percent) shows the rapid expansion and the critical impact of family education.

But this gap is also linked to low education levels of parents of students who are not completing primary or secondary education (parents with poor education are unable to help their children master basic skills). Most of the 40 percent of fourth grade students who cannot understand a 100-word passage (and eventually drop out or barely graduate from primary education) had parents with less than secondary education according to the socioeconomic analysis of the national test for that grade. Given the link between parents' education and economic income it can be concluded that few students from families with an income below the national average sit for the entrance examination for subsidized universities. Most of the 23,000 students who graduated from high school in 1998 but did not sign up for the entrance exam had less-educated parents.

The entrance examination shows an association between students' achievement (at the end of secondary education) and parents' education. One-third of the students (57,909) revealed a low ability to understand written questions and to carry out relatively straightforward reasoning (the test is focused on ability rather than knowledge). Parents of those students (scoring below the minimum required for admission to subsidized universities) have less education (only 17.1 percent had higher education) than parents of the average student that sit for the entrance exam (33.6 percent).

Family education is also linked to the ability to invest in preparing for an additional entrance exam.

Family education is also linked to the ability to invest in preparing for an additional entrance exam. The education of parents of older students who had taken the PAA exam previously (35.7 percent with higher education) was somewhat higher than the average parent of students who signed up for the entrance exam (33.6 percent). This difference is consistent with the education of parents of 26,664 students who scored over the minimum (required for admission to subsidized universities) but realized that their chance of being accepted in their preferred field or university was remote and thus did not apply for admittance in 1999. Their families were also more educated (39 of the parents had higher education) than the average parent of students who signed up for the entrance exam.

In summary, students mastering basic abilities are being promoted to upper educational levels and eventually admitted into higher education. At the same time, education enrollments at all levels are increasing at a rapid pace. This rapid expansion is reflected in the finding that half of the students being admitted into universities are the first in their families to enroll at a university. However, further expansion of the higher education system will require an increase in achievement levels in primary education, both on grounds of quality and equality.

Note: The full version of this analysis of the Chilean admissions process (in Spanish) can be downloaded from the IIDE website www.iide.cl/publicaciones/libros.

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Higher Education in Papua New Guinea: Striving for Quality

Dick Rooney

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Papua New Guinea, one of the world's least-developed countries, has set in motion a plan to try to improve the quality of its universities, but it will have to struggle against poverty and low capacity to achieve the necessary changes.

The higher education sector in Papua New Guinea (PNG) is mixed and disorganized in structure. Each of the six universities (four public, two private) was based on separate enabling legislation, with enrollments ranging from 400 to 3,000 full-time students. Most of the 26 institutions of higher education are single-discipline institutions (8 are teacher education institutions and 8 health education institutions). Higher education enrollments are estimated to number 6,345, representing about one percent of the 19-to-24-year age cohort. The numbers enrolled at the universities have increased by 22 percent since 1997.

Key Challenges

The lack of clear accreditation procedures means that most of these institutions, with only a few notable exceptions, are offering a narrow range of similar courses with quality that goes unchecked and probably varies from good to very poor. PNG's Commission for Higher Education has adopted a new framework for accredita-

tion of higher education institutions. The commission is intended to give universities the leading role in determining how the sector will develop in the future. A certain amount of rationalization in higher education is being achieved through the amalgamation and affiliation of smaller colleges with larger institutions and by closures. The Ministry of Higher Education, Research, Science and Technology, which overviews the sector and works with the Commission for Higher Education and the Office of Higher Education, provides policy advice, coordination, planning, and other services. Although the commission has taken the lead role in formulating policy concerning academic quality assurance and institutional accreditation, progress has been slow, hampered by lack of finances and also lack of commitment from some of the institutions themselves. Some international providers have entered the higher education market to fill existing gaps, but most offer small business-related and distance-education courses. The main overseas involvement comes through the two church-based private universities that rely heavily on the expertise of expatriate staff.

The country is extremely fragmented with more than 800 distinct cultural groups, each with its own language.

Although rationalization is taking place, it is difficult to organize anything on a national scale in PNG. The country is extremely fragmented with more than 800 distinct cultural groups, each with its own language. About 85 percent of PNG's population, estimated at 5.3 million, live in isolated scattered rural settlements. Literacy rates are low, at about 45 percent and even lower for English literacy (the language of instruction in PNG), at about 29 percent. It can be difficult to get reliable statistics about the country but the United Nations estimates that only 23 percent of PNG 15-to-19-year-olds are enrolled at secondary school and 31 percent of 5-to-14-year-olds, at primary school.

There are doubts among key players, such as the Commission for Higher Education and the Office of Higher Education, that universities have the capacity to undertake the necessary work to improve quality. Public institutions are handicapped by low salaries and demoralized staff. PNG's own brand of nepotism, known as *wantokism*, undermines the higher education sector as it does public life generally. Although there has recently been much public condemnation of corruption, people are still appointed to jobs on the basis of their family and clan connections rather than their ability to perform. At the same time many students are awarded places in academic programs on the basis of whom they know and not what they know.

Universities struggle to produce coherent and transparent strategies in curriculum content and design, teaching and learning, and assessment. Some universities and the CHE have been working closely with overseas' universities, especially those with church affiliations in neighboring Australia and nearby Philippines. The two private universities of PNG's six universities have strong links with Catholic and Adventist international communities.

Accreditation Policy

A National Higher Education Quality Assurance and Accreditation Committee set up by the Commission for Higher Education and with representatives from all PNG's universities took nearly three years to finalize the new accreditation policy. A variety of stakeholders were involved in the process, but the main thrust came from within the universities themselves. Their final recommendations were adopted by the commission and publicly launched by the prime minister in November 2003.

The new accreditation methodology is in line with international trends, with self-evaluation and peer review central to the process. Universities will need to find suitably qualified people to make up a pool of experts from which a committee will be drawn up to visit an institution and ascertain its suitability for accreditation.

The universities and higher education sector will have to struggle to create a timetable for implementation and find a budget to pay for it.

The six universities will be the first institutions to undergo accreditation. In the PNG system all higher education–level programs offered at institutions will need to be affiliated to one of the universities. The new process creates great challenges. The universities and higher education sector will have to struggle to create a timetable for implementation and find a budget to pay for it. PNG is currently undergoing one of its frequent periods of fiscal restraint. In 2003, universities did not get their full allocation of funding from the government to pay student tuition fees and living expenses. A repeat performance is expected this year.

Universities and Development

PNG universities have the potential to offer education, training, and research programs that can support the country's development. A labor force is being trained, especially for basic and secondary education and the country's health needs, as well as future government, civil service, and business leaders. PNG universities also believe they should impart cultural values, attitudes, and ethics that can help to construct a healthy civil society and support good governance and a democratic political system. Another objective is to produce graduates who are keen and able to contribute to their immediate communities and the country.

However, there are many problems facing universities: overcrowding, limited or obsolete libraries, insufficient equipment, outdated curriculum, and underqualified teaching staff, to name just a few. Until quality is improved, graduating students every year from weak programs almost certainly means that, however committed or capable the students, they will be ill-equipped to satisfy the development needs of the country or to compete internationally. ■

The Challenge of Ontario's Double Cohort

Sue Winton and Glen A. Jones

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The "double cohort," a perhaps unfamiliar concept outside Ontario, Canada, has been a source of angst for tens of thousands of students, their parents, and the province's postsecondary institutions since 1997. This concept refers to the unique situation of two cohorts graduating from high school at the same time. The challenge of accommodating the double cohort in Ontario's universities and colleges ultimately forced the government to fund a dramatic expansion of postsecondary education.

In 1995, a neoliberal government led by Premier Mike Harris was elected in Ontario under the campaign slogan "Common Sense Revolution." Canada's unique federal structure and decentralized approach to educational policy made it possible for this new provincial government to move quickly to reduce the government's expenditures on education, increase university and college tuition fees, and reduce taxes.

In June 1997, Ontario's Ministry of Education and Training announced that it would eliminate the 13th year of schooling with the introduction of a new four-year secondary school curriculum, effective September 1999. The new curriculum would be phased in one year at a time, but the plan also created a situation in which two cohorts would graduate from high school in 2003: one from the old five-year secondary program and one from the new four-year program. The challenge of accommodating the double cohort in Ontario's universities and colleges prompted new policies and promises from the provincial government.

Following the government's announcement, Ontario's colleges and universities expressed concerns about their capacity to accommodate substantial increases in enrollment.

The Need for Expansion

Following the government's announcement, Ontario's colleges and universities expressed concerns about their capacity to accommodate substantial increases in enrollment. In addition to the double cohort, demographic changes associated with the baby boom echo and an overall increase in postsecondary participation rates were also expected to increase demand. The advocacy groups of Ontario's colleges and universities—the Association of Colleges of Applied Arts and Technology of Ontario (ACAATO) and the Council of Ontario Universities (COU)—argued that substantial investment in capital projects, technology, academic infrastructure, and operating grants were crucial.

In the 1999 budget, the government announced the SuperBuild Growth Fund. The new fund would consolidate Ontario's entire infrastructure spending under one program. Over $740 million was allocated to postsecondary institutions to build and modernize in anticipation of an expanded student population; $660 million of the total was designated for new capital projects, but with private sector contributions this amount was expected to increase significantly. In May 2000, the SuperBuild investment in new capital and facility renewal was increased in hopes of creating 73,000 new student spaces.

While the higher education sector welcomed new capital funding, university and college leaders became increasingly concerned about the absence of increased government commitments in the form of operating grant support for expansion. With the double cohort only three years away, the operating grant announcements for 2000–