

Higher Education in Federations

Ottawa, 14-16 January 2007

POST SECONDARY EDUCATION: THE CHALLENGES AHEAD

Dr. Barbara ISCHINGER, OECD Director for Education

1. INTRODUCTION – The International World of Higher Education

Our comparative indicators track a rapidly rising demand for high-level skills. In virtually all industrialised countries, the relative prospects of those individuals who are well educated have risen, whereas we are seeing declining living standards for those individuals, and nations, that struggle with the transition to the knowledge economy. The reality is that the gap between what our education systems deliver, and what is required, continues to widen.

It is instructive to look at how the educational landscape has changed over the last decades, in terms of the proportion of individuals who had successfully completed a higher education qualification that is now the entrance ticket to the knowledge economy. Canada has seen an impressive growth in higher education qualifications. Among today's 55-64-year-old Canadians, those who graduated in the 1960s, 35% have a university-level degree, among today's 25-34-year-olds, it is 53%. But that is just about the average rate of progress that we have seen at the OECD level, such that Canada's relative position has actually slightly declined. Compare that with Korea. Two generations ago, Korea had the standard of living of Afghanistan today and it ranked 23 among today's OECD countries in terms of higher education qualifications. Today it is number 3, ahead of Canada, at least in terms of quantity.

Some people say this is all a zero-sum game and if education is expanding, there will be massive inflation on degrees and qualifications. But the evidence suggests that the value of highly skilled people does not diminish as their number gets larger, as is happening for low-skilled workers. For example, the earnings gap between the better-educated and those with lower qualifications is growing rather than shrinking and in most OECD countries and people without baseline qualifications face a significantly higher, and growing, risk of unemployment.

A look at today's entrants to higher education, an early signal of the potential future supply of graduates, suggests these trends to continue. North America has long led in higher education entry and enrolment, and its position remains strong. But in the Nordic countries of Europe, more than two-thirds of upper-secondary school-leavers now enter higher education institutions, significantly more than in the US and almost double the level in France and Germany.

Last but not least, we increasingly need to have countries like China and India on our radar screen. Even if graduation rates in these countries remain still well below the OECD average, the mere size of the populations at the higher education levels in these countries translates into a vast graduate output in absolute terms: in 2005, 4.4 million graduates left Chinese higher education institutions compared to 2.5 million in the EU, even if a significant proportion of the Chinese qualifications result from shorter vocationally oriented programmes and major quality challenges remain. Equally important, in most of the Asian countries, higher education students are also more likely to major in mathematics, sciences, computing and engineering -- the subjects most relevant to research, innovation and technological advance. This suggests that the graduates who are the cornerstone of economic prosperity in knowledge-based economies will in future originate disproportionately from China and India.

This suggests that the time when Canada and other OECD countries competed mostly with countries that offered low-skilled work at low wages is gone. Today, countries like China or India are starting to deliver high skills at moderate cost and at an ever increasing pace. We cannot switch off the pressures that result from this except at great cost to our own economic well being. We all know plenty of countries that have stagnated over the last century by trying to preserve their systems and jobs by keeping the rest of the world out.

The biggest challenge for us may, however, lie in the competition for advanced skills. In the past, the economies of countries like China or India could not provide adequate jobs for their own talent and OECD countries became major beneficiaries of their educational investments. For example, the proportion of science and engineering occupations in the United States that are filled by tertiary-educated workers born abroad increased from 14 to 22% between 1990 and 2000, and from 24 to 38% when considering only doctorate-level science and engineering workers. But with technology flattening the world, the time in which the only route to success for these students lay in emigrating to Europe, or the United States, is coming to an end. Indian engineers, for instance, can increasingly plug into the world from India, whether they are working for Indian companies or for companies in the OECD area that are outsourcing their services to India.

The outsourcing of manufacturing or services from Europe or North America to countries like China and India is not just motivated by obtaining cheaper and more efficient services, but also through boosts in quality and productivity. To some extent, this can be explained by the fact that low-wage, low-prestige jobs in OECD countries easily translate into high-wage, high-prestige jobs in countries with generally lower income levels. However, there is more to this. Our indicators also suggest a lack of ambition in many OECD countries that is mirrored in poor educational outcomes and aspirations. By contrast, in countries like Japan, Korea or Hong Kong-China, students, parents and teachers, whatever the socio-economic context from which they come, invest their time and resources in achieving as best as they possibly can in school and university, well aware that this is the most powerful lever for their own future success and that of their country.

PISA also asked 15-year-old students about their own expectations for their educational future. Although students' own expectations at that age may not always be realistic, they provide some indication as to what young people are striving for. The results show that 15-year old students in all Asian countries with available data have very high tertiary aspirations, with about 60 to 70% of them expecting to attain tertiary level education in Japan, Hong Kong China, Macao China and Thailand. Tertiary expectations even reach 95% of 15-year-old students in Korea. In stark contrast, the level of tertiary aspirations is low among the remaining OECD countries, with only half of them expecting to obtain a tertiary qualification during their lifetime. These comparatively low tertiary aspirations, particularly among European students relative to their Asian peers derive in part from the lack of social inclusiveness in many European education systems: a comparison of the aspirations of students for tertiary education by quartile of the students' economic, social and cultural status index underlines that the difference between aspirations of students from the top and bottom quartiles of the index is significantly smaller in most Asian countries than in Europe. Korea and Macao China stand out, in particular, with high expectations of all students irrespective of their economic, social and cultural family background.

2. HIGHER EDUCATION IN FEDERATIONS AND REGIONS – SOME ASPECTS

2.1 Governance

A federal structure by definition means that more levels of government are stakeholders in a higher education system than is the case with a centralized system (where there is only one government level in charge). There are, therefore, more government level players involved in the steering of the HE system. A critical point to recognise is that the task of steering the system, which is difficult enough for one level of government, becomes all the more trying when multiple levels of government are involved (as guardians of the public interest). For example, provincial or state level governments may have different priorities from each other and from the federal government. Achieving a world-class institution within a state or province versus within a nation may have different implications for levels and distribution of resources.

A key issue therefore is to set up mechanisms whereby all government-level players can come to achieve a consensus on an agreed overall and long-term strategy. The importance of developing a set of mechanisms that can achieve a consensus on the broad strategies for higher education cannot be over-emphasized. Given that such mechanisms are put in place, there is a further requirement that the

legislations and regulations, especially the financial strategies that are used to steer the system by different jurisdictions, are also harmonized so that they do not pull in different directions.

2.2 OECD tools

Whenever we at the OECD are examining an educational system, we are always looking at the extent to which it meets the three goals we consider as primordial; **quality, equity** and **efficiency**. In the case of higher education, **relevance** is obviously to be added. The question that needs to be addressed today is what implications does a federal structure have for these goals? Hence whether a federal structure helps these four goals to be better achieved or not? Let me go one by one. I will do it rapidly and in a quite theoretical way as for the time being, apart from a very few exceptions, we do not have much evidence on these questions at the OECD. But this is already a first step.

2.3 Quality

What is the main difference between a centralised HE and decentralised one? First and foremost, competition. Each province wants to have the best universities and therefore acts upon accordingly to attract the best teachers, the best students and to equip institutions with the most modern technologies. This can generate a healthy competition. For this to happen, decentralisation, in this sense, would not be enough but would need to be accompanied by a sufficient level of autonomy so that institutions can, in fact, compete. This would strengthen the competition principle, at the level of the institutions, to the benefit again of quality.

2.4 Equity

Building a nation state implies that equity goals be set at the national level. Indeed, what sort of nation would we be in if each sub-national entity could have for instance its own non-discrimination laws independently from the others? But what about the way such goals are implemented? In the US, as you know, Affirmative Action for the University registration was abolished in California in 1995, and several States are considering doing the same at the 2008 election. Is this desirable? An open question obviously. Interestingly, one can note that a decentralised system can very well pre-exist without such a drawback. A limitation to that effect is to be written in the appropriate legal text.

2.5 Efficiency

This is the question of value for money. Our view is that the more institutions are responsible for their actions the better their achievements. What we need here is thus autonomy of institutions. But, higher levels of autonomy must be accompanied by higher levels of accountability to ensure that efficiency is achieved in service the public purpose. Do we also need decentralisation? My guess is yes. For two reasons; first, it should be a provincial decision to allocate more or less resources to HE in view of other social demands (health, pensions, security, school...). In general, provinces are likely to be better aware of the regional nature of demand. Second, being closer to the HE institutions, the provincial authorities are likely to be more effective in monitoring the efficient use of financial resources.

2.6 Relevance

The objectives here are twofold; first, to make sure that the universities are fulfilling their role (knowledge creation, social, economic, cultural, ethical), and second that they adequately respond to the demand for skills. It is our view that both objectives can be better achieved at the provincial level. As I noted at the outset, the economic significance of higher education is great and it is growing. In recent years there have been many initiatives across OECD countries to mobilize higher education in support of regional economic, social and cultural development. It is widely acknowledged that higher education can and does make a significant contribution to regional development.

Regional policy, which for many years concentrated on compensating disadvantaged regions, is focused increasingly on competitiveness. Globalisation is making the local availability of knowledge and skills and the

transfer of technology and innovation more and more important. The growth of the knowledge economy implies a shift in emphasis from material to non-material assets (knowledge, skills, culture, institutions) and the resurgence of the region as an important arena for political and economic activity.

It is clear is that in order to be globally competitive countries need to invest in regional innovation systems. It is also clear that higher education institutions can and do play a key role in this. However, if it is easy to agree that mobilising higher education for development is an important objective, identifying and understanding how to achieve this is more complicated, and we have been conducting some work in this area which I hope will be of interest to you.

Regional development is often thought of in economic terms only. We, however, would like to see a wider interpretation. Key aspects of the evaluation relate not only to the contribution of research to regional innovation, but also to the role of teaching and learning in the development of human capital. We also look into their contribution to social, cultural and environmental development, as well as their role in building regional capacity to act in an increasingly competitive global economy.

Fourteen regions in 12 countries have taken part in the OECD review which we have launched.¹ The review will provide valuable guidance in policy and practice to higher education institutions and regional and national governments. At the same time, it has provided an opportunity for intense dialogue between higher education and regional stakeholders, and has allowed those taking part to learn from each other.

The participating 14 regions from 12 countries represent a wide variety of regional and national contexts and HEI types. They range from rural to metropolitan, and from peripheral to central regions. At the national level, the review embraces devolved as well as highly centralized governance systems. Canada is represented, and Atlantic Canada was one of the last regions to join the project. Their Self-Evaluation report is now available in the OECD website. But now is not the time to go into details, and as we have not yet received the results of the external review - the Peer Review Report will be published later in February – I will focus on some of the general outcomes of the review.

Territoriality is a complex concept for HEIs. Although almost all embrace some notion of territoriality within their mission statements and institutional plans (ranging from general notions of contributing to the society and international research to more precise commitments to local and regional communities) they operate within multiple and overlapping territories. They need to manage a portfolio of activities ranging from the global to the local. They will resist – often for good reasons - being identified too closely with one place. While many will see themselves as having a special responsibility to young people in ‘their’ region, they are under pressure to produce research that is internationally recognized. Institutions which started life as polytechnics and have struggled to achieve university status can be tempted to spurn their roots in the quest for international esteem (“glocalisation”).

The challenge is to manage the various territorial portfolios so that they reinforce, rather than weaken, each other and to establish mechanisms through which the national and international connections of HEIs can be mobilized to benefit the region.

Obviously national policy influences the ability of HEIs to respond to growing demand and to engage with their regions. Some institutions have considerable autonomy in terms of the orientation of teaching and research activities, while for others the regulatory framework exerts a strong homogenizing influence. For example, in continental Europe systems of higher education are often centrally managed and pressures/incentives to regional engagement are low. Anglo-American and also Scandinavian countries have

¹ Busan Metropolitan City (Korea), Canary Islands (Spain), Jutland-Funen (Denmark), the Jyväskylä region (Finland), the North East of England, Nuévo León (Mexico), the Øresund Region (Denmark/Sweden), the Sunshine-Fraser Cost Region (Australia), Trøndelag, the Mid-Norwegian region, Twente (the Netherlands), Valencia (Spain), and Värmland (Sweden), Atlantic Canada and North Parana in Brazil.

recently promoted greater institutional self management and encouraged greater regional engagement.

In this regard, whether a system is federal or not, in some general sense is less important than what funding is available and where regulatory competences lie. For example, so far as higher education is concerned, the Australian states have very little role in the mission and funding of institutions which is negotiated between them and Canberra. By contrast, in Spain, the role of regional Governments has been growing fast.

In centralized systems, mainline allocation of funds to public universities is often realized on the basis of criteria (population, number of students) that do not reward regional engagement. Unless they are given incentives to do so, institutions are quite naturally inclined to prioritise their national and international role.

The introduction of a regional agenda within systems where institutions have control over the nature of teaching and research is likely to require a stronger regional planning framework which brings together regional stakeholders to co-manage and co-ordinate and regulate the management and funding of teaching and research.

Emphasis on regional involvement seems more likely when funding is regionalized or responsibilities transferred to regional government with related taxation power. However, even if universities are funded by regional government, this does not necessarily imply that the orientation of the HEI is in the region. In Germany, for example, financial and administrative responsibility for HEIs rests with the 14 Laender rather than the federal government but there are few requirements from the Laender to engage with the region, and HEIs enjoy a significant amount of autonomy.

If we look beyond the administration of education, we can see that regional development remains a contested terrain for national Governments, with the involvement of many ministries. In unitary states without regional structures of governance, territorial development poses a fundamental challenge to the division of responsibility between ministries which are organised on a functional basis – education, labour, economic development, science and technology. In such situations, enhancing the responsiveness of HEIs to regional needs inevitably requires inter-ministerial dialogue and collaboration.

If countries want, and regions want, to mobilize their higher education effort, or part of it, in support of regional development, there is a need to make regional engagement (economic, social and cultural) explicit in legislation. It is also clear that in most cases, the institutional autonomy of HEIs needs to be enhanced by increasing HEIs' responsibility over curriculum and the use of human, financial and physical resources. Strengthening autonomy is however not enough, in order to ensure that HE will support the regional development there need to be incentives in place in the form of long term core funding and strategic incentive-based funding schemes. The academic reward system must send the right signals – if faculty see that they are more likely to be promoted for publishing articles than for promoting community health, then that is what they will do.

Last but not least, HEIs' accountability to society needs to be strengthened by developing indicators and monitoring outcomes to assess the impact of their performance. This is especially difficult, but if it is not done, the work is likely to be undervalued.

Regions with the help of higher education institutions can play a key role in making OECD countries globally competitive. There is ample evidence of a positive link between investments in regional innovation system and economic competitiveness. In practice there are, however, internal and external barriers for HEIs to become more regionally engaged. Our review will provide valuable guidance in policy and practice to higher education institutions and regional and national governments. The final report and key findings will be presented by our Secretary-General in Valencia in September, and I am sure you will find them interesting reading.

The point I want to make is that the relevance as regards skills requires some autonomy for the universities so that they can engage themselves with the private sector (eg Stanford and Silicon Valley).

Let me conclude. I took four criteria to assess Higher education: quality, equity, efficiency and relevance. I then look at whether a federal structure would permit to meet these criteria better than a centralised one. My conclusion is positive. However, we have to recognise that decentralisation alone would not do the job. We need also more autonomy of institutions, notably for quality, efficiency and relevance.

3. SOME COMMON MESSAGES

Higher education systems in OECD countries will have to make considerable headway if they are to meet the demands of modern societies. Some of these changes will require additional investment, but the evidence also suggests that money is a necessary but not sufficient guarantee for strong results. Put simply, education systems need to develop more challenging and more supportive learning environments and learn to be more flexible and effective in improving learning outcomes. And, they must scale back the inherent class bias and sometimes catastrophically regressive way of funding existing educational opportunities – taxing the poor to subsidize educational opportunity for the rich – in existing systems.

At the same time, the OECD indicators show that the challenges are being successfully addressed in some countries. These countries set ambitious goals to which others can aspire. The beginning lies in accepting international benchmarking in educational performance as a basis for improvement, rather than seeking reasons why education systems should not or cannot be compared. It is only through such benchmarking that countries can understand relative strengths and weaknesses of their education system and identify best practices and ways forward. The world is indifferent to tradition and past reputations, unforgiving of frailty and ignorant of custom or practice. Success will go to those individuals and countries which are swift to adapt, slow to complain and open to change. The task of governments will be to ensure that countries rise to this challenge.

Thank you.