

in Ontario. Mainly undergraduate and relatively small, three of these institutions had less than 8,000 students, and one had about 17,000 students. We analyzed background documents from the government and the institutions, carried out site visits to the campuses of the institutions, and interviewed senior faculty and staff working in the area of internationalization.

Ontario's image as one of the most multicultural societies in the world enhances its universities' efforts to develop their internationalization activities. The higher education institu-

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tions are relatively autonomous, with the latitude to develop their own missions and strategies. The government lacks clarity with respect to its internationalization program, which gives institutions little guidance on how to progress. This situation becomes complicated by the two-tier government and provincial and federal responsibilities for different, and sometimes overlapping, aspects of higher education. The lack of a clear national strategy—with financial incentives for students and institutions—results in a meagre 1 percent of higher education students going abroad for study. The Association of Universities and Colleges of Canada has been promoting Canadian higher education lately, but a number of institutions still “suffer” from the lack of international appeal.

RESPONSES TO GLOBALIZATION

A surprising similarity was found among the universities regarding a focus on international recruitment, although they differed considerably in achieving this objective. International enrollment ranged from 1.2 to 8.5 percent, and main countries of origin also differed greatly. Emphasis varied on student versus staff mobility and on internationalizing the curriculum versus international research cooperation. The main reasons for internationalization—particularly international student recruitment—were portrayed as the value of student diversity as well as revenue generation.

We found that the institutional cultures influence responses to globalization. Two of the four universities, nurturing an entrepreneurial culture, showed the most systematic and extensive strategic response to the challenges of globalization. The fact that one of these universities also had elements of a bureaucratic culture did not inhibit the development of an effective strategic response. The university characterized as collegial and autocratic and one collegial/entrepreneurial university had a much more marginal strategic approach.

CONCLUSION

Bearing in mind that the evidence is limited to four universities, the findings support the notion of a relationship between

an entrepreneurial culture and the type of strategic response to globalization challenges. However, developing an appropriate comprehensive strategic response to globalization is not simply a matter of changing the culture. The literature on organizational culture shows that changes cannot happen overnight. Contextual factors such as governmental policies continue to play an important role.

Finally, there were indications in our research that culture and strategy may mutually reinforce each other: achievements in the area of internationalizing the curriculum, catering for student diversity, and other factors may reinforce an entrepreneurial spirit or help to spread an entrepreneurial culture across the university. Assuming that the four universities would like to broaden their internationalization portfolios, we recommended specific activities and strategies for each of the institutions. These recommendations ranged from making the vision and mission more explicit, developing appropriate budget allocations, giving internationalization a specific place (metaphorically and geographically) in the organizational structure, to developing strategic alliances with Canadian and/or foreign partners. ■

Postgraduate Studies in Africa: The Looming Crisis

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Academic staff shortage has become a huge challenge for African universities, and no respite seems to be in sight. In fact, observers of the higher education scene on the continent unanimously identify this issue as one of the most critical challenges to the mission of these institutions. They contend that, if urgent concerted action is not undertaken soon enough to address the problem, the African academy will not only lose its ability to produce the requisite number of personnel to support the countries' human resource needs, but the quality of intellectual life will continue to erode. The foregoing concerns call for evaluating how well African institutions are developing the next generation of academics to combat the decline and thereby boosting academic staff capacity and reinvigorating intellectual life. A critical area for such efforts, and the focus of this article, is postgraduate training. The sample is made up of 15 universities and seven countries that are members of the Partnership for Higher Education in Africa (see <http://foundation-partnership.org/>).

POSTGRADUATE STUDENT ENROLLMENT

Some institutions seem to be making progress on the number and proportion of these enrollments. At the University of Ibadan, the percentage of postgraduate students increased from 18 percent of the total student population in 2001 to 35 percent in 2006. Other institutions, however, are registering declining rates. At the University of Ghana, for example, the proportion of postgraduate students reduced from 14 percent in 2000 to 7 percent in 2008. At the University of Kwazulu-Natal, the decline consisted of 32 percent in 2000 to 26 percent in 2007. Postgraduate enrollment at Makerere University dropped from 7 percent to 5 percent between 2006 and 2007, while only 3 percent of students at the Catholic University of Mozambique, in 2008, were postgraduates. The percentage of postgraduate enrollment remains relatively low in all countries—15 percent in South Africa, 7 percent in Nigeria, and 4 percent in Ghana.

GENDER DISTRIBUTION

Apart from South African institutions, which are close to gender parity in postgraduate enrollments, the rest of the continent is characterized by male dominance. The University of Kwazulu-Natal saw a reduction in the proportion of postgraduate females, between 2000 and 2005, from 54 percent to 50 percent, while at the University of Dar es Salaam the proportion dropped from 35 percent to 27 percent between 2002 and 2007. Hopefully, these trends will recover upwards, instead of going down further. At the University of Ghana, females made up only 25 percent of postgraduate enrollments in 2000, growing to 33 percent in 2008.

These enrollments raise an even more sobering prognosis of the pipeline's potential to turn out adequate numbers of future academics.

MASTER'S AND DOCTORAL ENROLLEES AND PROGRAM CHOICES

Analyses of the distribution of students, by program level, give cause for concern. In 2008 doctoral students at the University of Ghana stood at only 6 percent of total postgraduate enrollment, a marginal increase from the 2000 figure of 5 percent. The proportion at the University of Kwazulu-Natal went up from 7 percent in 2000 to 10 percent in 2005. The proportion of doctoral-level enrollments among postgraduate students in South Africa, stagnated at 1 percent between 2000 and 2006. While master's degree enrollments have increased over the years, the percentage of postgraduate students constituting the potential pool from which to draw the next generation of academics (i.e., master's and doctoral students) is still very small.

These enrollments raise an even more sobering prognosis of the pipeline's potential to turn out adequate numbers of future academics. The majority of postgraduate students are

pursuing programs at levels and in fields that are considered to provide them with opportunities for career advancement outside of academe. An inordinate number, over the last decade, has been in professional management programs such as the master of business administration.

While postgraduate enrollments are a useful proxy for determining the potential pool of future academics, an even more crucial determinant is the percentage of students who complete their programs.

GRADUATION, RETENTION, AND COMPLETION RATES

The doctoral graduates, compared to their master's degree counterparts, represent quite a small proportion. Only 11 of postgraduate students at the University of Ghana received doctoral degrees at the University of Ghana in 2006, representing a mere 2 percent of the postgraduate cohort. Just 6 percent and 1 percent of postgraduates from Nelson Mandela Metropolitan University, in 2006, obtained master's degrees and doctoral degrees, respectively. The corresponding proportions for Stellenbosch University, in the same year, was 14 percent and 2 percent. In fact, only a quarter of postgraduate degrees awarded by South African institutions each year, between 2001 and 2006, were for master's programs, with a mere 1 percent for graduates of doctoral programs. The skewed gender distribution of master's and doctoral graduates is commonplace. Just 30 percent of the 182 doctoral graduates at the University of Ibadan, in 2006, were female. Only 34 percent of postgraduate degrees awarded at the University of Dar es Salaam went to females.

While postgraduate enrollments are a useful proxy for determining the potential pool of future academics, an even more crucial determinant is the percentage of students who complete their programs. The following illustration from the University of Kwazulu-Natal is instructive in alerting us to the need for such data and its importance for any strategic plans at growing the number of future academics. In the Faculty of Health Sciences at this university, the average dropout rates for thesis-based master's students, from 2000 to 2006, was about 56 percent while the corresponding figure for their doctoral counterparts was about 35 percent. With more than half of master's students and over a third of doctoral students dropping out of their programs, the next generation of academics is going to be negatively impacted. The statistics are even more worrisome when the related indicator of completion rates is assessed. The rates for thesis-based master's and doctoral students average about 11 percent and 10 percent, respectively, for the 2000–2006 period. With only a tenth of these cohorts graduating, there is obviously a huge disconnect

between intake and output, with serious implications for replenishing the professoriate with requisite numbers and appropriate levels of training.

CONCLUSION

Without a vibrant system of postgraduate training and viable strategies to support students for careers in academia, it will be nearly impossible to cultivate the next generation of academics. To regenerate academe, African tertiary institutions will not only have to improve the relative numbers, proportion, distribution, and quality of postgraduate students who enter but also ensure that these same characteristics are reflected in postgraduate output. Low enrollment, graduation, and time-to-completion rates, as well as high dropout rates in some programs, do not augur well for developing an adequate pool of high-quality future academics. Concerted efforts are needed to design and implement creative and complementary funding models, forward-looking curricula, and strategies for growing future academics. Increasing the low proportion of females in academe, for example, has to start with efforts at improving their numbers in postgraduate programs. Institutions' sensitivity and responsiveness to work-life circumstances and career development are particularly helpful in attracting and retaining the next generation of academics for the continent. ■

Burundi: Challenges and Conflicts

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With a population of almost 9 million people, Burundi is an East Central African nation, equivalent in size to Massachusetts. Located below Rwanda and on the shore of Lake Tanganyika in the Great Rift Valley, Burundi is one of the poorest countries in the world; the annual per capita income is US\$138. More than half the national budget comes from external grants and loans from developed countries and international funds.

Although Burundi gained independence from Belgium in 1961, ethnic tension—actively promoted during colonization—has retarded the nation's development through the past two decades. Like its neighbor Rwanda, Burundi has just emerged from a 12-year civil war between its two major ethnic groups, the Hutu (85%) and the Tutsi (14%). Historically, the Tutsi have maintained the upper hand in the society, but a new constitution adopted in 2005 has secured more equitable political representation. A cease-fire was signed in 2006 by Hutu

rebels, but tension still rules social relations in this bilingual (Kirundi and French) country.

THE EDUCATIONAL SITUATION

Burundi's educational system reflects not only its colonial and war-torn past but also its precarious and meager national fiscal situation. About 60 percent of the population is literate. The government provides noncompulsory primary education for children aged 7 to 12 years, but only 36 percent complete primary education. Secondary enrollments hover around 14 percent with most high schools being concentrated in Bujumbura, the capital. Education receives 18 percent of the national budget, half of which is shared by secondary and tertiary education.

With limited library and Internet resources in Burundi, students are disadvantaged in their dissertation research.

Enrollment in higher education institutions is extremely low; 1 percent of the 18- to 22-year-olds attend one of the four universities. Located in Bujumbura, the state-supported University of Burundi enrolls approximately 4,000 students. Three private universities were established within the last decade and have ties to religious organizations. Two are located in Bujumbura—Université Lumière de Bujumbura and Université d'Espoir—and both enroll about 2,000 students; the third, Université de Ngozi, resides in a rural town about three hours away. Located also in Bujumbura are a technical institute and the Supérieur Normale Institut.

ACADEMIC LIFE

The continuing ethnic volatility and the meager financial status of the nation negatively affect the resources of the public university but also plague the new private institutions. The government allocation primarily supports professorial salaries, which are scaled by rank. Thus, limited resources for capital expenditures result in spartan buildings, inadequate library resources, and almost nonexistent instructional technology. Inadequate Internet access and e-mail system drive faculty and students to employ Yahoo and Gmail accounts. Although professors may retrieve some online resources on campus, students must go to cybercafés to access the Internet.

With no advanced degrees offered in the country, students must earn their doctorates in Europe or the United States. A pipeline for doctoral study runs from Burundi to several Belgian universities. However, Belgian universities have instituted a new strategy to evade immigration problems. Referred to as the "sandwich system," doctoral students study in Belgium for three months, collecting scholarly information, and are compelled to return to Burundi for the rest of the year. With limited library and Internet resources in Burundi, students are disadvantaged in their dissertation research.