

com/2cwyqqd), which ranks 157 nations according to measures of investment in their people. The bank's measure is relatively simple, constructed from data on child survival and growth, years of primary and secondary schooling, and health. A country can achieve a perfect score if all children born today can expect to survive to 60 without impaired growth and development — resulting from poor nutrition, repeated infection or inadequate psychosocial stimulation, and measured by ratios of height and age — and can expect to have received 14 years of good-quality schooling by age 18.

The index is based on the assumption that a country's economic productivity is tied to the knowledge and abilities of its people. It followed the release, two weeks earlier, of the results of a parallel (but separate) academic exercise by the Institute for Health Metrics and Evaluation at the University of Washington in Seattle (S. S. Lim *et al. Lancet* **392**, 1217–1234; 2018).

The World Bank hopes its new index will mimic the success of its national “ease of doing business” ranking, which has focused government efforts around the world to reduce corruption and encourage outside investment as a way to secure a higher placing than their rivals and competitors. The bank wants to demonstrate how measures of education and health are linked to the productivity and prosperity of a country, assuming that investing in human capital through education and health systems can yield rapid development. In short, it wants to push countries to make things better for their people — and their human capital ranking. It has certainly managed to draw attention: Indian officials immediately protested against their country's low ranking, and government officials there say they will ignore what they argue to be a simplistic and misleading measure.

Top scorers on the World Bank list include Singapore, South Korea and Japan, whereas many African countries, including Mali, Nigeria and Liberia, performed poorly and were near the bottom of the index.

The Institute for Health Metrics and Evaluation based its ranking of 195 countries on similar factors, but incorporated more measures of health and education, and used different data sources and methods. Finland, Iceland and Denmark top its charts, which cover the period from

1990 to 2016. During this time, the United States tumbled from 6th to 27th place, largely owing to minimal progress in educational attainment.

Few would argue against the goal of encouraging better health and education. And perhaps by framing these needs in terms of economic returns and tapping into the political desire to climb the leader boards, these measures might succeed in having a greater impact on decision-makers than do simple appeals to the intrinsic good. For example, one way to improve a country's position would be for it to reduce gender inequality in years of schooling.

“These indices are only as good as the data that underlie them.”

But any metric — be it a university ranking or standardized mathematics testing — is selective and must be interpreted appropriately. Too often it becomes a convenient proxy, leading to inferences of quality for which it was never intended, and distorting reality. As in most analyses of this type, these indices are only as good as the data that underlie them. There is a huge range in the quality and quantity of data on both health and education across countries. And although deductions about the exact effects of health outcomes and education on economic productivity are based on research, the true relationships are unclear for the range of countries and contexts to which the Human Capital Index is being applied. Critics are right to point out that a national score does not account for regional differences in a country.

Scientists can play a part here, to ensure that indices such as these become the credible motivators that they are intended to be. More and better data on indicators of health and educational outcomes will improve the accuracy of the indices. More research on rigorous ways to capture other determinants of human capital, and on their relationship to health, prosperity and well-being, will enrich our understanding of how to reach global development goals. *Nature* recognizes the need for such work to help inform policymakers and make their efforts more evidence-based. As such, we encourage submissions of high-quality data and analysis addressing knowledge gaps in assessing and improving human health and well-being. ■

ANNOUNCEMENT

Matters Arising: a venue for commentary

There was a time when scientific progress depended on elaborate and often protracted exchanges of correspondence. Charles Darwin wrote thousands of letters, and his correspondence with influential thinkers had an important impact on his theories. This communication was private. Fortunately, much has survived and found its way into archives, where it forms a key part of the scientific record.

Although research findings today are mainly disseminated and recorded in the form of peer-reviewed research manuscripts, scholarly commentary on published research is still crucial: it can provide nuance, refinement and caveats. And these days, it moves fast.

So, from this week, *Nature* will consider such post-publication contributions as Matters Arising — a format designed to peer-review and publish online exceptionally interesting and timely scientific comments and clarifications related to primary research papers published in the journal. Authors of the original papers will be given the chance to reply. If our editors deem that these responses move the discussion forward in a constructive way, they will be published at the same time as the Matters Arising article.

We also recognize the need for timely release of these exchanges

to the relevant communities, and the difficulty of doing so through an often-lengthy peer-review process. So, to accommodate both rigorous peer review and the need for timeliness, authors of Matters Arising and the original *Nature* paper are encouraged to release preprints during the formal journal process, as supported by our policies. Comments can also be made on all original *Nature* research papers online, and these can be linked to relevant commentaries, to articles published elsewhere and to relevant preprints.

Decisions to publish Matters Arising will be taken by journal editors. To ensure the integrity of the published record, and to help readers find all relevant information, published Matters Arising articles will be linked to the online version of the original paper and to the original authors' response. This format will replace Brief Communications Arising as an avenue for post-publication commentary on primary research.

Over the coming months, we plan to introduce the Matters Arising format to the other *Nature* Research journals, where it will replace Correspondence for such discussions. In this way, we aim to offer a standardized formal mechanism and a constructive peer-review process for post-publication commentary. This should allow debate on published papers in the journals' online pages, and provide visibility and credit for authors engaged in these debates.

All current policies on competing interests, authorship standards (including joint authorship) and author contributions, availability of data, materials and code (where relevant), and publication of the reporting summary will apply to Matters Arising and any published reply from the original authors. ■