

The Brazilian Higher Education System: A Basic Primer

The following is a basic primer on the Brazilian higher education system, to serve as a reference for the AUCC workshop on strategic engagement with the Brazilian higher education sector. This primer is not intended as a comprehensive review of the system, but rather a guide to the basic structure of the system.

The tradition of higher education in Brazil dates back to the mid-1700s with the foundation of Jesuit colleges and the early 1800s, with the foundation of the first professional schools. Today, Brazil is home to world class universities, two of which were included in the 2010 Academic World Rankings of Universities (University of Sao Paulo and University of Campinas).

Structure of the Brazilian Higher Education System

The Brazilian higher education system is made up of both public and private (for-profit and not-for-profit) institutions. The 2006 Brazilian Educational Census listed 1895 institutions of higher education, of which 163 were universities. Nearly 50% of these universities are public, though 70% of the overall higher education market is private, as the number of private institutions has surged in recent years in order to keep pace with the demand for higher education. Admission to public universities is very competitive, given that students do not pay fees and due to the publicly-perceived higher quality of education. Public universities are seen to hold an advantage in agrarian and human sciences, such as teacher training and psychology, while private institutions are well-known for the applied social sciences, including law, administration and economics.

Institutions

The Brazilian higher education system is made of three types of institutions:

Les débuts de l'enseignement supérieur au Brésil remontent à la fondation des premiers collèges par les Jésuites, au milieu du XVIII^e siècle, suivie de celle des premières écoles professionnelles au début du XIX^e. De nos jours, le Brésil abrite des universités de calibre international dont deux (les universités de São Paulo et de Campinas) figurent dans l'édition 2010 du classement Academic World Rankings of Universities.

- *Universidades* are multi-disciplinary institutions that must include professional staff training in higher education, research, and the creation of human knowledge. One-third of teachers at these institutions must hold a Master's or a Doctorate. *Universidades* are more autonomous, with the mandate to open new course programs and set student enrollment numbers.
- *Federações de escolas* are also multi-disciplinary institutions, but do not have the same number of disciplines as an *universidade*. Slightly less autonomous in their course offerings and student placement offerings, they are not obligated to invest in research.
- *Faculdades*, while nearly as autonomous as the *federações de escolas*, are institutions that are typically specialized in one or two disciplines.

While private institutions are free to determine staffing needs and personnel decisions, all human resource decisions in public institutions are linked to the civil service and public-sector rules surrounding pay and working conditions. The nomination of a Rector, however, is a decision granted to the institution and is usually decided with considerable input from university staff.

Types of Degrees Granted

There are three main types of degrees offered by Brazilian higher education institutions:

1. *Bacharelado* / Bachelor / Undergraduate level
2. *Mestrado* / Master's / Post-graduate level
3. *Doutorado* / Doctoral / Pre-doctoral level

An undergraduate degree takes four to six years to complete, with the first two years designated as one of two core streams set by the Ministry of Education (MEC): the humanities and the sciences. Upper-level courses are dedicated to the student's chosen area of study. Though traditionally there were not many elective course options, some institutions are opening up their curriculums to allow for more choice.

Undergraduate admission is based on the vestibular entrance exam, typically offered once a year. Public institutions generally require high vestibular scores due to heavy competition. The vestibular is offered independently at each institution, but by law must cover the following subjects: Portuguese language, humanities, natural sciences, mathematics and one foreign language.

The Master's level in Brazil is similar to that of the North American system and normally takes two years to complete. In the academic stream, a minimum number of classes (usually five to eight) and a research thesis are required. In the professional stream, students do more class work and complete a project as an intern, including a final report.

The doctoral level is also similar to the North American system and typically takes four years to complete. The candidate must take advanced courses in their field of study, much like the requirement for a Master's degree, must pass an oral qualifying examination in order to begin work on their thesis, and must produce a thesis with a significant original contribution to knowledge in their field. The candidate must give an oral defence of their thesis.

Research

Brazil is one of the world leaders in research and development, placing within the top 15 countries in the world in terms of total output. It is clearly the dominant country in the region when it comes to research, having produced over 160,000 scientific documents in the last year. Seven out of ten of the most productive Latin American universities are Brazilian. In order to continue the rapid scientific and technological development that has secured Brazil a place on the world stage, the government has pledged to invest more in research and development.

Research is carried out primarily at universities, where 69% of Ph.Ds are found, compared to less than 10% of Ph.Ds found in research centres. In many cases, state-owned companies invest in research with institutions, creating their own private research and development centres, such as the state-owned oil company *Petrobras*, which is one of the largest contributors to higher education and research in Brazil.

Scientific research networks are set up throughout Brazil to bring together researchers to share resources and knowledge, such as the Centres of Excellence in Science, Technology and Innovation (PRONEX).

Related Ministries and Agencies in Brazil

Brazilian Federal Ministry of Education (MEC)'s mandate includes higher education, so that all higher education institutions are certified, regulated and accredited by the MEC.

National Council for Education (SESU) is an agency of the MEC that oversees the non-autonomous aspects of federal and private universities, such as staffing and overall curriculum.

National Institute of Educational Studies and Research (INEP) is an agency related to the MEC with a mandate to evaluate and improve the quality of Brazil's higher education institutions.

Brazilian Federal Agency for Support and Evaluation of Graduate Education (CAPES) is a government agency linked to the MEC and plays a key role in graduate studies in Brazil. CAPES' activities can be grouped into four main areas: evaluation of graduate programmes; access to and dissemination of scientific research; investment in training of high level research personnel; and promotion of international scientific cooperation, including coordinating scholarship programs and other international collaboration mechanisms.

Association of Brazilian Higher Education Institutions' Offices for International Relations (FAUBAI) is a non-profit organization that brings together managers in international affairs from 115 institutions to promote the improvement of international exchange and cooperation.

Council of Rectors of Brazilian Universities (CRUB) is a non-profit membership organization created to foster ties between Brazil's universities. Through their rectors, CRUB links together Brazilian universities to promote their integration, to strengthen their autonomy, and to improve higher education.

National Association of Presidents of Federal Higher Education Institutions (ANDIFES) is the official representative of the federal public institutions of higher education and dialogues with governments, civil society and other entities.

Forum of Brazilian Vice-presidents for Graduate Studies (FOPROP) is a not-for-profit organization made up of vice-rectors of research and graduate studies in Brazilian to represent member institutions, identify and represent regional needs in the area of research and graduate studies, and foment institutional cooperation, among other objectives.

Brazilian Ministry of Science and Technology (MCT) oversees the science and technology sector in Brazil, including much of the country's research. The MCT provides grants to advance the research and development sector in Brazil, as well as grants for exchange and international research opportunities.

National Council for Scientific and Technological Development (CNPq), an agency of the MCT, supports research, development and innovation projects across Brazil, including doctoral funding for Brazilian students, funding for foreign researchers in Brazil, publication subsidies, and exchanges between Brazilian institutions and international partners.

Council of the State of São Paulo Research Foundation (FAPESP) is an organization within the Department of Economic Development, Science and Technology of the State of São Paulo. One of 22 state science support institutions in Brazil, its annual budget of 1% of state revenue finances research through grants to address all areas of knowledge.

National Industrial Training Service (SENAI) is the largest complex of professional education in Latin America. SENAI promotes vocational and technological education, innovation and transfer of industrial technologies, helping to raise the competitiveness of Brazilian industry. SENAI trains over 2 million workers in 28 industrial areas.

National Confederation of Industry of Brazil (CNI) represents industry in the development of public policy and fosters an environment that favours business, competitiveness and the sustainable development of Brazil. CNI coordinates efforts aimed at supporting activities promoting excellence in professional training and qualification in Brazil, in alignment with the demands of industry.