ROSS WILLIAMS

7. GLOBAL: A GOOD NATIONAL SYSTEM OF HIGHER EDUCATION: THE LESSONS OF THE U21 RANKINGS

International Higher Education, Winter 2016, Number 84

It is the nature and quality of the higher education system as a whole, not just that of research intensive universities, that matters for the economic, social, and cultural development of a nation. However, the international rankings of universities are based heavily on research performance, largely ignoring teaching and training, scholarship, and community engagement. These rankings are influencing university behavior, especially in Europe, Asia, and Australasia, and act to reduce the diversity of higher education institutions.

THE U21 RANKING METHODOLOGY

In an attempt to move discussion away from institutions to higher education systems as a whole, in 2012 the U21 group of universities commissioned a project to quantify the performance of national systems. The coverage is all tertiary institutions, that is, all institutions that offer at least a two-year program after final year schooling. Fifty countries are included, spanning the per capita income range from Indonesia and India at one end to high income developed countries at the other. Performance is evaluated over 25 variables grouped into four modules: resources, the policy environment, connectivity/engagement and output. The resource measures cover private and public expenditure as a share of GDP and expenditure per student. The policy environment measures include the degree of financial and academic independence of institutions, diversity of institutions, the monitoring of standards, and the views of business. Connectivity is measured by joint publications with industry and with international coauthors, web connectivity, surveys of business attitudes, and the relative importance of international students. The output measures include research performance, participation rates and the standing of a country's top three universities. Internationally comparative data are not available on the quality of graduates, but a measure of whether the mix and standard of graduates are meeting community expectations is provided by unemployment rates of graduates, relative to school leavers.

G. Mihut et al. (Eds.), Understanding Global Higher Education, 33–35.
© 2017 Sense Publishers. All rights reserved.

For each measure, scores are standardized relative to the best performing country which is scored at 100. The measures are then weighted to give a score (out of 100) and rank for each of the four modules, and subsequently an overall score and rank. The overall score is obtained giving a weight of 40 percent to output and 20 percent to each of the other three modules. A limitation of the rankings (but not the scores) is that not all countries are included, which means, particularly for countries with less developed systems, that a country's world ranking may be overstated.

POLICY USES OF THE MEASURES

As is the case with the rankings of universities, most media interest concentrates on the overall national rankings. But it is the scores and rankings for the modules and individual variables, together with the relationships between them, that provide the lessons for higher education policymakers.

Adequate resources combined with a favorable policy environment are necessary for a quality national system of higher education. Lessons can be drawn from looking at the correlations between the scores for the two input modules (resources and the environment) and the end-result modules (connectivity and output). Among the output variables, participation rates and population qualification rates are strongly correlated with expenditure, but it does not matter whether the expenditure is predominantly government financed (as in the Nordic countries) or private (as in Korea). On the other hand, research performance is strongly linked to university expenditure on research and development, which is largely government funded. A measure of the aggregate efficiency of the system is to compare a nation's rank on output measures with that on resources. To illustrate, two countries where the rank on research performance is much higher than the rank for resources are the United Kingdom and China. In both countries, government research funding is targeted to select universities, which suggests this is a quick way to raise research performance. Connectivity is also highly correlated with resources.

ARE NATIONS CONVERGING?

After four annual rankings some trends are noticeable. There has been a continual improvement on most indicators for most countries, so that for a country to keep its ranking it must improve faster than average. There is little evidence of convergence in national systems of higher education over the four years. Using the standard deviation of the scores as a measure of convergence, the overall scores actually show a small increase in divergence and the only module where convergence has occurred is connectivity. But the general finding hides significant movements for individual countries. The greatest improvers are China and South Africa; Chile and Hungary also improved their ranking. Countries that have fallen in rank include Ukraine, Bulgaria, Serbia, Greece, Spain, and Turkey. Within the individual measures some convergence is discernable—for example, in participation rates and expenditure as a share of GDP.

WHAT SYSTEMS PERFORM BEST?

What, then, is the best national system of higher education? No single model dominates. The Nordic countries perform well with a system of relatively close cooperation between universities, government, and business, with high expenditure on research and development; similarly for Switzerland that is particularly strong in domestic and international connectivity. It is a moot point whether this model is possible, or even desirable, in a large economy where lines of communication are more complex. At the other end of the distribution, the more decentralized US system, less reliant on government funding, is ranked first overall. There is, however, one strong conclusion from the rankings: the worst performing national systems are those where there is considerable government control over institutions but low levels of government funding.

In formulating national policies, governments should look at the attributes of countries of similar size and income levels that are performing well. The attributes of a "good" system of higher education depend in part on a country's level of per capita income. At low levels of income there is a need to build up teaching and training; research is best concentrated on importing and spreading new ideas. In an auxiliary U21 ranking, countries are evaluated relative to their levels of GDP per capita. China, India, and South Africa rise up appreciably in the rankings using this measure.

The other side of the coin is to look at how measures such as connectivity, qualification levels, and research expenditure affect economic growth. The lags can be long here and the answers will have to wait for a few more years of data. Ideally, this exercise also requires the inclusion of more low-income countries, but for this better data are needed.