

generation. Likewise, of the generation that obtained its higher education during the Soviet period and then had to change professions or even take low-skilled jobs in post-Soviet Russia, a significant part thinks that higher education represents a chance to get an interesting and well-paying job. Maybe that explains why 1.23 million of the 1.3 million graduates of secondary school enrolled in higher education institutions last year. In a transitional society such as Russia higher education's strategic importance rises as people recognize the need to return to higher education for a "better" education, one that is more specialized and market oriented.

Equal opportunity with regard to education is an ideal a society should aspire to. However, we should distinguish between higher education in general and relevant higher education. Russian universities are quite differentiated, ranging from the elite to the low quality. Who will obtain an education oriented to the current context is an important question. Of course, what constitutes a relevant education is problematic in such an unstable society. As yet it has not been decided what kind of society Russia is striving to build and what kind of an economy it will have. The answers would help to resolve many problems and clarify the goals and perspectives of Russian higher education. ■

World Class Reform of Universities in Austria

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Austrian universities have been undergoing reform for over a decade. It started in the early 1990s with an Organization Act, which allowed universities to become more independent from state authority and to develop more efficient management structures. Since Austria has a public university system, this reform process was initiated by the Ministry of Education and Research.

During the 1990s, a whole range of reforms ensued, the most prominent of which created a more differentiated higher education market by permitting *Fachhochschulen* for the first time. This occurred in 1993, and the institutions have proliferated ever since. At the same time, the ministry launched an Evaluation Act prescribing mandatory evaluation for all courses at the university. Another example of reforms enacted by the

ministry formed the legal basis for establishing private universities through the creation of an accreditation board. Last but not least, in 2001 the ministry introduced tuition in Austria for the first time ever.

These examples show the general direction of reforms in Austria over the last decade: differentiation of the higher education market, a more competitive environment for universities, increased accountability, and greater professionalization.

These examples show the general direction of reforms in Austria over the last decade: differentiation of the higher education market, a more competitive environment for universities, increased accountability, and greater professionalization. In 2002, under the heading of creating world-class universities, the ministry presented its last but most radical proposal for changing the legal status of universities. The less than humble website (www.weltklasse.at) presents the ambitious scope of the reforms.

The new piece of legislation encompasses all the major parts of higher education (academic programs, employment, and organizational structure) and is meant to address the problems of efficiency, effectiveness, flexibility, accountability and competition, and overregulation.

Austrian universities have long been characterized by high dropout rates and lengthy time-to-degree. The strong tradition of democratic governance structures, with many committees, has also resulted in a slow decision-making process. Universities are known for their lack of flexibility in institutional management. For example, shifting funds between categories has been impossible. Also, funds are budgeted on an annual basis—leading to what has been coined "December fever" (i.e., heavy year-end spending in departments and institutes).

Austrian universities have had internally based performance measurement systems and an underdeveloped sense of public accountability. They have been under almost no competitive pressure either for students or for faculty. At the same time, the universities are highly regulated institutions, with state laws and mandates stipulating almost everything—from salaries, employment, academic programs, and decision-making structures to exam and graduation procedures.

As the range of targeted problems indicates, the pressure for reform was felt by both institutional leaders and policymakers. Accordingly, the ministry prepared a

new Organization Act, which was passed by Parliament in July 2002 and is expected to be implemented in October 2003, encompassing regulations for decision-making structures, employment, and academic programs. The New Organization Act of 2002 focuses on institutional autonomy, performance contracts, unified budgets, governing boards, and evaluation.

Universities will become independent of the state ministry and transformed into public corporations. The ministry will step back into a supervisory role, steering universities from a distance through performance contracts. Universities will be able to make the decisions on employment, academic programs, and resource allocation without ministerial approval. Performance contracts will form the major steering tool both between the ministry and the university as well as within the university (between the rector and the institutes or departments). Contracts will be based on performance measures, like number of graduates or research productivity. Part of the budget will be allocated based on performance. Universities will negotiate three-year unified, lump-sum budgets. With this, the universities gain complete autonomy as to which categories the budget will fund (e.g., personnel, equipment, materials, and books).

Governance structure will also change dramatically with the new Organization Act. A new element will be introduced—university boards. These will consist of five to nine outside members, nominated by the ministry and the university senate. They will decide on crucial issues like the rector, the organization plan, the budget, or the employment structure. The rector will take on a senior management function, supported by a team of vice rectors. The senate will lose most of its powers, focusing instead on academic programs.

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Evaluation will remain a major part of the university, encompassing courses, whole programs, and departments or institutes. Overall, quality control should involve all parts of the institution and should be used for promotions and resource allocation.

Clearly, Austria is in the lead among all German-speaking countries for introducing far-reaching reforms. The challenges are enormous and the contested issues are well known (i.e., democratic governance, financing the initial phases). Aspirations are high but it remains to be seen how universities in Austria will deal with this next, and largest, piece of reform in the long and arduous journey to becoming world-class institutions. ■

Graduate Training and Employment in Brazil

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Since the late 1960s, the Brazilian federal government has directed substantial resources toward the newly created graduate level at the most prestigious Brazilian universities. Direct support for high-level graduate programs provided by CAPES and other Brazilian agencies, bypassing the university bureaucracy, has allowed programs to recruit Ph.D. holders educated abroad as faculty members. Contrary to the experience at the undergraduate level, the government and the academic community have made a decisive effort to assure quality at the graduate level. The Fundação Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES)—the Ministry of Education agency in charge of graduate education—has created a sophisticated peer review evaluation system that successfully connects performance with support at this level. This evaluation, relying on the contribution of acknowledged academic leaders in all areas of knowledge in the country, has enhanced academic legitimacy; program evaluations in each area currently tend to be widely accepted by the academic community. Such programs have become the main or sole sites for the institutionalization of research in the Brazilian higher education system.

As a result of such efforts, Brazil today has one of the most impressive graduate educational levels among developing countries. In 2000, more than 70,000 students were enrolled at the master's level and 30,000 at the doctoral level.

To understand these figures it is important to see how the Brazilian graduate educational level is organized. In the Brazilian higher education system, master's programs are usually regarded as an intermediate stage in the training for academic life and not, as in the Anglo-Saxon tradition, the terminal stage preparatory to professional life. National agencies that grant fellowships for doctoral study abroad also require completion of a master's degree.

Little systematic information is available on jobs held by Brazilian master's and doctoral degree holders. This information gap is being bridged in part by a series of studies by a Brazilian research network. These research projects address the relevant questions for policymaking and for the design of courses of study: what are the