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Measuring university participation

When students start university affects comparisons among countries

by Léo Charbonneau

It sounds simple enough, but it has important implications for comparing university participation rates in different countries: not everybody goes to university at the same age.

To get around this, Herb O'Heron, senior adviser for national affairs at the Association of Universities and Colleges of Canada, has come up with a new, flexible measure that he believes more accurately reflects university access.

The measure significantly alters how some countries compare to others in terms of their university participation rates. Canada's rate would increase somewhat, but our relative position would fall as several countries leapfrog over us.

Mr. O'Heron devised the new measure to fill a statistical void. The Organization for Economic Co-operation and Development, which represents most of the world's major industrialized countries, stopped publishing member countries' university participation rates six years ago, precisely because of comparability problems with the data.

The OECD traditionally measured participation rates in three discrete age groups, starting with the 18 to 21 cohort. However, the problem with using any fixed age cohort is that you'll miss university students not in that age range, said Mr. O'Heron. As well, if you have very few university students in part of that cohort, this could badly skew the ratio.

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To compensate for this, Mr. O'Heron has proposed that, for each country, you choose the four years where there are most students enrolled, irrespective of age. This method could also be used for inter-provincial comparisons within Canada. Using the highest four-year age cohort, he explained, helps to adjust for system differences, such as the

Participation rate, 18-21 age cohort and highest 4-year age cohort, 2001
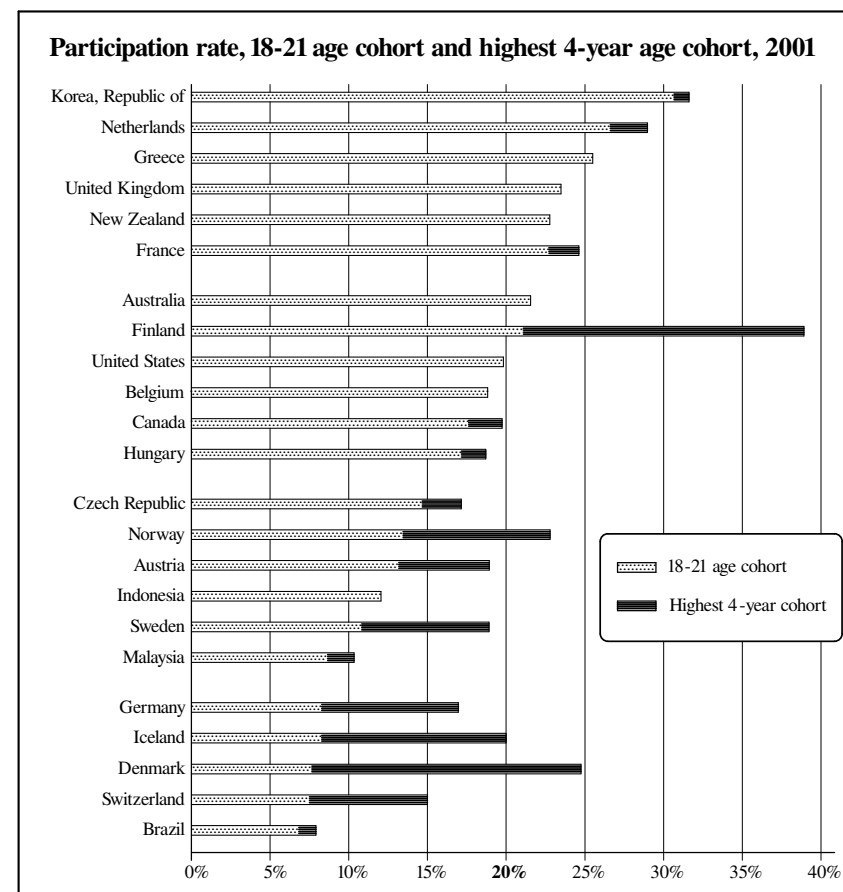
length of time it takes to complete secondary school.

For example, in Germany and many Scandinavian countries, there are far more students in university in their early to mid-20s than there are in their late teens, partly because they finish secondary school later. In Denmark, for example, using 2001 data, there were only 121 students in university at age 18 and just 1,500 at age 19, versus more than 19,000 at age 24 and 18,000 at age 25.

"As a result, when using the highest four-year age cohort, which for Denmark turns out to be 22 to 25, the university participation rate triples compared to the 18 to 21 cohort," said Mr. O'Heron. "Furthermore, rather than trailing Canada by a wide margin, the participation rate for Denmark actually surpasses the Canadian rate in the 19 to 22 age range – our highest four-year cohort." For some countries, such as the U.S. and U.K.,

the 18 to 21 cohort continues to be most accurate.

Shown the new measure, Scott Murray, director general of institutions and social statistics at Statistics Canada, said he finds it "a very useful innovation. It overcomes some of the comparability problems."

Walter Sudmant, director of planning and institutional research at the University of British Columbia, said Mr. O'Heron's work illustrates the "fundamental weakness" of relying on a single indicator to illustrate a complex situation. "We crave a simple measure to feed into policy and advocacy, while Mr. O'Heron had shown that one thoughtful improvement in an indicator ..... can create huge swings in interpretation."

It's always good to refine the measures, said Dr. Sudmant, but "there is no substitute for understanding the real nature of different systems by looking at lots of information and indicators together."

The article EM0422 reprinted above is used in Chapter 4 of the STAT 231 Course Materials and in Statisrical Hughlight #45.