

Higher Education in Nigeria: A Status Report

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ABSTRACT

The government of Nigeria recently initiated higher education policy reforms intended to bring its university system more in line with international good practices. The reforms promote increased institutional autonomy, greater system differentiation, strengthened governance, and mechanisms for quality assurance. They seek to create a more flexible and responsive system of university teaching and research that, over time, will contribute increasingly to national innovation capacities, productivity gains, and economic growth. This paper reports on the current status of higher education in Nigeria and reviews the country's new policy initiatives in this context. The discussion gives particular attention to issues of access, teaching/learning, finance, and governance/management.

Keywords: Educational policy; Development; Higher education; Nigeria

Introduction

From a global perspective, economic and social development are increasingly driven by the advancement and application of knowledge. Education in general, and higher education in particular, are fundamental to the construction of a knowledge economy and society in all nations (WORLD BANK 1999). Yet the potential of higher education systems in developing countries to fulfill this responsibility is frequently thwarted by long-standing problems of finance, efficiency, equity, quality and governance. Now, these old challenges have been augmented by new challenges linked to the growing role of knowledge in economic development, rapid changes in telecommunications technology, and the globalization of trade and labor markets (SALMI 2001).

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Email addresses: wsaint@worldbank.org (W. Saint), thartntt@memphis.edu (T. Hartnett), Erich.Strassner@bea.gov (E. Strassner). The findings, interpretations and conclusions expressed herein are entirely those of the authors and should not be attributed in any manner to the institutions that employ them, or to their governing boards or affiliated organizations.

Knowledge has become the most important factor for economic development in the 21st century. Through its capacity to augment productivity, it increasingly constitutes the foundation of a country's competitive advantage (PORTER 1990). This change is most evident in OECD countries, where investments in the intangibles that make up the knowledge base of a country (e.g., research and development, higher education, computer software, patents) are equaling or even exceeding investments in physical equipment (OECD 2001). Developing economies, while affected by these transformations, are not yet reaping their benefits. This is because the capacity to generate and harness knowledge in the pursuit of sustainable development and improved living standards is not spread equally among nations. In 1996, OECD countries accounted for 85% of total R&D investment; China, India, Brazil, and East Asia represented 11%; and the rest of the world only 4%. Advanced economies enjoy the fruits of a self-promoting cycle in which the benefits of research help produce the wealth and public support needed to enable continued investments in R&D (ROMER 1990).

In contrast, many developing countries have neither articulated a development strategy linking knowledge to economic growth nor built up their capacity to do so. Nigeria is one of these. Although it is Africa's largest country with 20 percent of the region's population, Nigeria has only 15 scientists and engineers engaged in research and development per million persons. This compares with 168 in Brazil, 459 in China, 158 in India, and 4,103 in the United States (WORLD BANK 2002a:Table 5.11). What chance does Nigeria have of participating in the emerging global knowledge economy? A review of the country's past and present higher education policies may provide part of the answer.

Following years of questionable higher education policies under various military administrations, recent initiatives by Nigeria's democratically elected government of Olusegun Obasanjo suggest policy movement in the right direction. This paper reports on the present condition of higher education in Nigeria and assesses the new policy initiatives against this backdrop. It begins by providing an overview of the country and its higher education system. It then proposes a simple framework for identifying key issues and analyzes available data in this context. It concludes with a summary assessment and suggestions for further improving system performance.

Country context

With a population of 120 million and ample natural resources, Nigeria is Africa's sleeping economic giant. It is also a somewhat deformed giant. While one-third of its population pursues a life style oriented in various degrees towards Europe and North America, the other two-thirds struggles to

survive on less than one dollar per day (WORLD BANK 1996). Wrapped in a culture noted for industry, creativity and initiative, some Nigerians prefer to apply these talents to questionable or illicit pursuits, while many others expect government to provide the cure for their economic and social ills.

Consequently, the country's business environment is distorted and restrictive. In spite of substantial oil revenues, per capita income is lower today than it was in 1970. The non-oil economy is stagnant. A survey of international businesses working in Sub-Saharan Africa found that Nigeria is one of the most difficult countries in the world for private business (CENTER FOR INTERNATIONAL DEVELOPMENT 2000). On balance, the material conditions for development appear to be available, but the human and cultural conditions that enable development to occur are not yet in place.

In recent years, the economic success of newly industrializing nations (e.g., the "Asian tigers") has been linked to substantial prior investment in human resources. These strategic investments, together with particular institutional and policy choices concerning the nature of the university system, the extent of intellectual property protection, the historical evolution of industrial R&D organization, and the division of labor between private industry, universities and government in R&D performance and funding combine to form what is called a "national innovation system" (NELSON 1993:9). Research suggests that public policy plays an important role in shaping national innovative capacity by determining human capital investments and creating incentives for innovation. Countries that have increased their innovative capacities have invested heavily in science and engineering education, and also in promoting competition as the basis for innovation (STERN et al. 2000:33).

Does Nigeria possess the necessary elements to develop a national innovation system? The facts are not encouraging. Available data indicate low levels of investment in research capacity and education, and help to explain why the country's non-oil economy has remained consistently sluggish during a decade of international economic expansion. On the research side, Nigeria's number of scientific publications for 1995 was 711 – significantly less than its output of 1,062 scientific publications in 1981 by a comparatively much smaller university system (TASK FORCE 2000). In contrast, scientific publications were 3,413 for South Africa, 14,883 for India, 310 for Indonesia, and 5,440 for Brazil (TASK FORCE 2000). The country's low research output probably reflects the low priority accorded to research and development by government decision-makers. For example, Nigeria's federal university system spends only 1.3% of its budget on research (HARTNETT 2000).

For education, Nigeria spends an estimated 2.4% of its GNP while Sub-Saharan Africa as a whole spends 5.1% (HINCHLIFFE 2002; UNESCO 2000).¹ In Nigeria, primary education enrolls 81% of the relevant age group and graduates 69% of these. Therefore just over half of all children complete primary school. School drop-out rates have been rising and educational standards have reportedly declined (ONWEH 1997). Secondary education enrollments grew at roughly 10% yearly during the 1990s, but access remains constrained (less than half of secondary school age children attend school) and significant regional disparities in access are evident. Technical education is substantially neglected by policymakers and oriented to the teaching of traditional hand skills that are often divorced from labor market requirements. Higher education enrolls a very modest 4% of the relevant age cohort. This level compares poorly with economic competitors such as South Africa (17%), India (7%), Indonesia (11%) and Brazil (12%) (TASK FORCE 2000). The elements of a national innovation system are clearly not yet in place. In this, politics has played a part.

Legacy of the military era

Political interventions in the higher education system under a series of military governments imposed distortions and constraints on the system's development. By 1980, Nigeria had established a well-regarded higher education system offering instruction at an international standard in a number of disciplinary areas. The universities of Ibadan and Ahmadu Bello, for example, earned global recognition for their research in tropical health and agriculture, respectively. Under successive military governments during the 1980s and 1990s, however, this sparkling reputation steadily tarnished. Acquiescing to the political pressures of social demand for access, the system was permitted to expand rapidly. Enrollments grew at an annual rates of 12 to 15 percent. Between 1980 and 1992, an additional 11 universities were established, some of them seemingly on an *ad hoc* basis. Government interference in university affairs (e.g., the direct appointment of vice-chancellors and, in some cases, of military "sole administrators") steadily increased. As university autonomy was usurped by central government, incentives and rewards for research productivity, teaching excellence and associated innovation gradually disappeared. In consequence, research output dropped, educational quality declined, and management structures rigidified.

¹ Data included in this paper are the best available, but may not always be reliable. Although the National Universities Commission provides a valuable service in periodically compiling and publishing higher education statistics, the reliability of these data depends on the accuracy and timeliness of university reporting, which vary considerably among institutions.

The hierarchical command structure of the military governments pervaded all aspects of the public service. In higher education, the National Universities Commission (NUC) evolved in consonance with this centralized model. Created in 1962 and reconstituted as a statutory body in 1974, the NUC was originally intended to function as a modest university grants commission, advising government on policy issues, defining norms for quality assurance, channeling block grants from government to the universities, and ensuring the balanced and coordinated development of the system. By the end of the military era in 1998, it had become a large and unwieldy organization that was involved in all spheres of university endeavor. It micro-managed institutional finances through a series of predetermined expenditure guidelines and constant expenditure monitoring. It was involved in the selection of institutional leaders and members of governing councils. Its approval was required for all new university course offerings and for the physical development plans for each campus. It participated in the negotiation of staff salaries with the various academic unions. Along the way, the NUC's governing board was dissolved in 1992, leaving it accountable solely to the Minister of Education and the Head of State.

As university autonomy was steadily compromised, academic staff and student organizations voiced public criticism of the regimes in power. Perhaps because these groups were viewed as bases for potential opposition to military rule, universities suffered a progressive erosion in the purchasing power of their budgets. Between 1990 and 1997, for example, the real value of government allocations for higher education declined by 27% – even as enrollments grew by 79%. The result was a precipitous fall in the quality of university education and research, as implied by the 62% drop in the real value of recurrent expenditure per student during this period (HARTNETT 2000). Downward pressure on staff salaries, together with deteriorating working conditions and political repression on campus, generated a series of staff and student strikes during the 1990s, culminating in year-long closures of the university system in 1992 and 1996 (ONI 2000b). Meanwhile, growing corruption and human rights abuses by the regimes in power provoked international sanctions that made overseas travel by Nigerian citizens difficult. One unintended outcome of this ostracism was to isolate the country, including its universities, from global intellectual currents and access to knowledge during much of the 1990s.

Recognizing the severity of the problems besetting the university system, military heads of state appointed presidential commissions in 1991 (the Grey-Longe Commission) and again in 1996 (the Etsu-Nupe Commission) to analyze the problems and recommend reforms. In both instances these

commissions submitted thoughtful and constructive recommendations, but the governments of the day chose not to act on them.

Higher education policies since 1998

The year 1999 brought a democratically elected government to Nigeria for the first time in 15 years. With it came the political will to tackle the nation's long-festering higher education difficulties. Indeed, the present government has instituted more policy and institutional reforms in higher education than the combined governments of the previous two decades. Among its more notable actions are institutional audits of all universities and associated parastatal bodies, revocation of the vice-chancellors' former privilege of personally selecting 10% of each year's student intake, reconstitution of all university governing councils with broader representation, the licensing of seven private universities, exemption of university staff from public service salary scales and regulations, and a 180% increase in funding of the university system that raised per student allocations from the equivalent of USD 360 to USD 970 per year (FEDERAL REPUBLIC OF NIGERIA 2001).

Crowning these efforts was a new *Government Policy on Autonomy for Universities* announced on July 21, 2000 (FEDERAL MINISTRY OF EDUCATION 2000). This forward-looking policy framework gives university councils full responsibility for institutional governance, including the appointment of senior officers; restores block grant funding to universities; circumscribes the powers of the National Universities Commission; vests university senates with the authority to decide on curricula; returns to universities the right to set admissions criteria and select students; and lays the groundwork for new minimum academic standards.

In March 2002 a National Summit on Higher Education was held to examine specific policy issues arising from the government's university autonomy policy. A reported 1,200 stakeholders attended, representing students, parents, academic staff, management, government and employers. Topics addressed included management, funding, access, curriculum relevance, and social problems (FEDERAL MINISTRY OF EDUCATION 2002).

In May 2002, a resulting set of legislative proposals designed to reform existing higher education laws and establish a permanent legal basis for these changes was approved by the Federal Executive Council and forwarded to the National Assembly for deliberation. The proposals reportedly would give university councils the responsibility for setting institutional policies, hiring top management, and

forwarding institutional budgets; give institutions control over their own student admissions, limit the role of the NUC to quality assurance and system coordination; place curbs on the right of employees to strike; and legally de-link the universities from the public service, thereby ending their adherence to government regulations regarding employment, remuneration and benefits (GUARDIAN 2002). As far as higher education is concerned, Nigeria is finally a country on the move.

The present higher education system

Nigeria possesses the largest university system in Sub-Saharan Africa. Although South Africa's tertiary enrollments are higher, Nigeria boasts more institutions.² With 48 state and federal universities enrolling over 400,000 students, its university system supports numerous graduate programs (9% of enrollments) and serves as a magnet for students from neighboring countries. The system embraces much of the country's research capacity and produces most of its skilled professionals. Although nominally the responsibility of the Federal Ministry of Education, it is supervised by the National Universities Commission (NUC), a parastatal buffer body. A Joint Admissions and Matriculation Board administers a national university entrance examination and informs universities of applicant scores. A National Education Bank (formerly the Nigerian Student Loan Board) is charged with providing merit scholarships and student loans. Surveying this system and its institutional arrangements well over a decade ago, the World Bank concluded that “more than any other country in Sub-Saharan Africa, the structures exist in Nigeria that could provide for a rational and effective development of university education” (WORLD BANK 1988:3).

In practice, however, the university system developed less rationally than anticipated. Enrollments in the federal universities (34% female, 59% in sciences) grew at the rapid rate of 12% annually during the 1990s and totaled 325,299 students by 2000 (NUC 2002b).³ Enrollment growth rates were the highest in the South-South Region, followed by the North-East Region. Overall growth rates far exceeded government policy guidelines, as shown in Table 1.

² Nigeria's entire tertiary education system (federal, state and private) comprises 220 institutions: 17 federal universities, 4 federal universities of technology, 3 federal universities of agriculture, 1 national open university, 4 national centers for specialized tertiary instruction, 16 state universities, 7 private universities, 1 military university, 17 federal polytechnics, 27 state polytechnics, 7 private polytechnics, 22 federal teacher training colleges, 38 state teacher training colleges, 4 private teacher training colleges, 36 colleges of agriculture, 12 specialized training institutes, and 4 parastatal supervisory agencies. The government traditionally categorizes its federal universities into groups based on their dates of establishment, as follows: 1st Generation (Benin, Ibadan, Ile-Ife, Lagos, Nsukka, Zaria); 2nd Generation (Calabar, Ilorin, Jos, Kano, Maidugari, Port Harcourt, Sokoto); 3rd Generation (Abeokuta, Abuja, Akure, Akwa, Bauchi, Makurdi, Minna, Owerri, Umudike, Uyo, Yola).

³ In comparison, state university enrollments totaled 104,776 in 1997/98, accounting for 28% of Nigeria's total university enrollments in that year (NUC 2002b).

[insert Table 1 here]

Rising student numbers generated an enrollment ratio of 340 per 100,000 persons (Asia averages 650 and South Africa 2,500) and an average staff/student ratio of 1:21 (sciences 1:22; engineering 1:25; law 1:37; education 1:25). In terms of academic disciplines, the highest rates of enrollment growth occurred in the sciences and in engineering. As a result, the share of science and engineering in total enrollments rose from 54% in 1989 to 59% in 2000, consistent with national policy targets (NUC 2002). Much of this expansion centered in the South-East Region, where a combined annual growth rate of 26.4% in science and engineering led the nation.

However, efforts to expand enrollments and improve educational quality are severely constrained by growing shortages of qualified academic staff. Between 1997 and 1999, the numbers of academic staff declined by 12% even as enrollments expanded by 13%. Long term brain drain, combined with insufficient output from national postgraduate programs in the face of rising enrollments, has left the federal university system with only 48% of its estimated staffing needs filled. Staffing scarcity is most acute in engineering, science and business disciplines. Shortfalls are estimated at 73% in engineering, 62% in medicine, 58% in administration, and 53% in sciences. In contrast, no staffing shortages exist in the disciplinary areas of Arts and Education (NUC 2002b).

The cost of running the federal university system totaled \$210 million in 1999.⁴ Financing for that system comes almost entirely from the federal government. As a result of enrollment growth and currency devaluation, recurrent allocations per university student in the federal system fell from \$610 to \$360 between 1990 and 1999 – with obvious implications for educational quality. However, agreements covering university salaries and teaching inputs negotiated with government by the Academic Staff Union of Universities (ASUU) in 2001 have raised this amount close to a much healthier \$1,000 per student annually (FEDERAL REPUBLIC OF NIGERIA 2001).

Federal university revenues are received mainly from three sources: the federal government (84%); income generation activities (7%); and various student fees (9%) – even though no undergraduate tuition fees are charged. In 1992, student fees had represented just 2% of revenues. Equally attention-

⁴ Projected expenditures for 2002 are approximately \$260 million (*Daily Trust*, July 9, 2002).

grabbing is the fact that, in real terms, capital budgets for federal universities surged by 40% during the 1990s. This is the combined result of special campus refurbishment and rehabilitation grants of substantial size, awards for university capital projects from the now-defunct Petroleum Trust Fund, and similar grants from the recently operational Education Tax Fund.⁵ This trend of increasing financial support for the system appears likely to remain during the coming years. In August 2002 the NUC announced that the federal universities would receive an additional 7.2 billion naira (USD 60 million) from government in 2003 and 2004 for the completion of capital projects (GUARDIAN 2002b).

Patterns in the structure of university expenditures have improved steadily during the last decade. Whereas in 1991 academic expenses accounted for 49% and administration absorbed 46% of total expenditures, by 1999 these shares were 62% and 35% respectively. In the process, the portions devoted to teaching support and to library development showed positive gains across the system. Direct teaching expenditure per student, however, differed considerably among institutions. In 1997/98 funds spent on direct teaching ranged from a low of 137 naira (\$2) per student at Sokoto to a high of 1,683 naira (\$21) at Maiduguri. The system-wide weighted average was 331 naira (\$4) per student (HARTNETT 2000). Overall, the NUC expenditure guidelines appear to have had a salutary effect, although adherence to them seems to have varied considerably among institutions.

Nevertheless, when the financing of higher education is placed within the context of overall education sector financing, the picture becomes less heartening. Although tertiary education presently receives a larger share of the education budget, the latter's portion of the federal budget has diminished. Over the past four decades, various Nigerian governments have increased university subventions at the expense of investments in primary and secondary education, as they struggled to maintain financial support in the face of burgeoning higher education enrollments. Using data from 1962, Callaway and Musone (1965) concluded that Nigeria's education expenditure represented 3.5% of GDP and 15.2% of total government expenditure. Of this amount, 50% was allocated to primary education, 31% to secondary education, and 19% to tertiary education. Today, Hinchliffe (2002) estimates that education expenditure is equal to only 2.4% of GDP and 14.3% of government expenditure. The share of these funds going to primary education has dropped to 35% and secondary education's portion has remained relatively unchanged at 29%, but tertiary education's share has nearly doubled to 35%.

⁵ The Education Tax Fund is financed by a 2% levy on pre-tax earnings of firms with more than 100 employees; half of these funds are earmarked for higher education.

Nigeria's recent allocation shares for education diverge sharply from regional and international norms. This divergence begs justification. For example, UNESCO's *World Education Report 2000* indicates that for 19 other countries of Sub-Saharan Africa, education expenditures averaged 5.1% of GDP and 19.6% of total government expenditures. On average, these countries allocated 21% of their education budgets to tertiary education. In comparison with other African nations, Nigeria's funding effort on behalf of education is less than half as vigorous and its budgetary priority for the education sector is lower, but tertiary education receives a much higher share of these comparatively smaller amounts of national resources.

A framework for assessment

In 1993, Clark Kerr, an internationally recognized higher education expert from the United States, threw down a gauntlet of challenge for higher education systems around the world. He said:

“For the first time, a really international world of learning, highly competitive, is emerging. If you want to get into that orbit, you have to do so on merit. You cannot rely on politics or anything else. You have to give a good deal of autonomy to institutions for them to be dynamic and to move fast in international competition. You have to develop entrepreneurial leadership to go along with institutional autonomy.”

Inherent in Kerr's statement is a call for universities to become more flexible and responsive. A similar call to action constitutes a central message in the World Bank's new technical paper, *Constructing Knowledge Societies: New Challenges for Tertiary Education* (WORLD BANK 2002). But how do we assess higher education flexibility and responsiveness?

El-Khawas (2001) offers a framework for generating answers to this question. She distinguishes between *rigid* institutions of higher learning and *responsive* institutions. A rigid institution resists making changes in institutional behavior and often rejects possible changes without openly considering whether they are feasible or desirable. A responsive institution, on the other hand, is adaptive in its orientation. It intentionally considers changing circumstances, identifies appropriate ways to adapt, and takes responsive actions. El-Khawas goes on to posit the use of four categories for assessing responsiveness: access, teaching/learning, financing, and management/governance. These

four categories provide a heuristic tool for appraising the performance of Nigeria's present university system.

Assessing university responsiveness in four areas

- *Access*

Responsiveness to the challenges of improving university access entails adaptive behavior by institutions to provide academic and other support to an increasingly diverse student body, and to develop retention strategies that lead to the completion of studies (EL-KHAWAS 2001). It further implies efforts to upgrade labor productivity by creating opportunities for the nation's workforce to obtain continuing professional education.

Both the government and its citizens see the current enrollment ratio for higher education (4%) as too low. They tend to compare Nigeria with other oil-producing developing countries such as Indonesia and Brazil, where higher education enrollment ratios are 12 - 14%. Social pressures for expanded access are intense, with only one out of nine qualified candidates obtaining admission to university study.

In response to strong social demand, the Federal Government has repeatedly taken steps to expand access. Among its more notable policy actions have been: (i) increasing the numbers of federal universities, (ii) expanding enrollments, (iii) introducing an admissions quota system to address regional and class imbalances, (iv) constructing new student residence halls, (v) launching a scholarship program for 50,000 needy students, (vi) approving the establishment of seven private universities, and (vii) announcing the establishment of a National Open University.⁶ The latter two actions are particularly significant. They signal steps towards the healthier diversification of a previously rather standardized system, and create vehicles for the eventual delivery of continuing professional education. The importance of these changes is supported by the fact that workforce development is viewed by many economists as a necessary step towards improved productivity in order to gain position in a highly competitive global economy (PORTER 1990).

⁶ A detailed analysis of Nigeria's substantial potential for the development of tertiary distance education is provided in Butcher and Wali (2001).

The matter of quota-based admissions deserves further comment since it also bears directly on educational quality. Until the advent of the current government's university autonomy policies, admission to federal universities was regulated by the Joint Admissions and Matriculation Board. The Board reserved 30% of a university's admissions for residents of its immediate geographical or "catchment" area, and a further 20% for educationally disadvantaged students. Some 10% of university admissions were made at the Vice-Chancellor's discretion. Only 40% of students were admitted on the basis of the merits of their academic performance. Evaluating these admissions policies, Adeyemi (2001) found significant differences in academic performance between students admitted on merit and those admitted on other criteria. He also discovered that the drop-out and repetition rate for the latter group was three times higher than for the merit-based group. Although Nigeria's quota-based admissions policy may have made university access somewhat more equitable, it did not necessarily broaden the possibilities for academic success among those admitted. As a result, although access has increased, university responsiveness to the varied needs and abilities of a more diverse student body produced by rising enrollments has been limited.

- *Teaching and Learning*

Responsiveness in terms of tertiary teaching and learning has two dimensions: curricula and pedagogy, i.e., content and method. In today's globally competitive knowledge economy, updating of curricula needs to be an almost permanent undertaking. Clark (2001) suggests that university departments will need to change their curricula every two or three years in order to ensure that the content of their teaching reflects the rapidly advancing frontiers of scientific knowledge. From the standpoint of pedagogy, expanded access and higher participation rates mean that student populations will become increasingly diverse in terms of their academic preparation, means, capacities, motivation and interests. At a global level, these changes are fueling a shift in pedagogical emphasis from staff teaching to student learning (EL-KHAWAS 2001; SALMI 2001).

In Nigeria, three pieces of evidence suggest the need for greater attention to innovation in both curricula and pedagogy. First, student success seems limited. Dropout rates appear to be high. Although institutional statistics are notoriously unreliable and universities do not monitor their dropout rates, the NUC attempted in 2002 to calculate dropout rates within the federal university system. Its preliminary findings suggested that dropout rates may be as high as 50% at six universities. Dropout rates of 10% or less were attributed only to the three federal universities at Kano, Maidugari and

Owerri (NUC 2002b). Plainly, additional research attention to this issue of institutional performance and system efficiency would seem warranted.

Second, public and private employers of university graduates, as well as the government itself, consider the quality of university graduates to be inadequate. A study of the labor market for graduates found that employers believe "university graduates are poorly trained and unproductive on the job, ...and shortcomings are particularly severe in oral and written communication, and in applied technical skills" (DABALEN, ONI AND ADEKOLA 2000). Labor market demand for degree-based professional skills over the period 1991 – 1999 centered largely in engineering, business administration, health services, accounting and marketing (ONI 2000a). During the same period, however, 49% of the supply of graduates produced by federal universities was concentrated in Arts, Education, Law and Social Sciences.⁷ The mismatch is clear. Under these conditions, the labor market annually absorbed just 10% of all graduates produced by the entire education system (ONI 2000a). University graduates fared better, but their unemployment was still estimated to be 22% in 1998 (DABALEN, ONI AND ADEKOLA 2000).

Such findings suggest the need for adaptive university responses vis a vis the labor market for public and private employment. As one African observer has noted, "The supply of education services is market blind. Admission policies of higher education institutions are not related to labor demand requirements, nor to individual student interests, but mainly to secondary school grades" (BOATENG 2002). Elsewhere in the world, emerging institutional adaptations to the problem of labor market mismatch include the formation of "knowledge coalitions" with other knowledge producing centers in society (CLARK 2001),⁸ the establishment of more effective labor market information systems linked to career counseling in universities, and greater private sector involvement in curriculum consultations, faculty attachments, student placements, and research funding (BOATENG 2002).

Third, the university curriculum lacks quality. The National Universities Commission completed a nationwide accreditation exercise in 2000 that revealed widespread shortcomings in curriculum (NUC 2002b). Strikingly, only 11% of the 1,185 academic programs reviewed were given full accreditation. This was a notable decline from the 21% of 830 academic programs that received full accreditation during the previous review in 1990-91 (NATIONAL UNIVERSITIES COMMISSION 1992). Utilizing its

⁷ Authors' calculations based on 1997/98 data from the National Universities Commission.

⁸ Knowledge coalitions and similar types of collaborative institutional networking have been more extensively analyzed by Michael Gibbons (1998) under the label of "mode 2" knowledge generation.

current assessments, the NUC also ranked the country's 36 federal and state universities on the basis of academic quality. The five top-ranked institutions in 2000 were respectively the University of Agriculture, Abeokuta; the University of Agriculture, Umudike; the University of Nigeria, Nsukka; the University of Lagos; and Abukakar Tafawa Balewa University, Bauchi. Surprisingly, the highly regarded University of Ibadan was relegated to 16th place.⁹

The factors responsible for the poor quality of university programs (and graduates) appear to be both internal and external to the universities. Internal factors include strikes, lack of employee motivation, and weak accountability for educational performance. External factors comprise teacher shortages, corruption, inconsistent funding efforts by government, and admissions based on quotas rather than merit (ONI 2000a).

The present government has aggressively addressed these identified problems through a series of policy changes. For example, it has reconstituted all university councils to incorporate broader stakeholder representation, accorded greater autonomy to university councils and managers in the effort to promote institutional responsiveness, and adopted a formula-based block grant resource allocation procedure that facilitates strategic planning and rewards institutional performance. It has returned to university senates the power (previously held by the NUC) to determine curricula and to initiate or terminate courses. It has also established reference points for quality improvements and begun to develop academic benchmarks based on demonstrated student competencies. Government statements also promote the need for university service to and partnerships with the private sector.

At the same time, the National Universities Commission is laying the foundation for the Nigerian Universities Network (NUNet), an electronic network that will eventually link federal, state and private universities, research and training centers and other subscribers, and provide them with Internet connectivity. NUNet is expected eventually to boost the quality and relevance of higher education teaching and research, as well as to facilitate the expansion of an aggressive new national distance education policy announced by the Minister of Education in June 2001.

Unfortunately, these policy initiatives to enhance educational quality are hampered by a severe shortage of qualified academic staff within the university system. Institutional deterioration and salary

⁹ During the 1970s the University of Ibadan benefited from a ten-year institutional support program financed by the Rockefeller Foundation which was intended to make it a regional center of excellence. The Rockefeller evaluation of this program in 1979 concluded that Ibadan had the best qualified staff of any university in Sub-Saharan Africa, excluding South Africa (Coleman 1993:92).

erosion during the past decade have prompted substantial "brain drain" of academic staff and impeded new staff recruitment. Between 1988 and 1990, over 1000 lecturers left the federal university system (BANGURA 1994), and this trend has continued. An estimated 30% of approved academic positions are presently vacant. Using its staffing norms per academic discipline, the NUC calculates a staffing shortfall of 51% within the system (NUC 2002b).

Slow growth in academic staff numbers during a period of rapid enrollment growth contributed to these problems. Between 1987/88 and 1997/98, system enrollments surged by 12% annually while staffing grew at just 3% a year. During this decade, total academic staff (headcount) increased from 9,612 to 13,515, and total student enrollment (headcount) doubled from 130,731 to 267,730.¹⁰ The annual rate of staffing growth was most rapid in the North-East Region (5.0%) and nearly stagnant in the South-West Region (1.3%). The diverging growth rates of staff and student numbers generated a decline in staff/student ratios from 1:14 to 1:20. Staff/student ratios were particularly imbalanced within the federal universities at Owerri (1:35), Port Harcourt (1:28), Benin (1:27) and Kano (1:27) (HARTNETT 2000). By 2000, system enrollments reportedly had reached 325,299, academic staff numbers totaled 13,760, and the overall staff/student ratio had fallen to 1:24 (NUC 2002b).¹¹

Several universities have faced severe difficulties in recruiting and retaining academic staff. For example, Obafemi Awolowo University in Ife experienced an academic staff increase from 962 to 973 (1%) between 1988 and 1998, while its enrollment surged by 56%. Similarly, staffing at the University of Lagos barely changed from 705 to 725 (3%) during this decade, even as its enrollment ballooned by 43% (HARTNETT 2000).

Various factors have combined to cause these staffing difficulties. One has been the relatively low level of academic salaries during the past decade and the declining financial attractions of university employment in comparison to other opportunities. In 1997, for example, teaching staff earned between \$375 and \$625 per year (ONI 2000:221). Another has been the rising workloads associated with deteriorating staff/student ratios. Others include the destabilizing influence of unionized staff militancy over salary issues, the waning attractiveness of academic careers in the absence of meaningful research activities, and the difficulty of maintaining one's intellectual capital in isolation from rapid global advances in disciplinary knowledge. In addition, it must be anticipated that current

¹⁰ Just 15% of academic staff were female in 1998, up from 12% in 1988 but proportionately far below the one-third female share of enrollments. In 1998, the highest percentage of female enrollment (46%) was found at the University of Nigeria (HARTNETT 2000).

¹¹ This compares with an average staff/student ratio of 1:30 among the state universities (NUC 2002b).

staffing shortages will worsen as a consequence of the quickly rising presence of HIV/AIDS on university campuses.¹²

In sum, Nigeria's federal university system is performing poorly in the area of teaching and learning. This is true not only in terms of the traditional quality standards for customary curricula employed in NUC accreditation exercises, but also in terms of labor market absorption and employer assessments of graduates. This provides a very weak base from which to launch responsive actions aimed at introducing the new curricula, reformed content, and different approaches to pedagogy required for competitive performance in the 21st century.

- *Financing*

A responsive model for financing higher education should address three broad areas of public interests: (i) the need to provide hope and educational opportunity to ever larger segments of a country's population, i.e., increase access; (ii) the need to encourage (and possibly subsidize) study in certain fields important to a country's economic development; and (iii) the need to ensure a steady flow of talent into careers – such as medicine or teaching – where dramatic shifts in supply and demand can negatively affect the quality of life for a country's people (EL-KHAWAS 2001:244).

In Nigeria, these three needs have been only partially addressed. As noted above, access has certainly increased both in terms of total enrollments and in terms of disadvantaged groups benefiting from admissions quotas. However, financial instruments such as student loans, scholarships or cross-subsidy by wealthier fee-paying students have not yet been effectively employed to help students of limited means to take advantage of these opportunities. This may be one reason for the apparently high dropout rates noted above. Likewise, government funding of higher education has neither been guided by criteria linked to strategic national priorities, nor by a concern to attract talent (teachers as well as students) into careers linked to the public good.

Historically, university funding has been distributed in broadly equitable ways across both institutions and disciplines with little concern for their performance. The result has been to create a system of excessively homogeneous institutions. This approach, although perhaps justifiable in terms of fairness

¹² The nationwide incidence of HIV infection is estimated at 5.0%, but varies widely from one region to another. The relatively unsupervised concentration of sexually active young adults on university campuses creates fertile conditions for HIV infection rates above the national average.

or useful in reducing competitive tensions and political appeals surrounding the allocation process, does not serve the country's longer term development interests. For example, just 10% of academic programs of potentially strategic development importance were accredited in 2000 (NUC 2002a).¹³ Without disciplinary capabilities approaching international standards in at least a few key professions necessary to underpin economic growth, it is difficult to see how Nigeria will be able to compete successfully in the global knowledge economy.

The source of these problems can be traced largely to insufficient funding of the higher education system.¹⁴ In fact, funding shortfalls have been the norm for many years as enrollments have increased more quickly than the government's capacity to maintain its proportional financial support. Simply put, the system has not had the financial resources necessary to maintain educational quality in the midst of significant enrollment expansion. These funding constraints have been mainly the result of government insistence that it remain as virtually the sole source of financial support for institutions of higher learning. During the 1990s, for example, up to 93% of university funding was provided by the federal government.¹⁵ In current value terms, the government's recurrent grants to federal universities would appear to have increased dramatically, from 530 million naira in 1988 to 9.6 billion naira in 1999. In real terms, however, total recurrent grants per student in 1999 were at only one-third of their 1990 level. Thus, increased budgetary allocations have been muted by the effect of rising enrollments. Chart 1 presents these trends in federal university enrollments, total system funding, and recurrent expenditure per student during the 1990s.

[insert Chart 1 here]

When government funding becomes insufficient to maintain institutional performance in teaching and research, universities elsewhere in the world have sought to supplement their public funding with locally generated income (fees, cost-recovery, business income, investment income, gifts, etc.). This

¹³ Although petroleum exports account for nearly one half of Nigeria's GDP, only one out of six programs in petroleum, mining and production engineering were awarded full accreditation. Although agriculture generates 30% of GDP, just five out of 38 programs in agriculture and forestry were fully accredited. Disciplines necessary for business development and economic management fared no better. For accounting, 2 programs fully accredited out of 17 reviewed; for banking, none out of 14; for business administration, 4 out of 20; for economics, none out of 26 (NUC 2002a).

¹⁴ Insufficient funding has been compounded by inefficient management and an absence of strategic vision.

¹⁵ In this regard, Burton Clark (2001:14) has stated categorically, "Let us be clear: a high degree of financial dependence on a single mainline source is a flawed way to construct a self-reliant university."

is also true in Nigeria. Locally generated income has contributed a relatively constant share of around 15% of universities' recurrent budgets in recent years, varying among institutions from a low of 4% to a high of 37% (HARTNETT 2000). In spite of active verbal encouragement from government to increase local income generation, it appears that the universities' capacity to generate revenues in this way may have been reached.

The principal untapped source of university financing remains undergraduate student tuition fees, which government prohibits.¹⁶ Its potential is considerable. Already, income from student fees (for non-degree, distance education, and postgraduate courses only) has risen from 4% to 10% of total income between 1988 and 1998 (HARTNETT 2000). Additional gains are possible. For example, asking the wealthiest one-third of university students to pay tuition fees equal to one-half of the government's contribution per student (i.e, about \$390) would increase system-wide resources by 14%. Similarly, asking the middle one-third of income-ranked students to pay tuition equal to one-third of government's contribution per student (i.e., about \$260) through participation in a student loan program would increase university financing by an additional 10%. Assuming that government's contribution remains undiminished, tuition fees structured in this way hold the potential of increasing the universities' recurrent budget by 24%. This would translate into an increase from about \$900 to \$1,116 in terms of recurrent expenditures per student, including for the remaining one-third of students who would pay no fees.

At this point, it seems clear to many observers that more creative and adaptable financing strategies are needed in order for Nigerian higher education to offset the likely risks of declining educational quality, resource use efficiency, and learning effectiveness that it now confronts. Institutional responses to resource constraints can range from simple belt-tightening to further income diversification, and beyond to creative entrepreneurship. What progress has Nigeria registered on this front?

To tackle the system's funding limitations, the government announced its decision in July 2000 that institutions were henceforth awarded administrative and financial autonomy. They were now expected to specialize in areas of comparative advantage that will be identified through participatory strategic planning processes, and government's future budgetary allocations would consider institutional performance in this area. Government further announced an increase in university funding to a level

¹⁶ Tuition fees were once the norm, but were abolished in 1978 when windfall oil revenues created a temporary governmental largesse.

of \$900 per student, and urged universities to generate an additional 10% of their recurrent budget from income-producing activities (several urban universities have already surpassed this target). These steps are important because institutional autonomy without revenue diversification can ring hollow, and because when funding is insufficient, the need for strategically determined expenditures becomes all the more necessary. In other words, the benefits of government's new autonomy policy will only be captured through active strategic planning by universities.

However, government's policy approach with regard to tuition charges has been cautious and carefully conditioned. This is because cost-sharing with students remains highly contentious within the country's fragile democratic environment. For this reason, government has stated "While student fees and charges remain a legitimate source of revenue for universities in an environment in which they enjoy autonomy, government policy for the time being is that before fees can be re-introduced or charges can be raised, the students and their sponsors must be economically empowered to be able to pay such fees and charges. This empowerment entails a visible improvement in the take-home pay of workers as well as adequate scholarship and student loan schemes..." (FEDERAL MINISTRY OF EDUCATION 2000).

- *Management/Governance*

Responsive university systems around the world have been moving towards more business-like forms of management and governance (CLARK 2001). In the process, accountability, quality assurance and performance monitoring have become more important, and management innovation has become a permanent quest.

In Nigeria, capacities for managing the university system and individual institutions have struggled to keep pace with the increasingly large and complex federal university system. Professional management techniques and training generally have not been applied. Management information systems vary widely in their use and their development is limited. Strategic planning is in its infancy. Institutional communications with internal and external audiences are weakly developed. Moreover, management innovation does not seem to be a conscious pursuit.

Recognizing these shortcomings, the National Universities Commission took steps in 2001 to promote more professional institutional management by encouraging institutional strategic planning; organizing annual two-week management training workshops for senior administrators; and

establishing a uniform accounting code for the university system.¹⁷ As yet, more efficient and responsive management has been slow to materialize.

A possible explanation for this lack of progress is suggested by Burton Clark (2001:10). He argues that an institution's incapacity to respond is the outcome of limits on government funding capability combined with rigid internal organizational structures. These conditions seem to prevail in Nigeria. Funding dependence has been demonstrated above, and organizational and procedural rigidities are also apparent.

The system's principal oversight body, the National Universities Commission, currently constitutes a barrier to the autonomy-induced responsiveness that government policy seeks to foster. The NUC is staffed almost entirely by longtime public servants. Most of its 600 staff have received no professional training in the management of higher education or in technical aspects associated with the NUC's mandates, such as quality assurance, policy analysis, or expenditure effectiveness. In fact, many staff appear to operate in relative isolation from international higher education and consequently possess a rather limited understanding of how a modern university system should function. Moreover, the NUC remains the only government parastatal body without a governing board to set policy and direction, and to hold its staff accountable for their performance. Unsurprisingly, it seems strongly disposed to maintain the status quo of its mechanistic and labor intensive monitoring of federal university statistics and expenditures for compliance with its longstanding guidelines. One result is that little attention is given to institutional operations in terms of graduate and research output. For example, annual budget reviews are detached from university management performance, from the quality of academic outputs and research contributions, and from the government's own budget review of the overall education sector. In its current form, the NUC seems unlikely to provide national leadership in developing a vision for the future of the system, or to play a useful role in anticipating and analyzing important issues of higher education policy.

However, management rigidities are also found at the institutional level. University management is based in large part on the highly participatory system of senate and academic committees that characterized British universities at the time of Nigerian independence. Very little movement can be

¹⁷ These efforts have been reinforced by similar strategic management initiatives at individual institutions, some of which have attracted grant assistance from the MacArthur Foundation and the Carnegie Corporation.

observed from this time-honored practice towards the leaner, more nimble and more corporate management model that has now become the norm in the United Kingdom and elsewhere.

It is worth noting that similar institutional rigidities can also be found within the various staff and student organizations. Their agendas and practices are increasingly old-fashioned. ASUU, in particular, would benefit from a strategic reorientation in response to changing national circumstances. Militant uncompromising opposition has only a limited place in a democracy. The confrontational tactics that brought ASUU success during the military era have become largely unnecessary, and could usefully give way to a more service oriented role in support of union members. This lack of adaptability in the light of changing circumstances may eventually lead to a loss of ASUU's hard-won credibility with the general public, and further retard the actions, already overdue, that are required to begin forging a national innovation system and to enhance Nigeria's productivity in an increasingly competitive global economy.

It must also be recognized that efforts to improve university system management and governance have been confounded by a pervasive culture of corruption within Nigeria society. A long tradition of weak governance oversight and limited management accountability under a succession of military governments seems to have made corruption endemic to Nigeria at the end of the 20th century. This led the global corruption watchdog organization, *Transparency International*, to rank Nigeria as the world's most corrupt nation in 2000 (TRANSPARENCY INTERNATIONAL 2000). Not surprisingly, this social malignancy has also extended to the federal universities. Reports of resumé falsification, plagiarism, cheating, examination malfeasance, sexual harassment, contract kickbacks, and the obligatory purchase by students of professorial lecture notes have regularly appeared in Nigerian newspapers in recent years. Prior to becoming the head of the National Universities Commission in 2001, Prof. Peter Okebukola denounced the "growing menace of student gangsterism, cult practices, examination malpractice, and other forms of violence and disruptive behaviors" within the university system (OKEBUKOLA 1998:310). Clearly, progress towards more responsive university governance and more innovative university management will be difficult until the political will can be found to tackle such deep-seated social disfunction.

Summary assessment

Important new higher education policies have recently been initiated in Nigeria. They respond to long-festered problems of access, quality, financing, governance and management within the nation's

federal university system, and seek to bring this system more in line with global good practices. The need for these changes is generally not appreciated among system stakeholders. They have been relatively cut off from the worldwide higher education transformations that took place in the 1990s as the result of international sanctions and cancellation of international cooperation programs imposed in response to human rights abuses within the country during the middle of the past decade. As a result, the success of these reforms is likely to depend upon the extent to which rigidities of the present system (i.e., within the National Universities Commission, the various university staff unions, and within the universities themselves) can be replaced by more flexible and responsive practices.

At this point, the principal task is not to accelerate the pace of change but to institutionalize the current reforms and operationalize them effectively. In order for this to occur, greater flexibility and responsiveness are needed, particularly in the following four areas, in order to create an enabling environment for the emergence of progressive self-steering, self-regulating, and self-reliant universities in Nigeria.

Access. Appropriate steps are being taken to increase access to higher education through the development of a private university sector and establishment of nationwide tertiary distance education programs. As continued enrollment growth generates a more diverse student population with different capabilities and different needs, the system will have to become more flexible and responsive if these students are to attain academic success. Continuing education options for working professionals, quality assurance programs, student support services, and mechanisms that enable students to transfer among institutions are among the changes likely to be required.

Teaching/learning. Much of university teaching in Nigeria is based on traditional pedagogy and conventional curricula, and does not even meet the government's own standards in these areas. In today's world, the content and method of Nigerian university teaching is often outdated, not responsive to employers' requirements, and disconnected from the labor market. Likewise, its research output is extremely low and unable to prompt innovation-based productivity gains. To increase the relevance and effectiveness of teaching and research, classroom dynamics may need to focus more on student learning performance, academic programs could seek stronger linkages with employers, and universities might pursue knowledge coalitions with other institutions that possess a comparative advantage in aspects of teaching and research.

Financing. Continued expansion of the higher education system has now exceeded government's capacity to serve as the principal financier of this growth. Under these conditions, local income generation takes on added importance, and also serves to reinforce policies promoting decentralization and institutional autonomy. Locally generated revenues have grown steadily in recent years, but may be approaching the limits of what is possible under existing circumstances. The only significant financing reform yet outstanding concerns student cost-sharing. In practice, however, announced policy changes in the financial, governance and administrative autonomy of institutions will ideally create the opportunity for cost-sharing to evolve locally through a series of individual institutional decisions rather than to be introduced abruptly by national policy edict. This process is well underway in several African countries (JOHNSTON 2002), and increasingly accepted in others (AMONOO-NEIZER 1998:306; BANYA & ELU 2001:30). Even in Nigeria, the topic is not lacking proponents (BABALOLA 1998:65; BASHIR 2002:7; OKEBUKOLA 1998:317). Whether or not government decides to permit the evolution of these trends in Nigeria will determine how bright or dim the future of higher education is likely to be.

Governance/management. Increasingly large and complex institutions of higher learning demand the application of professional management techniques, strategic vision, more proactive corporate management styles that address problems through innovation, and governance structures that facilitate institutional responsiveness to the wide range of university stakeholders. These shifts have been slow to materialize within Nigerian universities. The transition towards more flexible management and governance would be assisted by a national training capacity in university management, a budget allocation process that recognizes institutional performance, and financial management that empowers strategic planning and decentralized governance.

At this point, the government's policy reform package has been adequately designed but possibly not well explained to higher education stakeholders. University officers and governing councils have been largely passive observers of the announced reforms instead of taking on the role of change agents. Vocal opposition has come from the Academic Staff Union of Universities (ASUU), and to a lesser extent, from the National Association of Nigerian Students. Statements from these groups suggest that their resistance is based less on the substance of the autonomy legislation, and more on fears of a government hidden agenda to commercialize and privatize higher education.

In sum, the policy reforms outlined in this paper constitute a long overdue movement to bring Nigerian higher education into concert with current higher education practice around the world, but

they are neither well understood nor appreciated by major stakeholder groups. A substantial dose of political will and broad-based leadership from both NUC and Federal Ministry of Education officials, as well as senior university officers, will be needed if the reform package is to achieve its intended results. Unfortunately, the window of opportunity for these reforms may be passing. The approaching electoral season and 2003 presidential campaign may overshadow this well-founded reform effort, leaving the government's proposed autonomy legislation to languish in the National Assembly and allowing institutional rigidities to preserve the status quo.

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BIBLIOGRAPHY

- Adeyemi, Kola. (2001). Equality of access and catchment area factor in university admissions in Nigeria. *Higher Education*, 42, 307-332.
- Amonoo-Neizer, Eugene H. (1998). Universities in Africa: the need for adaptation, transformation, reformation and revitalization. *Higher Education Policy*, 11, 301-309.
- Babalola, Joel B. (1998). Cost and financing of university education in Nigeria. *Higher Education*, 36, 43-66.
- Bangura, Y. (1994). Intellectuals, economic reform and social change: constraints and opportunities in the formation of a Nigerian technocracy. *Development and Change*, 25:2, 261-305.
- Banya, Kingsley and Elu, Juliet. (2001). The World Bank and financing higher education in Sub-Saharan Africa. *Higher Education*, 42, 1-34.
- Bashir, Abbas. (2002). Funding of Nigerian universities: which way forward? Paper presented at the Academic Staff Union of Universities (ASUU) Seminar "The Plight of the University System in Nigeria: Any Way Out?". January 16, 2002. Yola: Federal University of Technology.
- Boateng, Kwabia. (2002). Higher education and the labour market: a logical framework for policymakers in Africa's education sector. Draft. Addis Ababa: Economic Commission for Africa. 18 pages.
- Butcher, Neil and Hafiz Wali. (2001). *Building Capacity to Deliver Distance Education in Nigeria's Federal University System*. Vancouver, Canada: Commonwealth of Learning. 121 pages.
- Callaway, A. and Musone A. (1965). Financing of education in Nigeria. IIEP Africa Research Monograph 15. Paris: UNESCO.
- Center for International Development and World Economic Forum. (2000). *The Africa Competitiveness Report, 2000/2001*. New York: Oxford University Press.
- Clark, Burton. (2001). The entrepreneurial university: new foundations for collegiality, autonomy and achievement. *Higher Education Management*, 13:2, 9-24.
- Coleman, James S. with David Court. (1993). *University development in the third world: the Rockefeller Foundation experience*. New York: Pergamon Press. 417 pages.
- Dabalén, Andrew, Bankole Oni and Olatunde Adekola. (2001). Labor market prospects for university graduates in Nigeria, *Higher Education Policy* 14, 141-159.
- Daily Trust*. (2002). Government to spend N 30.6 billion on universities. July 9, 2002.
- El-Khawas, Elaine. (2001). Today's universities: responsive, resilient, or rigid? *Higher Education Policy*, 14, 241-248.

- Federal Ministry of Education. (2000). Government policy on autonomy for universities. Abuja: Office of the Honourable Minister, Federal Ministry of Education. 6 pages.
- Federal Republic of Nigeria. (1991). *Higher education in the nineties and beyond*. Report of the Commission on the Review of Higher Education in Nigeria ('the Gray Longe Commission'). Lagos: Government Printing Office. 193 pages.
- Federal Republic of Nigeria. (2001). *Report of the committee on university autonomy and other related matters*. (the 'Ijalaye Committee') June. Abuja, Nigeria: National Universities Commission. 59 pages.
- Federal Ministry of Education. (2002). *Communiqué: national summit on higher education*. March 11-16. Abuja, Nigeria: Federal Ministry of Education. 9 pages.
- Gibbons, Michael. (1998). *Higher education relevance in the 21st century*. Education monograph. Human Development Network. Washington, D.C.: The World Bank. 64 pages.
- Guardian Newspaper. (2002a). Government ready with varsity autonomy bill, *The Guardian*, Thursday, March 28, 2002.
- Guardian Newspaper. (2002b). N. 7.2 billion lifeline coming for federal universities, *The Guardian*, Tuesday, August 6, 2002.
- Hartnett, Teresa. (2000). *Financing trends and expenditure patterns in Nigerian federal universities: an update*. Unpublished report. Washington, D.C.: The World Bank. 85 pages.
- Hinchliffe, Keith. (2002). *Public expenditures on education: issues, estimates and some implications*. Washington, D.C.: The World Bank. 45 pages.
- Johnston, Bruce. (2002). Financing higher education in Eastern and Southern Africa: diversifying revenue and expanding accessibility. Conference report of March 24-28, 2002. Buffalo, NY: Center for Comparative and Global Studies in Education, State University of New York at Buffalo. 12 pages.
- Kerr, Clark. (1993). Universal issues in the development of higher education. In: J.B. Balderston and F.E. Balderston (eds.), *Higher education in Indonesia: evolution and reform* (pp. 19-35). Berkeley: Center for Studies in Higher Education, University of California.
- National Universities Commission. (1992). Preliminary Report of the National Accreditation Exercise of 1990/1991. Unpublished. Abuja, Nigeria: Department of Academic Planning, National Universities Commission.
- National Universities Commission. (2002a). *Ranking of Nigerian universities according to performance of their academic programmes in 1999 and 2000*. February. Abuja, Nigeria: National Universities Commission. 91 pages.
- National Universities Commission. (2002b). Academic staffing profiles, student enrollment, dropout and graduation rates at Nigerian universities during 1995/96 to 1999/2000 academic years. Unpublished. Abuja, Nigeria: Department of Academic Planning, National Universities Commission.
- National Universities Commission. (1997). *Statistical information on Nigerian universities*. Abuja, Nigeria: National Universities Commission. 68 pages.

Nelson, R (ed.). (1993). *National innovation system: a comparative analysis*. New York: Oxford University Press.

Okebukola, Peter. (1998). Management of higher education with special reference to Nigeria. In: *Higher education in Africa: achievements, challenges and prospects* (pp. 297-321). Edited by the UNESCO Regional Office for Africa. Dakar, Senegal: BREDA.

Oni, Bankole. (2000a). *The demand for university graduates and employer's assessment of graduate skills in Nigeria*. Research report. Ibadan, Nigeria: Nigerian Institute of Social and Economic Research. 53 pages.

Oni, Bankole. (2000b). Capacity building efforts and brain drain in Nigerian universities. In: Sibry Tapsoba et al. (eds.), *Brain Drain and Capacity Building in Africa* (pp. 208-227). Joint publication of the United Nations Economic Commission for Africa, the International Development Research Centre, and the International Organization for Migration. Addis Ababa, Ethiopia: UNECA.

Onweh, V.E. (1997). Science and technology education in the past decade in Nigeria: policy, practice and prospects." In: K. A. Salami et al. (eds.), *Technology Education in Nigeria*. Lagos: Nigerian Association of Teachers of Technology.

Organization for Economic Cooperation and Development. (2001). *Education policy analysis: education and skills*. Paris: OECD.

Porter, Michael E. (1990). *The comparative advantage of nations*. New York: The Free Press. 683 pages.

Romer, Paul. (1990). Endogenous technological change. *Journal of Political Economy*, 98, 71-102.

Salmi, Jamil. (2001). Tertiary education in the 21st century: challenges and opportunities. *Higher Education Management* 13:2, 105-129.

Stern, Scott, Michael E. Porter, and Jeffrey L. Furman. (2000). *The determinants of national innovative capacity*. Working Paper No. 7876. Cambridge, MA: National Bureau of Economic Research.

Task Force on Higher Education and Society. (2000). *Higher education in developing countries: peril and promise*. Washington, D.C.: The World Bank. 135 pages.

Transparency International. (2000). *2000 Corruption perceptions index*. Berlin: Transparency International.

UNESCO. (2000). *World Education Report 2000*. Paris: UNESCO. 178 pp.

World Bank. (1988). *Nigeria: Costs and Financing of Universities*. Report No. 6920-UNI. Washington, D.C.: The World Bank. 90 pages.

World Bank. (1996). *Nigeria: Poverty in the midst of plenty*. Washington, D.C. The World Bank.

World Bank. (1999). *World development report: knowledge for development*. Washington, D.C.: The World Bank. 251 pages.

World Bank. (2002a). *World development indicators*. Washington, D.C.: The World Bank. 212 pages.

World Bank. (2002b). *Constructing knowledge societies: new challenges for tertiary education*. Washington, D.C.: The World Bank. 164 pages.

Higher Education in Nigeria: A Status Report

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Table 1. Enrollment Growth: Policy Norms and Rates of Increase between 1989/90 and 1998/99.

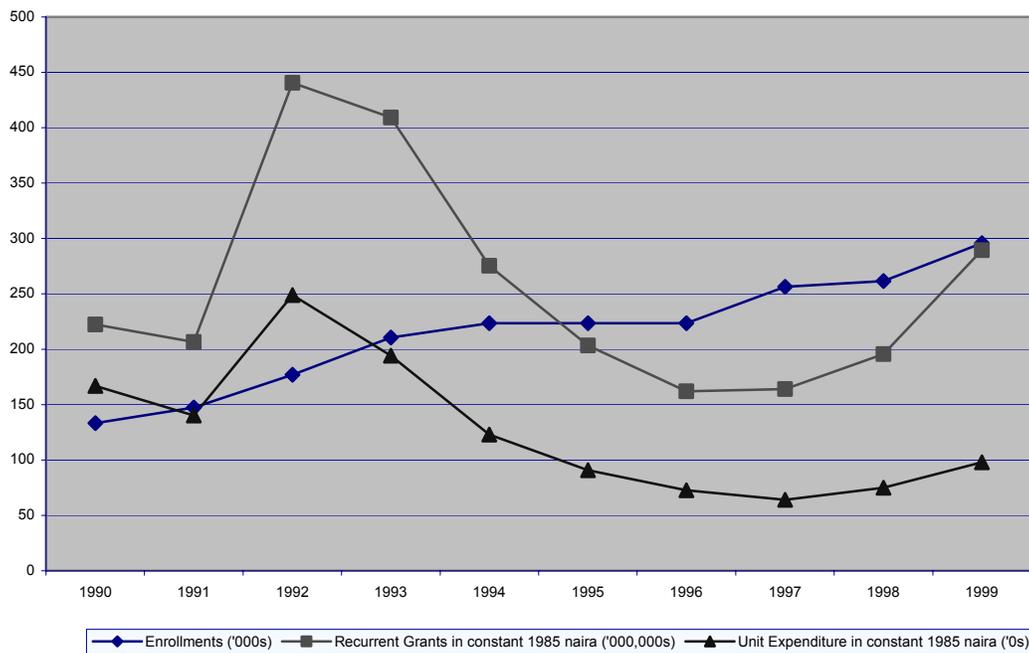
Category	NUC Policy Norms	Actual Growth Rates
1 st generation universities	3 %	9%
2 nd generation universities	10%	13%
3 rd generation universities	15%	21%

Source: HARTNETT 2000.

Higher Education in Nigeria: A Status Report

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Chart 1. Trends in Federal University Enrollments, System Funding, and Recurrent Expenditure per Student, 1990-1999



Source: HARTNETT 2000, Table 5