based courses—both for its intrinsic value and to force students to use computers every day.

The classroom design borrows from Phoenix, but had to be adapted to Brazilian legislation, which requires 20 hours a week of contact with teachers. Four courses are taken simultaneously. During the week there is a single lecture per course, offered in classes with 100 students. This is followed by discussion sessions with 25 students. The class is then broken down into groups of five, which receive practical tasks and projects to work on. Evening students use class time to read the materials, since many do not have additional free time. Fridays are spent on evaluation and assessment of the week's work.

Teachers are selected for their willingness to accept the new model and receive two weeks of training in content and methods. Although the centrally planned syllabus and detailed delivery strategies might have scared teachers away, this has not happened. They like not having to spend time planning classes and delivering the same lecture over and over. Instead, they spend ample time in discussions with students and then develop—based on suggestions and guidelines—interesting applications, examples, and projects for the groups to work on (the best ideas are beginning to be collected and put on the teachers' homepage).

The first crop of students is in. Their reactions to the innovative classroom have been very positive. As a new institution, the image of Pitagoras has served as the single most important factor in attracting good students in Belo Horizonte.

There are challenges ahead. Will good students enroll in localities where Pitagoras is not known? How will Pitagoras fare in such a competitive market (40 percent of applications to new higher education programs are in business administration—indicative of the popularity of that field). Will students accept having to read the "great books" and take courses on physics in their first two years, while students at other schools are struggling with cash flows and breakeven points? So far, students understand the rationale for general education, but if the academic level of the clientele falls, this may not be the case. The delivery methods are designed to compensate for teachers who are less than ideal. But the acid test has not been passed, given the high quality of present teachers.

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Faculdades Pitagoras chose a model that requires very heavy upfront investments in courseware. To break even, it needs to go to scale, replicating several times the relatively small individual campuses. Only time will tell whether the model can withstand replication in environments that are very different from Belo Horizonte.

Argentine Higher Education in Transition

Marcela Mollis

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A transition is now taking place within higher education in Argentina. As part of that process, the National Commission for the Improvement of Higher Education has been given the task of diagnosing the condition of the system and proposing reforms. The final report will be submitted to the Senate to assist it in the potential revisions of the 1995 higher education law. From my point of view as a commission member, the present debate over higher education and its reform seems marked by a very shortsighted perspective and driven by an overwhelming notion of "financial and economic crisis." When the commission's work is concluded, Argentina's historical tradition of public higher education is expected to undergo significant changes.

Higher education in Argentina is moving away from the idea of the university as a social institution toward the idea of higher education as an "industry."

Social Institution or Industry?

Higher education in Argentina is moving away from the idea of the university as a social institution toward the idea of higher education as an "industry." Those who support the idea of higher education as a social institution believe that public universities must preserve a broader range of social functions—among them, the cultivation of citizenship, the preservation of the country's cultural heritage(s), and the formation of individual character and critical habits of mind. This perspective seems to have been inspired by the modernizing and democratic thinking of the leaders of Argentine public universities at the beginning of the 20th century. In 1916, one of the most influential rectors of the University of Buenos Aires, Eufemio Uballes, made a declaration in favor of state funding of the university while protecting the civil rights of poor Argentine citizens with respect to mandatory free public schooling. He proclaimed the need for state financial investment at the top of the system as much as at the bottom. Uballes considered that reading and writing were basic skills useful for the working class. However, he believed that the development of a national culture required a large group of citizens dedicated to the arts, science, and poetry.

The defenders of the idea of public universities as social institutions are now debating the defenders of the idea of universities as an industry, dedicated to efficiency over the democratic principles that guided the public policy of free tuition at all public universities. In their recent article in this newsletter, Martin González Rozada and Alicia Menéndez argue that the equity and efficiency of the system can be improved by charging tuition fees. To complement this policy, selective scholarships and student loans should be made more widely available to attract the most talented students from poor families. This diagnosis is probably right, although the argument does not take into account the social realities behind the socioeconomic profile of beneficiaries of the university system.

Children from poor families tend to drop out of school before completing their mandatory basic education. In 1998, only 2 out of every 10 students completed the secondary level of education, and 64 percent of the Argentine population between 25 and 34 had not completed the secondary level. At the top of the educational pyramid, 31.5 percent of the 18-to-24 year-old age cohort was enrolled in higher education institutions, with a 15 percent completion rate. While the poorer classes drop out at the earliest stages of the education system, the middle classes (with a professional background) have a 60 percent likelihood of completing a university education, according to a recent study by Susana Torrado. However, research has also shown that the economic recession is having a negative effect on the future expectations of the professional middle class with regard to university diplomas.

The transition taking place within higher education in Argentina is economically driven not only by the global dominance of the market but also in response to the "third sector of the economy"—the service sector.

University for the Service Sector

In accordance with demands of the International Monetary Fund, the Argentine Parliament recently passed a law called *Cero Public Deficit*, which imposed a 30 percent cut in national public expenditures applied mainly to education, health, and social welfare sectors.

How is it possible for an undeveloped country, economically and politically dependent on international credit agencies and culturally devastated by the policies of struc-

tural adjustment, to implement the model of higher education as an industry? What kind of industry embodies the particular nature of the Argentine economy, and therefore, what kind of higher education would be appropriate? In the capitalism of the South, the idea of the university as an industry translates into the "university for the service sector." The transition taking place within higher education in Argentina is economically driven not only by the global dominance of the market but also in response to the "third sector of the economy"—the service sector—which is the sole dynamic sector in a recessive labor market in an unindustrialized capitalist economy.

In the last 10 years Argentina become the country with the lowest investment in higher education.

One indication of the connection between changes in higher education and the service sector of the economy is the fact that in the last 10 years Argentina become the country with the lowest investment in higher education (0.95 percent of DGP), according to a survey of Western OEDC countries. Another indication is the rising university enrollments in fields such as administration and business management, social communications (mass media–oriented), economics, computer sciences, and so on.

The largest portion of university students (85 percent) still chooses to attend pubic universities, which continue to confer a level of prestige that employers still take into account and that influences parental decision and student choice. Between 1994 and 1999 most of the institutions that have absorbed the new enrollments have been the private tertiary institutions, which have proliferated at a rate of expansion far outstripping the development of the public university system. It is interesting to note that while the number of private institutions has increased 68 percent since 1994, private university enrollments have remained relatively stable. Under the guise of meeting local market needs, the expansion of the system through diversification is predominantly a process of privatization that consists of the setting up of the new colleges and vocational institutions by the private sector. These new private institutions at the (nonuniversity level) are made up of the increasing number of vocational institutes in such areas as hotel management, the culinary arts, tourist management, marketing, flight attendant training, and so on.

The "marketization" of Argentine higher education is reflected in the establishment of these new institutions. While this new type of institution is certainly having an impact on the system, the "market" in terms of student choice remains skewed toward the public universities.

Countries and Regions

Conclusion

The market-driven reform is based on the idea that the market will compensate for the withdrawal of public funds from the public education system. However, early results of these policies do not auger well for the institutional development of our universities. One of the most visible consequences of these market-driven policies is the proletarianization of researchers and faculty members as a result of periodic salary cuts and the universities' disin-

vestment in research programs. A related development is the fact that 60 percent of all university students are already employed (the majority with full-time jobs of 40 hours per week). This is evidence of a new type of middle-class student at the most advanced level of higher education.

The issues raised in this article are discussed more fully in the recent book by Marcela Mollis, *La Universidad Argentina en Tránsito* (2001).

Japan's "Top 30" Universities

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Private universities in Japan, already under considerable pressure in recent years because of the continuing economic slump and the rapid decline in the eighteen-year-old population, are now facing a new headache. The Ministry of Education, Culture, Sports, Science and Technology announced in June of this year that it is revising its method of allotting financial aid to private universities.

Up until now the criteria have been rather straightforward and objective. Private universities that maintained a good ratio of teachers to students, a proper proportion of library books and classroom space per student, and so on were given more generous assistance than institutions that admitted numbers of students beyond the quotas they could properly handle.

Now the ministry is saying that it wants to concentrate on raising the level of Japan's "Top 30" universities so that they can compete with the best universities around the world. These "Top 30" will include national universities (now financed mainly by the national government); public universities (financed mostly by the local governments that established them); and private universities, which are effectively self-supporting—financed mainly by student tuition fees and donations (which, incidentally, are far more limited than in the United States).

The ministry wants to raise the level of Japan's "Top 30" universities to compete with the best universities around the world.

Up until now, government subsidies to private universities have been granted for current expenses necessary for research, thus helping to keep student tuition fees from climbing too high. The national government also provides private institutions of higher education with grants for the purchase of educational and research equipment.

According to the new plan, the priorities will be shifted so that the assistance to private universities will be reduced by 10 percent across the board. From now on, private universities must compete with public and national universities to receive government aid for graduate programs worthy to be ranked in the "Top 30."

University presidents will be required to submit to the ministry proposals for financial assistance to particular graduate programs, and these will be evaluated by "third-party expert examiners" appointed by the ministry. This change in policy is understandably a cause for great concern among private university administrators. Up until now national and public universities have in general had much larger budgets at their disposal than private institutions and have built up distinguished faculties and excellent research facilities, particularly in science and engineering. Scientific research has flourished but often at the expense of undergraduate education.

Private university administrators are even more concerned when they consider the areas of study that the ministry is focusing on and the criteria for evaluating which universities belong in the "Top 30." At the top of the list of key areas published by the ministry in June are the life sciences, including bio-science, biology, medical engineering, agriculture, and pharmacy. Next comes medicine, which includes dentistry, nursing, and public health. Third on the list are mathematics and physics, followed by chemistry, and earth science. In fifth place we find communications and electrical engineering, followed by mechanical engineering, systems engineering, and metallurgy. Civil engineering and architecture come next. And then, finally, in the eighth slot we see the first reference to the humanities—with literature, history, philosophy, psychology, education, theater, linguistics, and the fine arts all lumped together in one category. In ninth place we find the social sciences: law, political science, economics, business, sociology, and public planning. The very last category is a mixture of disciplines: environmental studies, social welfare,