their family background. Social mobility (or lack thereof) depends not just on how parents influence the outcomes of their children, but also on how outcomes persist across multiple generations, from grandparents to grandchildren.

[Read the blog »](#)

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