

# Towards Competitiveness

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# Higher Education Competitiveness: Achieving Better Quality and Better Equity<sup>1</sup>

## Abstract

*Across countries at all stages of development, -- economists, business leaders, educators and government policymakers recognize the central role in economic and social development played by higher education. The quality of higher education is one of the fundamental variables of a nation's economic competitiveness. Over the past 20 years, Egypt has made dramatic improvements in the percentage of its young people who attend higher education institutions, but improvements in the quality and equity of postsecondary education have not kept pace with this change. The increases in government funding to higher education in recent years remain far short of what is needed. Even with significantly higher government spending, public sector sources alone will not be sufficient to support the level of quality in higher education that is required of a competitive economy.*

No country has expanded access and improved quality and equity on the scale required by Egypt without diversifying the types of institutions (public and private research universities, teaching colleges, two year vocational and community colleges etc.) in the system and the sources of revenue generated to fund them. High quality, diverse higher education systems are characterized by a high degree of autonomy at the institutional level and by tuition fee systems that include means-

tested student loans to fund some share of the costs. While the government's role remains critically important to ensure fairness and quality in the system, new research shows that greater diversification in higher education produces more revenue, better quality and improved equity, i.e. better opportunity for the poor.

This paper argues for reform of governance and financing to ensure better equity for the disadvantaged and better quality

<sup>1</sup> This paper was written by Mr. Andrew Lewis for the ENCC under funding from the US Agency for International Development. It is based on material presented by Dr. Steven Heyneman of Vanderbilt University and Dr. Bruce Johnstone of the State University of New York/Buffalo at the ENCC Roundtable on "Higher Education Finance and Competitiveness", November, 2008.

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for all. It then suggests four tangible, near term steps the Government of Egypt (GOE) can take to prepare for a future in which students, parents and the private sector will be asked to share the burden of financing higher education: 1) diversify sources of finance including expanding the number of private non-profit institutions; 2) target public scholarships to students; 3) introduce tuition in national universities along with means-tested student loans; and 4) increase university autonomy.

### **Skills, Economic Growth and Competitiveness**

Adapting new technology and new business models is vital to growth in emerging market countries. Since the early 1990s, the “New Growth Theory” (associated notably with the contributions of Paul Romer) and strategic studies by the World Bank (for example, *Constructing Knowledge Societies: New Challenges for Tertiary Education*, 2002) have demonstrated how important higher education is to an economy’s ability to adapt and modernize. New research shows just how strongly education quality, as measured by the level of higher order thinking skills of the workforce, is tied to economic growth -- quality accounts for 75% of the differences in economic growth explained through education while just 25% is attributed to enrollment rates or years of schooling (Hanushek, Wobmann, 2007).

According to the World Economic Forum’s Global Competitiveness Report (GCR), 2008, the quality of Egypt’s education dropped from 69<sup>th</sup> to 80<sup>th</sup>

place between 2007 and 2008. But in higher education the results were still worse: Egypt’s ranking tumbled by 22 places, from 80<sup>th</sup> to 102<sup>nd</sup> place. An “inadequately educated workforce” was cited in the GCR among the most problematic factors to doing business.

According to a 2007 Business Barometer report by the Egyptian Center for Economic Studies, 73% of businesses cite insufficient numbers of skilled workers as a “major factor” affecting performance. In the words of one entrepreneur, “It’s not that we have an unemployment problem in Egypt, it’s that the graduates are unemployable.”

Universities, however, do much more than simply provide skills needed in the labor market. One recent international estimate suggests that 30% of today’s cadre of 1st-year university students will take jobs that do not exist today. Universities also prepare students to become good citizens and responsible leaders, provide a venue for the exchange and debate of ideas, serve as a center for cultural vibrancy, a locus of innovation and knowledge creation and a gateway to a better life.

Egypt is certainly not alone in dealing with the challenges of access, equity and quality. Higher education systems the world over are in the midst of far-reaching changes. University education is no longer reserved for the elite. Between 1991 and 2004 university enrollment worldwide increased from 68 million to 132 million. This growth is the result of improvements in access to primary and secondary schooling over the past 30 years and increased demand for advanced skills

and technology in a global economy. As demand for higher education has increased, so too have its costs. Higher education institutions, unlike profit-making enterprises, do not achieve economies of scale and lower per unit costs when demand increases. In fact, costs rise faster than the enrollment rate.

What are nations doing to cope with such expansion without sacrificing quality? What are the policy options available to Egypt to increase available funding while maintaining and even improving access and equity for the disadvantaged?

### **University Autonomy and the Changing Role of the State**

To cope with the rise in demand and cost, in both industrialized economies and developing countries, governments have pursued policies which allow greater diversity in higher education systems. By necessity as much as by design, countries have granted more autonomy to universities and have forced institutions to operate in a more competitive environment.

With these changes, the state’s role in higher education has evolved from one of control and provider of education to regulator of an environment that encourages innovation, entrepreneurship and closer relationships with students, employers and the community – essential ingredients in educational institutions that are able to adapt and create knowledge and skills in tune with the needs of the marketplace.

It has become axiomatic that institutional autonomy is essential for higher education to flourish. Autonomous universities have independent boards of trustees that set the institutional mission and strategy and appoint and hold accountable university leadership. Authority over curriculum, admissions, budgets and staffing, including pay scales and performance incentives improves the ability of the institution to adapt to changing conditions and to meet the diverse needs of the communities in which they operate. Autonomy also allows the higher education system to support the variety of types of institutions with some focusing on research and others on teaching or professional/technical programs. Many countries have encouraged the growth of private institutions to absorb demand and promote diversity and specialization. With a net enrollment of 68%, Korea has vastly improved access to higher education by expanding the role of the private sector. Today, 78% of its post-secondary students attend private institutions that include everything from large, globally-recognized research universities to two-year vocational schools (Heyneman, 2008).

By contrast, only about 2% of Egypt's 2.5 million post-secondary students attend private institutions, and it takes years to gain approval to establish a new private university.

Diverse systems that both allow and also require universities to compete for resources, students and staff provide the greatest incentives for ongoing and continuous quality improvement. Diversification does not mean diplomas can be bought with PhDs for sale to the highest bidder. Even the most free-market oriented economist would agree that the state plays a critical regulatory role, and state funding for national universities is still required to ensure the most economically disadvantaged have access to higher education and to invest in academic areas where economic returns are indirect but which have important cultural and social returns.

To regulate an autonomous environment where decision-making is put in the hands of the universities, states establish quality assurance and accreditation systems. States relinquish some control but hold institutions accountable by setting standards, monitoring performance and meting

consequences to ensure compliance. Among countries in the MENA region in 1999, only Jordan had a quality assurance system for higher education. Today, 15 countries in the region, including Egypt, have begun to implement such systems.

### **Financing Trends: Tuitions and Student Loans**

Growing enrollments are also driving significant changes in how states pay for higher education. Although incentives for improving efficiency and lowering costs are important, cost-cutting only goes so far before having a negative impact on quality. For example, outsourcing non-academic services, reducing facilities costs through Public Private Partnerships and eliminating programs and jobs not in line with a university's academic mission can have significant impact on cost, but these measures alone do not provide the funds required to cope with rising per-student costs and growing enrollment rates.

As a result, governments must find ways to raise revenue to cover the increasing costs of an expanding cohort of students. Raising taxes is usually difficult and politically unpopular even in the most efficient states, and developing countries in particular face a host of other priorities competing for meager tax revenues like health care, basic education and infrastructure (Johnstone and Marcucci, 2007). To supplement state budgets, states are turning to non-tax sources of revenue. At the university level, these include income on intellectual property and patents, endowments, philanthropic

## **Diversified Revenue, Examples:**

**Korea 2007:**  
43% from non-state sources

**University of Santiago in Chile:**  
1960: 20% from non-state sources  
2008: 80% from other sources

(Source: Heyneman, 2008)

**Box 1**

fundraising, rent on property, consulting services and, most notably, fees and tuition. (See Box 1 for examples)

Due to the magnitude of funding required, states must inevitably shift some of the funding burden to the beneficiaries of higher education – parents and students. Though largely driven by austerity and the fact that state budgets cannot meet growing demand, tuitions are perceived as being fair to the average taxpayer when students of higher education, who can expect to enjoy greater prestige and income, are responsible for some of its costs. Tuitions are also found to promote better efficiency in the use of state budgets when some competition is allowed among universities. Students and parents become discerning consumers in search of the best value and are more apt to hold institutions accountable for a quality education when their own money is involved.

As tuition policies become more widespread, student loan schemes and means-tested grants and scholarships have been devised to ensure access to the most deserving and to charge fees based on the student's ability to pay. Loan schemes vary widely but contain a significant and coordinated role by the government to regulate or directly administer such elements as guarantees, rates and terms, repayment methods and enforcement and means testing. Having said that, the proportion of overall instructional costs funded through tuitions varies widely and in almost no countries does it exceed 40% (Johnstone, 2008).

## Egypt: "Free" is Not Free

**Egyptians demonstrate a strong willingness to pay for education. According to the World Bank:**

- Education accounts for 9.4% of household income, &
- 14 billion LE is spent annually on private tutoring

**Students in "free" Arabic sections at universities spend about 2,000 LE per year on tutoring, books, fees, class notes, etc.**

**The current higher education system magnifies inequality and marginalizes the economically disadvantaged – precisely the group that "free" education is supposed to help.**

### Box 2

Experience from other countries sheds light on the political and technical complexity of a student loan program, but several key success factors from experience around the world emerge from this political and technical complexity.<sup>2</sup> Student loans should be: generally available to qualified students; sufficient to cover the student's costs without undue hardship; need-based for those who otherwise cannot afford tuition; minimally subsidized so as not to over burden the government budget that the loan program was supposed to relieve in the first place; collectible through "good lender" practices and a supportive legal framework to reduce default; and able to tap private capital markets so that the loans are treated as an asset and not a regular governmental expenditure whether administered by the government or through commercial banks (Johnstone and Marcucci, 2007).

### Tuition Systems Can Improve Equity and Access

Many countries, like Egypt, have constitutional or legislative provisions for "free" education. These provisions were largely motivated by a genuine desire to widen economic opportunities for the disadvantaged.

And yet counter to conventional wisdom, systems that are diversified and charge tuition fees, when coupled with means-tested student loans and scholarships, actually are found to have higher levels of both equity and access. These systems also have a higher proportion of students from low income backgrounds attending the elite universities. (Shavit, Arun and Gamoran, 2008). Egypt represents the opposite case – only 9% of students from the poorest income quintile attend post-secondary education (World Bank, 2007) while gross enrollment is nearly 30%. As shown in Box (2), the current system increases inequality.

<sup>2</sup> The International Comparative Higher Education Finance and Accessibility Project at the State University of New York, Buffalo has built a clearinghouse of research and case studies

While guaranteed to generate significant political resistance, almost all countries, rich and poor alike, face very little alternative to introducing some form of tuition fee systems in order to finance expansion without sacrificing quality and equity.

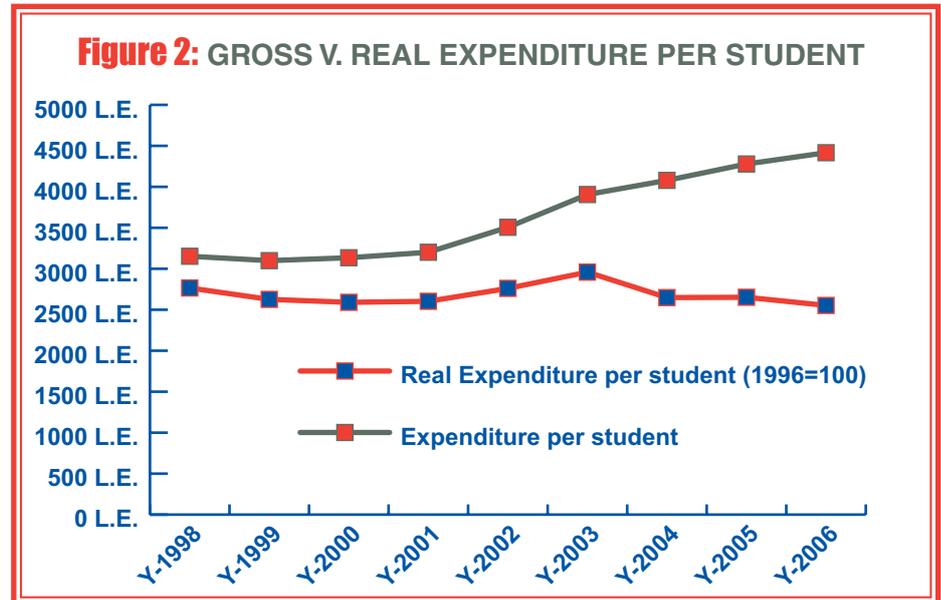
### Facing the Facts

In recommending policy options for Egypt to cope with expanding enrollments and chronic underfunding, let us examine data that illustrates where the country stands in relation to its aspirations.

Between 1998 and 2006, the gross budget for higher education in Egypt increased by 89% in nominal terms. The rate of budget increase outpaced the rate of change in enrollment, and gross spending per student appeared to improve by 40% over this same period as depicted in Figure 1.

for inflation) expenditure per student fell almost 8%.

more urgent. Figure 3 shows how far behind Egypt has become relative to



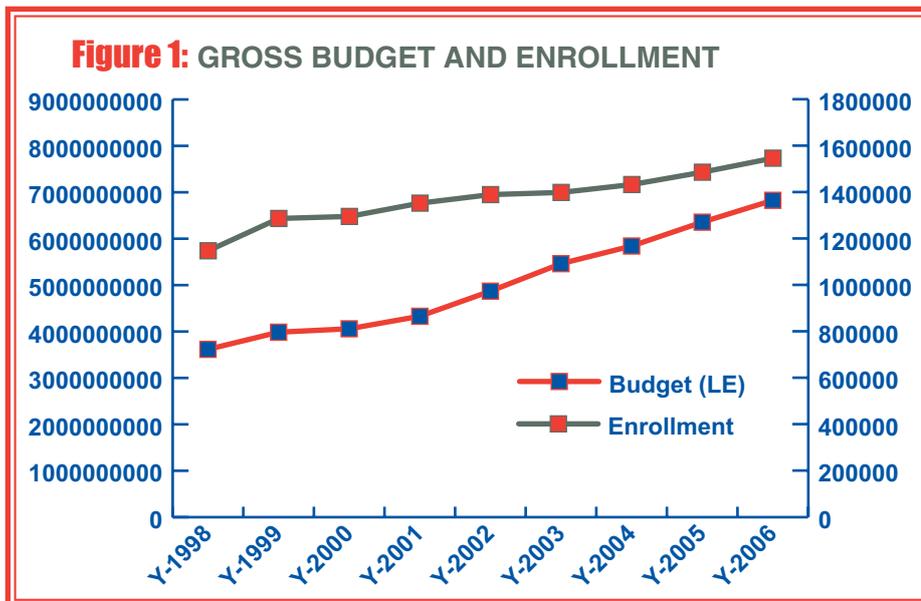
(Source: MOHE, A.R.E.)

These trends represent a compelling case for action by themselves. Egypt is falling behind even as it devotes more state funds to higher education. When compared to the performance

other countries in per student expenditure – a widely used proxy indicator of quality in higher education. With an inflation-adjusted allocation of just \$413 per student, it is hard to imagine the current system being able to support the kind of sustained, broad-based economic growth that Egypt hopes to achieve.

Further exacerbating these trends is that a significant share of the government’s budget to universities is devoted to hospitals. For example, 47% of the 2008/2009 Cairo University budget of 1.6 billion LE is reportedly devoted to university hospitals.

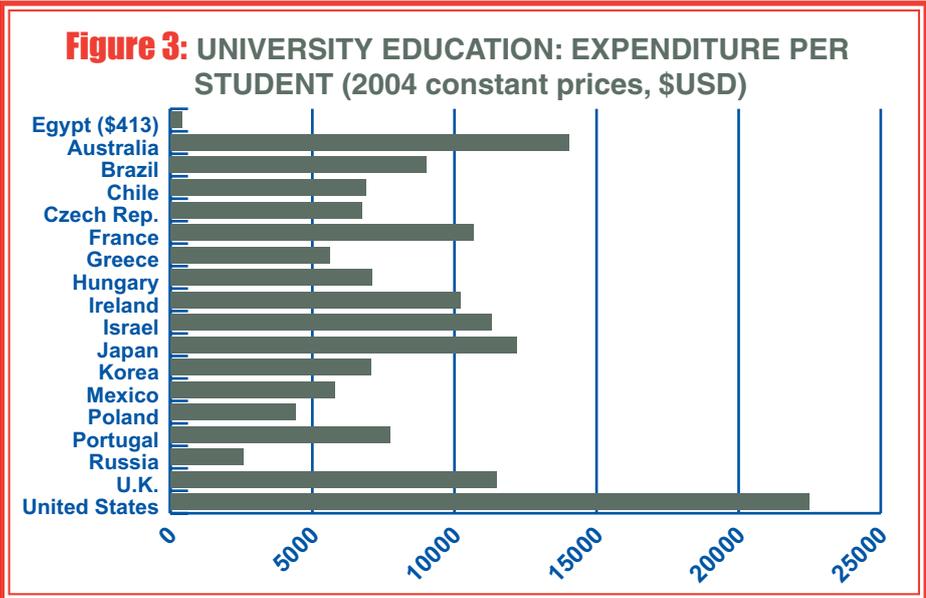
Despite the argument that “free” higher education ensures opportunities for disadvantaged students as noted earlier, only 9 percent of the poorest quintile attends university while nearly half of students in the richest quintile are enrolled (Figure 4). Egypt’s performance is consistent with findings



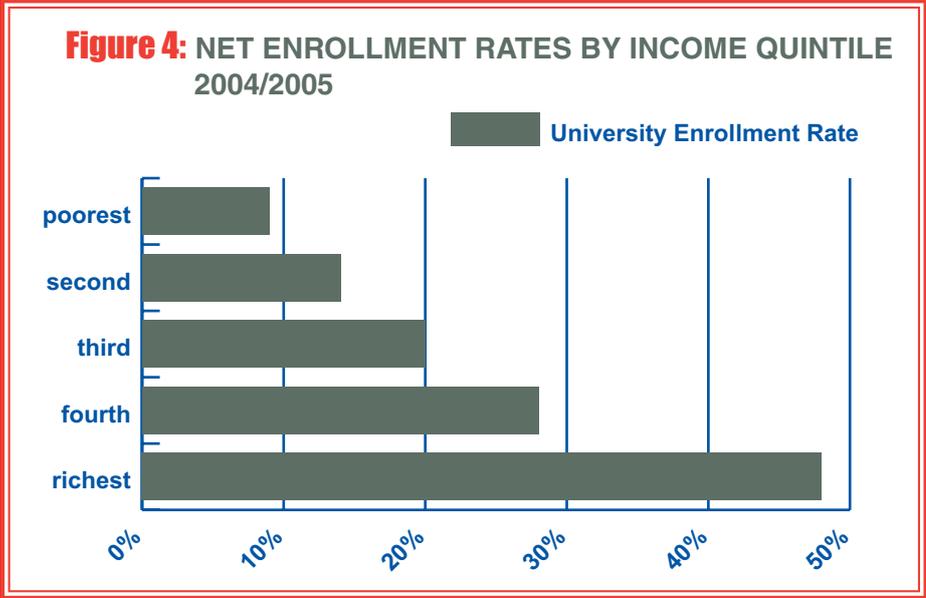
(Source: Ministry of Higher Education ( MOHE) and Consumer Price Index (CPI) data)

Adjusted for inflation, however, the budget increased just 24% and, as Figure 2 demonstrates, real (adjusted

of other countries, particularly those struggling with the same challenges faced in Egypt, the story becomes



(Source: Organization for Economic Cooperation and Development (OECD) & Central Agency for Public Mobilization And Statistics (CAPMAS) & MOHE)



(Source: World Bank, 2007)

in many other countries that have yet to significantly diversify sources of finance and / or allow expansion of private education to supplement state budgets and national universities.

**Reforming Finance: Key Questions for Egypt**

The facts demonstrate that the system will continue to fall behind without a new set of policies to allow universities to charge tuition. Any tuition fee

system must also include a means-tested student loan program to ensure equal opportunity for the poor. Such reforms can and in fact must be introduced in parallel.

Any major reform of higher education finance will take a long time to bear fruit. In addition to complicated political considerations to sort out and the need to substantially improve public awareness and understanding of the

issues, there are serious technical questions that must be addressed. These include the extent to which private education should be expanded; what costs a loan scheme would cover – e.g. food and facilities, teaching, etc.; what system of means testing is most suitable to encourage participation of worthy poor students; whether or not parents would be expected to pay an up-front fee or whether the cost would be born by students in the form of deferred fees or loans; the extent to which the government is involved in assuming risk and enforcing repayment; and the share of total costs to be covered by tuition fees. (Johnstone, 2008). These issues are complex and very difficult to get right, but are fundamental to any effective system of higher education finance.

**Conclusion**

Egypt must do better at nurturing a human capital base that can survive in a world economy that rewards competition, knowledge creation, innovation, and adaptability. Its higher education system is central to the challenge of improving the nation's competitiveness.

Egypt cannot provide quality higher education to its citizens without substantial changes in how universities are regulated and funded. Despite gains in the percentage of secondary school graduates who attend higher education, quality has suffered dramatically. Further, the current system does not provide equal opportunity for low income students. Public sector revenue sources alone are not sufficient to fund the quality needed

to produce graduates with the skills demanded in a competitive economy.

To produce incentives to improve quality, the government should shift its role from control toward regulation, and enable an environment in which universities are responsible for resource allocation and curriculum and are required to compete for the best staff, students and research funds. Greater autonomy and putting the money in the students' hands through means tested loans and grants to fund some share of the cost of higher education will provide incentives to education institutions to innovate and improve quality.

However the constitutional and legislative barriers to diversifying governance and finance are overcome, Egypt must eventually follow the path, adjusted to its own culture and political economy, of much of the rest of

the world in granting more autonomy to universities and expanding non-tax sources of revenue to fund higher education.

### Recommendations

The author proposes an inter-ministerial, high-level working group including the Ministry of Higher Education, the private sector, universities, Ministry of Finance, Ministry of Trade and Industry, other ministries and parliamentarians to broaden the national discussion about higher education reform. This working group will begin laying the foundation for a system in which beneficiaries of higher education contribute to its cost.

Specific reforms for advocacy within the GOE and with the public include:

- Diversifying the sources of higher education finance beyond the government – including expanding the

number of private non-profit institutions

- Targeting public scholarships to students
- Introducing a tuition fee program and a means-tested student loan scheme and allowing students to choose the best institution for their needs
- Increasing the autonomy of university management

The work group could also sponsor a broad public awareness campaign to inform future decisions about higher education reform and commission a detailed feasibility plan to outline a tuition fee system that promotes equity through loans and scholarships.

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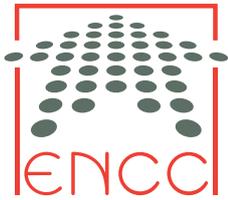
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