

students do not regularly attend class. This may be a boon for university finances but not for quality education.

Research is the other major component of OECD-reported spending per student. Here the measurement issue is that presenting research spending on a per student basis, as the OECD does, makes little sense. An elite system would show a higher level of research spending per student, while in a mass system research spending per student would be lower. But this does not accurately reflect a country's commitment to research. It would be much more sensible to consider research spending as a share of GDP, as various publications (and the OECD) do for the broader category of research and development.

FINANCIAL COMMITMENT

In addition to measuring costs per student, OECD also reports financial resources spent on tertiary education as a percentage of GDP. As discussed above in the context of research spending, measuring a country's financial commitment by what it spends as a percentage of GDP can be preferable to looking at per student spending figures. But as is the case in educational spending, the OECD-reported commitment figures may include spending items for some countries that are not included in the figures submitted by others. Again, to use the United States as an example, it has the highest commitment of all OECD countries by a wide margin; but its leadership comes

Like enrollment ratios, both these persistence rates are proxies because most OECD countries do not track how many students in a cohort complete their program of study

from its very high level of private resources, which include university hospitals as well as endowments that are not shown or do not exist in data for many other OECD countries. The public commitment in the United States is actually quite modest; it ranks 15th among OECD countries in public resources devoted to tertiary education.

This review of some key OECD statistics for tertiary education suggests that they should be used with great care in comparing the effort and the accomplishments of various countries. It also suggests that in a number of instances we should be trying to develop better measures to compare OECD countries on these and other key variables. ■

International Comparisons: What Your Fourth-Grade Math Can Reveal

CLIFFORD ADELMAN

Clifford Adelman is a senior associate at the Institute for Higher Education Policy in Washington, DC. E-mail: cadelman@ihep.org. The original version of this article appeared in the online Inside Higher Education, December 15, 2008.

It's not that the latest rhetorical trope in the bad news presentation of US higher education is to say—wherever improvements are acknowledged—“Wait a minute! But other countries are doing better!” and rush out a rash of Organization for Economic Cooperation and Development (OECD) population ratios that show the United States has “fallen” from 2nd to 9th or 3rd to 15th place in whatever indicator of access, participation, and attainment is at issue.

The trope is not new in any country. Want to wake up your local or national policymakers? Tell them someone is down, and that someone is us. For some odd reason, educators everywhere, in countries large and small, love self-flagellation. In the metrics of international economic comparisons, we treat trade balances, GDP, and currency exchange rates the same way.

Except in matters of higher education, the metrics are false, and our use of them both misguided and unproductive. For postindustrial nations, the most visible reports on higher education lead off with OECD population ratios drawn from its annual *Education at a Glance*, assuming they were passed down from Mt. Sinai as the tablets by which we should be judged. The population ratios, particularly those concerning higher education participation and attainment for the 25–34 age cohort, will serve the preferred tendency of education leaders and policymakers to engage in a national destructive orgy that purposefully neglects some very basic and obvious facts. I urge colleagues from countries outside the OECD not to fall into this trap.

You do not need more than fourth-grade math to see the problems with population ratios, whether you are a large ship or small skiff in the human harbor. None of the reports using OECD data bothers to recognize the relative size of the US ship or the relative diversity of races, ethnicities, nativities, religions, and native languages that characterize our 310 million residents. They would blithely compare our educational landscape with that of Denmark, for example, a country of 5.4 million, where 91 percent of the inhabitants are of Danish descent and 82 percent belong to the same church. They would exalt Finland in higher education matters, another racially and lin-

guistically homogenous (bilingual, to be sure, in Finnish and Swedish) country of 5 million, with a population growth rate of 0.1 percent and a net immigration rate of 1 percent (principally from eastern Europe), where the capacity of the higher education system was expanded by one-third in the 1990s with 11 new polytechnic institutions known as AMKs (for the United States to do something equivalent would require establishing 600 new four-year colleges) and where tuition is fully subsidized. Even so, the median age of entrance to higher education in Finland is 23 years (compared with 19 in the United States), and the median age at which Finnish students earn bachelor's

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degrees is 28 years (compared with 24–25 in the United States). Is comparing Finnish and US higher education dynamics a fair sport? That is an obvious rhetorical question. Is comparing any long-established but postcolonial higher education system with newly established postcolonial systems (e.g., Argentina vs. Senegal) a fair sport? That is another obvious rhetorical question.

It's not that one shouldn't compare one's records to those of other countries; it's just that population ratios are not the way to do it.

ANOTHER DEMOGRAPHIC PLANET

OECD has used census-based population ratios to bypass a host of inconsistencies in the ways its 30 member countries report education data. However, as it turns out, the countries also employ different census methodologies, so the components of the denominator from Sweden are not identical with the components of the denominator from Portugal. Moreover, when ordinary folk who have no stake in education propaganda look at those 30 countries and start asking questions about fertility rates, population growth rates, net immigration rates, and growth in foreign-born populations, they cannot help but observe that the United States lives on another planet. Only 4 countries out of the 30 show a fertility rate at or greater than replacement (2.0)—France, New Zealand, Mexico, and the United States—and of these, Mexico has a notable negative net migration rate. Out of those 30 countries, 7 have negative or zero population growth rates and another 5 show growth rates that might as well be zero. On the other hand, the US population growth rate, at 0.9 percent, is in the top 5. In net immigration through 2008, only Australia, Canada, and Ireland were ahead of us (and we count only legal immigrants). The Migration Policy Institute shows the percentage growth in for-

eign-born populations in the United States over the past 15 years at 45.7 percent—more than double the rate for Australia and Canada. It is no state secret that our immigrant population is (a) young, (b) largely schooled in other countries with lower compulsory schooling ages, and (c) pushing the US population denominator up. Looking ahead to 2025, Census projections show an increase of 4.3 million in the 25–34 age bracket. Of that increase, 74 percent will be Latino, and another 14 percent Asian. Can you find another country, OECD or otherwise, where an analogous phenomenon is already in the cards? As noted, the United States lives on a different demographic planet.

IT'S THE MATH, STUPID!

More to the point is your fourth-grade math. The European Union projects a decline of 9 million in the traditional college-age population by 2025, and Japan expects its population to drop by 11 percent. Now, what happens to a fraction—and the percentage based on a fraction—when the denominator declines dramatically and the numerator either remains flat, rises slightly, or declines slightly? And, on the other side of that fourth-grade calculation, what happens when the denominator rises considerably and the numerator remains flat or rises slightly? This is a no-brainer: the gap between US bachelor's degree attainment rates in the target-age-bracket population, and those of most countries with whom we are normally compared by the bad-news bears will continue to expand for as far as the eye can see. Unfortunately, given the propagandistic motivation of the reports that use self-flagellation to gain policy influence (and business), trying to teach basic math and human geography to putatively intelligent adults is like talking to stones. They don't want to hear it.

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THE BOLOGNA FACTOR

Why is all this important? OECD itself understands the limitations of population ratios for education a lot better in 2008 than it did a scant five years ago and is now offering such indicators as cohort survival rates in higher education. Driving this new sensibility is the Bologna process in 46 European countries, under which, depending on country, anywhere from 20 to 80 percent of university students are now on a three-year bachelor's degree cycle. Guess what happens to the graduation-rates fraction when one moves from the legacy four- and five-year degrees to the new three-year degree? Couple this trend with declining population bases, and some European countries' population ratio-based attainment will climb to stratos-

pheric levels. That trend will suit the crisis mongers just fine, except none of it will help anyone understand their own situation or where international comparisons truly matter. And for non-OECD countries where census methodologies and coverage have not fully matured, population ratio comparisons are even more problematic.

And that is the more important point. The numbers do not help us do what we have to do. They steer us away from the task of refashioning the pieces of paper we award into meaningful documents, representing learning that helps our students compete in a world without borders. Instead of obsession with ratios, we should look instead to the action lines of the Bologna process: degree qualification frameworks, a “tuning” methodology that creates reference points for learning outcomes in the disciplines, the discipline-based benchmarking statements that tell students precisely what to expect of their educational journey and the public precisely what learning our institutions should be accountable for, Diplomas Supplements that warrant student attainment, more flexible routes of access, and ways of identifying and targeting for participation underrepresented populations through geocoding. Slowly but surely, these features of Bologna are shaping a new global paradigm for higher education, and in that respect other countries are truly doing better. We should all be studying the substance, perhaps experiencing an epiphany or two about how to turn the big ship or the small skiffs on which we travel into the currents of global reform. ■

The Reinvention of Undergraduate Education in Hong Kong

MARTIN J. FINKELSTEIN AND ELAINE M. WALKER

Martin J. Finkelstein is professor of higher education at Seton Hall University, South Orange, NJ, USA. He was a Fulbright Senior Specialist in Hong Kong. E-mail: finkelma@shu.edu. Elaine M. Walker is a visiting scholar at Seton Hall University and the University of Hong Kong.

In 2004/05, the government of Hong Kong authorized a major reform of its eight public universities—known as the “3-3-4 reforms.” To be implemented in 2012, the three-year undergraduate degree program, focused exclusively on a profession or academic field, will be changed to a four-year undergraduate degree program, including a substantial component of nonspecialized or general education. While many factors contributed to the government’s action, two overriding factors were a desire to ensure the future competitiveness of Hong

Kong in the global knowledge economy and to align Hong Kong’s educational pipeline with those in the Chinese mainland, the United States, and the European Union.

On the face of it, Hong Kong’s 3-3-4 reforms represent another classic case of government imposing far-reaching changes on universities. Two factors, however, distinguish the Hong Kong “experiment” from typical government intervention: first, the mandates encourage distinctiveness in the response of individual institutions according to their missions and history; and second, the universities have received considerable lead time and a modest infusion of additional resources from the government.

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The eight public universities funded through the University Grants Committee include three historically research-intensive universities (the English-language University of Hong Kong, the bilingual Chinese University of Hong Kong, and the University of Science and Technology); two former polytechnics (Polytechnic University and City University); the Hong Kong Baptist University (founded by American Baptists in the 1950s and incorporated into the University Grants Committee public system in 1987); Lingnan University (with a focus on undergraduate liberal arts); and the Hong Kong Institute for Education (with a specialized teacher training and master’s level focus).

CURRENT DEVELOPMENTS

Nearly all the universities have established faculty and administrative task forces within the formal academic governance structure to drive the institutional planning process; and several have established new administrative positions to direct the process. Providing reports to the University Grants Committee is required biennially. While all institutions have focused their efforts on designing a first-year transitional undergraduate experience, most are concentrating as well on a redesign of the major, to promote specific learning objectives—including renewed emphasis on outside the classroom experiences (e.g., internships and service learning off campus) and foreign-exchange study opportunities on the mainland and across Asia and the world.

ACADEMIC STAFFING CHALLENGES

Such broad-based curricular redevelopment poses several major challenges: Who will do the curricular development and delivery? What incentives will entice the “best” faculty to