

Post-Secondary Education in 12 Federations

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IN THIS SPECIAL SECTION OF *Federations*, ten articles examine post-secondary education in one dozen countries, located on all six continents, with federal systems of government. Revealing many similarities, this review also illustrates how these countries differ in how they govern, finance, and assure quality in their universities, colleges and graduate institutes.

One of the authors, Deryck Schreuder of Australia, began his report with the following comment:

“From their very beginnings all great federations embody split institutional genes: those which work towards a common constitutional recognition of regional pluralism and those which represent the powerful environmental factors driving and shaping their operating character. As in long-term marriages, a certain ‘mystery’ surrounds their uniqueness, endurance and language of discourse...”

That seems like a good place to start our own overview of the characteristics and policies of the post-secondary education systems of these 12 countries.

The histories of these federations are diverse. Some flow from their experience as British colonies, although their federalism diverges in important ways. Canada and the United States have consistently assigned primary responsibility for post-secondary education to their provinces or states. India, Nigeria, and Australia depend on their federal governments to organize the sector, although responsibilities have shifted over time, often evolving into a joint or concurrent function.

Of the federations never under British rule, the South and Central American countries tend to be highly centralized, par-

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ticularly Venezuela where the Chavez administration continues to push for a centrally dominant structure. Mexico is mixed, with a decentralized university system, while its polytechnics are directed by the federal government.

In Europe, the pattern is also mixed. Belgium is the most decentralized country with Switzerland not far behind. Germany and Spain have been highly centralized, but reforms in the past several years, particularly in Germany, are moving them towards decentralization.

The Lure of Centralization

The question of centralization is key to looking at federalism. Sudeep Banerjee of India distinguishes between “hold-together” federalism and “come-together” federalism. He suggests that in holding-together countries such as Australia, India, and Venezuela, the central government has considerable sovereignty over the sub-national units, but also more obligations in mandated fiscal transfers. When sub-national units have vested authority and access to tax revenues, as in Belgium, Canada, Switzerland, and the U.S., Banerjee argues that such federations are examples of a coming-together approach.

The countries examined here display great diversity in size, post-secondary structures and policies. They range from India, the largest federation, to Switzerland, with one percent of India’s population. The differences in population also carry through to economic circumstances: Switzerland’s national per capita income of US\$50,000 is more than 50 times that of India and Nigeria.

Canada and U.S. Lead the Pack in Participation

Differences among the post-secondary systems are far more common than similarities:

- In the U.S., six per cent of the population is enrolled in post-secondary education at any one time. Canada is not far behind,

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while in India and Nigeria that number is just one per cent. These differences are also reflected in the gross enrolment ratios, which compare the total number of students enrolled to the traditional college-age population – more than 80 per cent for the U.S. and Canada, compared to only 10 per cent in Nigeria.

- The types of institutions students attend range from Australia, where virtually all students enrol in public institutions, to Brazil, India, Mexico, and Venezuela, where one-third or more of students turn to the private sector. Most of the federal countries have few federal institutions, although in South America and Africa federal universities are often the nation's best and may enrol large numbers of students.
- The attainment rate – the proportion of the adult population holding a post-secondary degree – also varies hugely, from Canada, with the world's highest rate of 45 per cent, to India, Brazil, and Nigeria, with less than 10 per cent degree attainment. There are also wide differences in the number holding bachelor's degrees and those with more vocationally oriented sub-bachelor's degrees. In Spain, Switzerland and the U.S., the ratio of university degrees to sub-bachelors is three to one, whereas in Canada, the two types of degrees are split evenly. In Venezuela and Belgium, the number with sub-bachelor's degrees is higher than for university degrees.

Natural Resources Pay for Education

Similarities in post-secondary education policies in these countries are as likely as differences. For example, as Table 1 shows, in most of these federations, the sub-national constituent units

take primary responsibility for governing and funding the public institutions. Only in South America do federal governments have primary responsibility for the governance of most public institutions.

Nor does federation seem to be a good predictor of how much money countries devote to post-secondary education as a portion of their GDP. The U.S. and Canada spend nearly three per cent, while some of the other countries direct less than one per cent of their GDP to post-secondary enterprise. Among federal

TABLE 1: WHO FUNDS AND GOVERNS HIGHER EDUCATION?

	Mostly federal government	Mostly constituent unit (states or provinces)
Governance of Public Institutions	Brazil, Venezuela	Australia, Belgium, Canada, Germany, India, Mexico, Nigeria**, Spain, Switzerland, U.S.
Funding of Instruction at Public Institutions	Australia, Brazil, Mexico, Nigeria, Venezuela	Belgium, Canada, India, Germany, Spain, Switzerland, U.S.
Funding of University Research	Australia, Brazil, Canada, Germany, India, Mexico, Nigeria, Spain, Switzerland, U.S., Venezuela	Belgium
Funding of Student Financial Aid	Australia, Brazil, Germany, India, Mexico, Spain, U.S., Venezuela	Belgium, Canada, Nigeria, Switzerland
Assuring Minimal Standards are Met	Australia**, Germany, India, Mexico, Nigeria, Spain, Venezuela	Belgium, Canada, Switzerland
Approval of New Academic Programs	India, Nigeria, Venezuela	Australia, Belgium, Canada, Germany, Mexico, Spain, Switzerland, U.S.

* Provinces use federal social service funding to fund postsecondary instruction

** More of a joint function of federal government and constituent units

TABLE 2: HOW FEDERAL COUNTRIES COMPARE IN POST-SECONDARY EDUCATION

	Australia	Belgium	Brazil	Canada	Germany
Name of Federation	Commonwealth	Federal State	Union	Federal Gov't	Federation
Number and Type of Units	6 States	3 Communities	26 States	10 Provinces	16 <i>Länder</i>
Population (2005)	20 million	11 million	186 million	32 million	83 million
Postsecondary Enrolments (2005)	1 million	.3 million*	4.2 million	1.5 million	2 million
Enrolments as % of Population	4.9%	2.7%*	2.3%	4.5%	2.4%
Gross Enrolment Ratio	72%	63%	16%	60%	***
Enrolment Share					
Federal	**	***	14%	**	***
Subnational	100%	***	14%	***	***
Private	**	**	72%	***	12%
Attainment Rate					
Bachelor's/Master's	22%	14%	***	22%	15%
Sub Bachelor's	9%	17%	***	22%	10%
All Degrees	31%	30%	8%	45%	25%
Gross National Income per Capita (US\$)	\$32,220	\$35,700	\$3,460	\$32,600	\$34,580
% GDP Spent on Post-Secondary Education					
Public	0.8%	1.2%	***	1.3%	1.0%
Private	0.8%	0.1%	***	1.0%	0.1%
All	1.5%	1.3%	0.8%	2.4%	1.1%
Degree of Centralization	Mostly centralized	Highly decentralized	Mostly centralized	Highly decentralized	Centralized, but becoming less so

* authors' estimate

** less than .5 percent

*** data not available

Attainment Rate: The proportion of the population aged 25 to 64 that has received a post-secondary degree

countries, diversity of resources may be a more accurate indicator of how much they are willing to spend, since the countries that rely more on tuition fees or other private resources tend to have higher rates of post-secondary investment.

Availability of natural resources is another indicator of spending on post-secondary education from both public and private resources. Australia's comparative wealth, for instance, helps explain how it paid for radical reform in financing post-secondary education in the late 1980s, which has allowed for very rapid expansion since then. Oil resources are another good example – they clearly allow Venezuela, Mexico, and certain oil-rich states in the U.S. to spend more on post-secondary education. Enrolment growth peaked in Venezuela in the 1970s as oil revenues funded expansion. Even a relatively poor nation such as Nigeria expanded its post-secondary education system when global oil prices spiked in the 1970s. Of course, when oil prices decline, tax revenues shrivel, and institutions are unable to meet their payrolls.

Controlling the Purse Strings

Still, no matter what the source of revenue, there is a near even split in how education is financed, with five countries relying on their federal governments to support instruction at their public institutions, while in seven countries the constituent units are the primary funders. There remain, however, large differences in how financing is arranged. Australia has perhaps the oddest arrangement, with the federal government providing funds directly to public institutions even though they are governed by the states. Canada is another interesting example of federalism with the provinces deciding how to use federal block grants to fund various social services, including post-secondary institutions.

Financial support for university-based research and student aid are two policy areas that actually show more similarity than difference. In the 12 countries examined, almost all rely primar-

ily on the federal government to fund campus-based research. Only the sub-national communities in Belgium take primary responsibility for funding this activity. It's the same for student financial aid, for which two-thirds of the countries rely mostly on their federal governments, be it for non-repayable aid or student loans. Student aid may also be the policy area where there is most cooperation between the federal governments and their constituent units in order to ensure the aid is adequate.


Struggle for Quality and Innovation

These 10 reports also reveal various arrangements by which the federal governments and their constituent units maintain and improve the quality of academic programs. Most of the countries rely on their national governments to ensure that minimal standards are met in post-secondary education. Only a few rely for this on their sub-national units. But this may be deceiving since, in some countries, non-governmental units such as national or regional accrediting agencies assume this quality-control role where responsibilities might include approving whether students at institutions are eligible for government aid.

Another aspect of quality assurance – approval of new academic programs – favours the sub-national units. Only India and Venezuela rely on their national governments to make this kind of decision. Yet, it may not fall to the constituent units, either, as in some of the countries the process is actually one of self-regulation with little government input.

We end with another quotation from Deryck Schreuder:

“Democratic federal systems are among the glories of the Western liberal tradition. They are also human creations which have small regard for symmetry, let alone simplicity, as they evolve the politics and policies of their pluralistic modern nations.”

That is certainly true, and this review confirms that federal governmental structures may explain, but do not predict, how countries organize their post-secondary education systems. 

India	Mexico	Nigeria	Spain	Switzerland	United States	Venezuela
Federal Republic	Fed/Nat. Gov't	Federal Gov't	State	Confederation	Federal Gov't	Central Gov't
28 States	31 States	36 States	17 Autonomous Com.	26 Cantons	50 States	23 States
1.1 billion	103 million	132 million	43 million	7 million	297 million	27 million
10.5 million	2.6 million	.9 million	1.8 million	.2 million	17.7 million	1.2 million
1.0%	2.5%	0.7%	4.2%	2.7%	6.0%	4.6%
12%	25%	10%	66%	47%	82%	28%
2%*	26%	80%	9%	***	**	59%
47%*	42%	20%	80%	***	74%	59%
51%	33%	**	11%	**	26%	41%
6%	11%*	***	19%	18%	30%	13%
**	1%*	***	7%	10%	9%	15%
6%	12%	***	26%	28%	39%	28%
\$720	\$7,310	\$560	\$25,360	\$54,930	\$43,740	\$4,810
***	0.9%	***	0.0%	1.6%	1.2%	***
***	0.4%	***	0.3%	**	1.6%	***
0.3%	1.3%	1.5%	1.2%	1.6%	2.9%	2.4%
Has varied, now a joint function	Universities decentralized but polytechnics not	Decentralized but standards set at national level	Traditionally centralized but loosening slightly	Decentralized but moving toward more cooperation	Decentralized except for research and student aid	Highly centralized & becoming more so

Gross Enrolment Ratio: The number of students enrolled in post-secondary education as a percentage of the college-age population.