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on Institutional Management
in Higher Education**

**Higher Education
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Prof. Michael Shattock
Higher Education Management and Policy
OECD/IMHE
2, rue André-Pascal
75775 Paris Cedex 16
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The main objectives of the Programme are as follows:

- To promote, through research, training and information exchange, greater professionalism in the management of institutions of higher education; and
- To facilitate a wider dissemination of practical management methods and approaches.

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Managing the Unmanageable: the Management of Research in Research-intensive Universities

by

John Taylor

University of Southampton, United Kingdom

All around the world, the importance of research undertaken within universities and other institutions of higher education is widely recognised by governments, industries and diverse stakeholders. Indeed, it is likely that the contribution of higher education in the generation of new ideas and knowledge, and as an economic driver, has never been higher. At the same time, universities face a rapidly changing environment shaped by pressure on funding, an emphasis on quality assurance and the increasing impact of globalisation, marketisation and new technology. Such pressures for change have placed a particular emphasis on the need for effective management of higher education institutions.

This article aims to bring together these two themes, looking at the management of research universities. What are the key management characteristics of some of the world's leading research-intensive universities? Are there particular models of internal organisation, leadership, resource allocation and human resource management that lend themselves to the successful encouragement of research? Further, how do these approaches relate to some of the inherent difficulties in the management of research?

The management of research: a conundrum

Research is an intensely personal activity, strongly dependent on the ideas and imagination of individuals or groups of individuals. Academic staff feel a fierce personal ownership of their research; it shapes and dictates their career development and their status with their peers. Research is ultimately linked with fundamental beliefs about academic freedom and the opportunity to challenge longstanding orthodoxies. Moreover, research, by its very nature, is unpredictable, moving in unforeseen directions with unexpected consequences; further, it is this unpredictability that often gives rise to some of the most important outcomes and is therefore to be applauded, not curbed.

Research, therefore, does not lend itself to control and management. Yet, in the fast-changing competitive world of today's higher education, there are constraints that require the application of some sort of management framework. Funding and quality issues require priorities to be agreed; adequate resources are needed to be expended in the optimum way; and there are legal and ethical controls to be applied. Research may also imply risk; for the modern university, risk-taking is an essential part of institutional vitality, but risk must also be understood and managed. Hogan and Clark describe the conundrum as follows:

“The arguments for and against centralised research planning are well known, but none the easier to evaluate for that. The purpose of a plan is to set priorities for development and influence the deployment of resources. Institutions in today's highly competitive environment cannot hope to be strong in all areas of research, and not to concentrate and build on strength could seriously disadvantage the research profile of the institution as a whole. The opposing argument is based on the fundamentally correct view that research initiatives are generated by individual academics who champion their project. If the best opportunities are not to be taken as they come along, initiative may be stifled and the research plan is in danger of becoming counter-productive. The usual way through the dilemma is to attempt to do both – set a small number of priority areas and retain development funding for the best new initiatives that arise outside the priority areas – as far as financial constraints will allow” (Hogan and Clark, in Warner and Palfreyman, 1996, p. 128).

It seems, therefore, that research cannot be left un-managed. As Fox observed: “Institutions do not do research: individuals do. But institutional conditions affect productivity” (1992, p. 105). The key issue is how to manage effectively in such a way as to maintain an appropriate working environment within which research can thrive. This paper will explore how this is achieved in six of the world’s leading research-led universities.

What is a “Research University”?

This article is primarily concerned with “research universities”. Research is undertaken by many academic staff in institutions that vary in type, culture and tradition. Some people would argue that every university should be involved in research and that the interaction of teaching and research is the guiding *raison d’être* for a university. Moreover, in recent years, the “definition” of research has widened, for example to include Boyer’s four scholarships (Boyer, 1990) and the emergence of new disciplines based on creative or professional practice (such as art and design or health-related professions). So, what are the distinguishing features of a “research university”?

A starting point is the predominance of research within the institutional mission; hence, the use of terms such as “research-intensive” or “research-led”. This does not mean that the institution is not committed to teaching and learning or to the social and community role of universities; rather, it means that the nature and content of these other activities are shaped by their research base. Further characteristics include the existence of pure or “mode one” research alongside applied or “mode two” research and some idea of disciplinary breadth. Thus, the League of European Research Universities asserts that:

“Basic research ... creates the new knowledge that is the ultimate source of most innovation in the economy, society and culture; and provides a framework for an education through which the scepticism, creativity and high level capability that society needs are embodied in people.”

“Research-intensive universities that couple world class research and education provide the most efficient means of providing this combination of basic research and research-based education.”

“Research universities uniquely have the disciplinary breadth perennially to re-configure their research efforts to address research needs and opportunities. Basic research should flourish alongside strategic and applied research and professional practice.”

(LERU, 2004)

Arguably, the concept of a “research university” is best developed in the United States. Here the *Carnegie Classifications of Institutions of Higher Education* offers two definitions:

“Doctoral/Research Universities – Extensive: These institutions typically offer a wide range of baccalaureate programmes, and they are committed to graduate education through the doctorate. During the period studied, they awarded fifty or more doctoral degrees per year across at least fifteen disciplines.

Doctoral/Research Universities – Intensive: These institutions typically offer a wide range of baccalaureate programmes, and they are committed to graduate education through the doctorate. During the period studied, they awarded at least ten doctoral degrees per year across three or more disciplines, or at least twenty doctoral degrees per year overall.”

(Carnegie Foundation, 2001)

Another characteristic of leading research intensive universities is the concentration of income from industry and commerce. Whilst such income is less influenced by reputation and brand, there is a high correlation between income and other measures of research esteem (Shattock, 2003, pp. 134-135).

To summarise, the following are some of the key characteristics of leading research universities:

- Presence of pure **and** applied research.
- Delivery of research-led teaching.
- Breadth of academic disciplines.
- High proportion of postgraduate research programmes.
- High levels of external income.
- An international perspective.

Management of research-intensive universities

To date, no attempt has been made to assess the management of research in research-intensive universities. It is important, however, to refer to some related studies that offer some clues; some of these studies cover types of university that overlap with research universities.

An important starting point is the work of Burton Clark, both on research universities and on entrepreneurial universities. Clark famously identified five management pathways towards the establishment of entrepreneurial universities (Clark, 1998):

- The strengthened steering core.
- The expanded developmental periphery.

- The diversified funding base.
- The stimulated academic heartland.
- The integrated entrepreneurial culture.

Underlying Clark's argument is the promotion of "self-directed" autonomy, variously referred to as the "stand-up" university or the "self-reliant" university. Research universities and entrepreneurial universities are not necessarily one and the same thing, but there may be some common elements in their management.

Similarly, Shattock has analysed the characteristics of "successful" universities. The following are among the main findings:

"That managing universities is a holistic process; the functions of a university are closely interlocked and mutually dependent so that a weakness in one function can affect others and strengths in key functions can be mutually reinforcing; recognising the integrated nature of university management is a key to success.

That the maintenance of financial stability is an important component in achieving academic success, but this can only be attained in the modern period from a diversified funding base in which the state does not provide the major proportion of the income; to manage this, financial literacy must be widely distributed and a degree of fiscal puritanism should be encouraged.

That collegiality is a more effective management tool for success in the core business of teaching and research, thus managerial direction.

That academic departments represent the essential building blocks of a successful university and that structures which relate departments directly to the centre of the university, without intermediary layers, provide shorter lines of communication and speedier decision making.

That the character and composition of a 'strengthened central steering core' will be one of the determinants of institutional success; leadership is essential but distributed, rather than charismatic and personal, leadership will be the most likely to produce sustainable high institutional performance.

That good governance makes a positive contribution to institutional success when the lay element in governance, the executive and the academic community work closely together; on the other hand progress will be inhibited if one of these elements becomes over dominant."

(Shattock, 2003, p. 176)

Again, "research universities" and "successful universities" are not necessarily one and the same thing; indeed, Shattock himself refers to the

possibility of success being defined on the basis of student-related measures. However, there is likely to be significant overlap and it is important to consider whether these same characteristics appear among research universities.

Looking specifically at the management of research, Bland and Ruffin (1992, p. 385) have identified twelve characteristics of a productive research environment:

- Clear goals that serve a co-ordinating function.
- Research emphasis.
- Distinctive research culture.
- Positive group climate.
- Assertive, participative governance.
- Decentralised organisation.
- Frequent communication.
- Accessible resources (particularly human resources).
- Sufficient size, age and diversity of the research group.
- Appropriate rewards.
- Concentration on recruitment and selection.
- Leadership with research expertise and skill in both initiating appropriate organisational structures and using participatory management practice.

In 2002, Di Sarli (p. 11) identified the following good practice at institution level in the management of research:

- Clear definition of the mission of the university.
- Definition of priorities in research fields.
- Definition of policies to balance fundamental and applied research.
- Definition of policies to support local development.
- Definition of policies of social accountability and operational transparency in the use of public and private funding.

Bushaway defines institutional research management as:

“The duties and responsibilities commensurate with the successful implementation of the research strategy and its daily operational implications, the control and co-ordination of specific research projects, their quality and related tasks of sponsor management” (Bushaway, 2003, p. 142).

His book sets out many different levels of activity, at institutional level and at the level of departments or schools. However, his work offers a practical guide to research management in general rather than an analysis of the key characteristics of research-intensive universities.

Finally, the OECD has made an important contribution to the understanding of research management in the project, led by Helen Connell, to analyse institutional responses to challenges arising from the implications of the changing education environment in research management. The conclusions (Connell, 2004, pp. 55-57) highlight three key areas of activity:

- Specialisation and professionalisation of research management, including the appointment of both academic and administrative staff to specific research management positions and upgrading the capabilities of staff throughout the institution to manage better research activities.
- Strategic research planning on an institution-wide basis, including the establishment of research priorities and development of an institutional research plan, allocation of resources for research, evaluation of research quality, both internally and externally, creating an ethical framework for institutional research and decisions how far to commercialise institutional research.
- An emphasis on the research career as an institutional responsibility, including graduate career training programmes, support mechanisms for early career development, continuing staff development, developing a research orientation in research-poor institutions and the fostering of interdisciplinary career patterns.

These conclusions are clearly directly relevant to the management of research in research-intensive universities. However, the OECD study, like that of Di Sarli, covers a wide range of types of university, including those without a strong research record, and is not specifically focussed on research universities and their particular characteristics.

Research project

In order to investigate the management of research in research-intensive universities, a series of interviews was undertaken in six prominent research universities: one from Canada (University A), one from the United States (University B), two from the United Kingdom (Universities C and D) and two from Australia (Universities E and F). Selection was on the basis of outstanding performance in published indicators (publications, income), reputation and comparative standing (“league tables”) and institutional commitment to research (mission). Interviews were undertaken in 2004 and 2005 and included Vice-Chancellors/Presidents/Rectors, other senior staff (e.g. Vice-President, Heads of Research Offices), and academic staff. All six would be immediately recognisable as among the leading research-led universities in the world.

In the rest of this article, some of the main findings from this research are discussed, leading to the identification of some common characteristics of research management in research-intensive universities.

Management philosophy

The difficulties and contradictions involved in attempting to manage research have already been identified, and were certainly experienced by all six research universities. Several interviewees made a point of emphasising that they did not attempt “to manage” research. In University B, for example, a senior officer asserted that: “We do not and cannot manage research. We appoint the best people and then let them get on with it” (University B).

Universities A, E and F, all expressed similar views. However, in discussion, it rapidly became clear that, in practice, research was managed; the assertion represented in part a confusion between research management and academic freedom and in part a rejection of an over-managerial approach that would be alien in an academic culture. In reality, it was not the case that research was outside the realms of institutional management. Indeed, the reverse was true; research was of such importance to the institution that it permeated all aspects of management. The key point was one of management style: encouraging, supporting and monitoring, but not, except in certain circumstances, directing and controlling.

The two UK universities in the study took a rather different view. Both institutions shared the basic concerns about research management. However, their management style was more openly proactive. This reflected the external environment within which they operated and, in particular, the existence of the Research Assessment Exercise (RAE), which influenced core Government funding for research. The RAE dominated the thinking of both UK universities, not only because of its direct impact on funding, but also because of its wider consequences for institutional and subject area status (with knock-on effects on student recruitment and staff recruitment and retention). A senior officer in University C commented:

“The management of research should be about more than the RAE. Sadly, we have become obsessed with the RAE. When it started, the RAE forced us to develop our research management – we needed to change. But now the tail is wagging the dog.”

The two British universities differed in another respect. Both universities expressed a need to justify their research activity in what was regarded as a hostile external environment; to defend their emphasis on research to Government, to industry and employers, to students and to other stakeholders. This resulted in a more interventionist approach to management.

All six universities recognised the presence of Boyer’s four areas of scholarship:

- The scholarship of discovery research.
- The scholarship of integration, including the writing of textbooks.

- The scholarship of service, including the practical application of knowledge.
- The scholarship of teaching.

However, it was equally clear that all six research universities placed a particular emphasis and value on the first of these scholarships: “discovery research.” In each case, it was argued that it was this “original” research, “the creation of new knowledge”, that was at the heart of the institution and provided the vital lifeblood that sustained all other activities and forms of scholarship. This, in turn, influenced approaches to resource allocation, performance management and human resource management, and was seen as a distinguishing feature of a “true” research university.

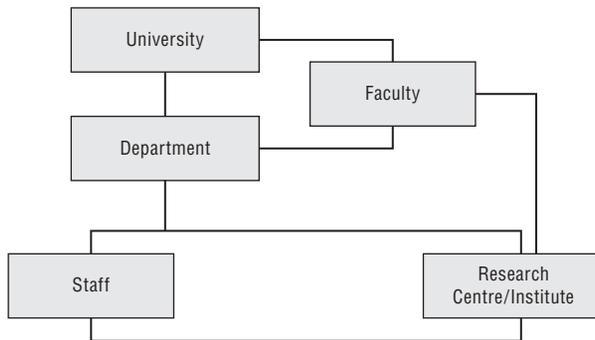
Another characteristic was a commitment to institutional growth, including expansion in the range of activities and the size of the institution. With growth, came additional resources and influence, including the capacity to recruit more active researchers. Possible adverse effects of growth on the quality of activity were recognised, but were seen as an issue to be managed, not as a reason not to expand further.

Taking the six universities as a group, the importance of management of research was clear. There was, in reality, no question of “*laissez faire*”. The key difference was one of approach, passive management or active management, which in turn was largely the result of differences in the external working environment. Both forms of management provide for support and encouragement of research and for scrutiny of performance. Passive management tends to rely on external, market forces for the emergence, retention and eventual decline of research activities and research groups; new groups appear when they identify and exploit new gaps in the research market. They are heavily dependent on external funding and therefore rise and fall by their own efforts. The University can help and support, and will do everything possible to create an effective working environment, but, in the end, researchers must survive through their own efforts, reflecting the quality and relevance of their research. By contrast, active management involves both support and encouragement with the direct identification of research to be developed and the allocation of resources to sustain these decisions. How these decisions are reached, whether it should be at institutional level or within academic units, may vary, but it represents an attempt to anticipate and moderate the effects of the research market and to develop a balanced research portfolio across the institution. Both models aspire to encourage the initiative and drive of individual researchers and both models aim to release the drive and imagination of talented, ambitious members of staff; the difference relates to the working framework and to levels of management interaction within the institution.

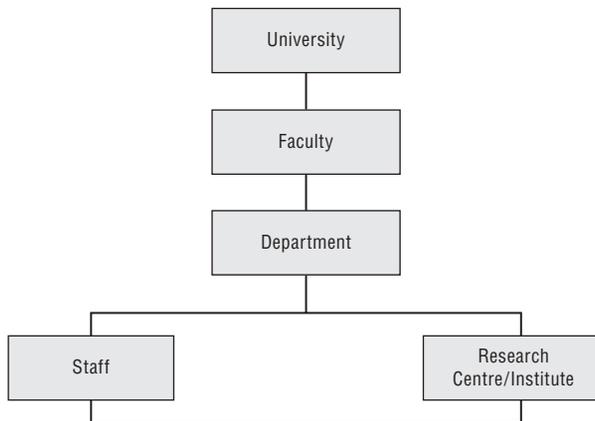
Organisational structures

The management and encouragement of research is a prime determinant of organisational structures in all six research universities. There is no single model. Traditionally, the academic department has been seen as the main organisational unit for the delivery of research, providing an organisational administrative, cultural and intellectual home for both individual members of the academic staff or for research groups. For Universities B and F, the department remains the primary organisational unit, based on separate academic disciplines (e.g. Department of Politics or Department of Civil Engineering). However, the managerial function varies.

University “B”



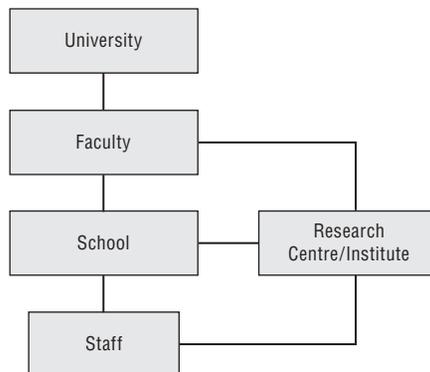
University “F”



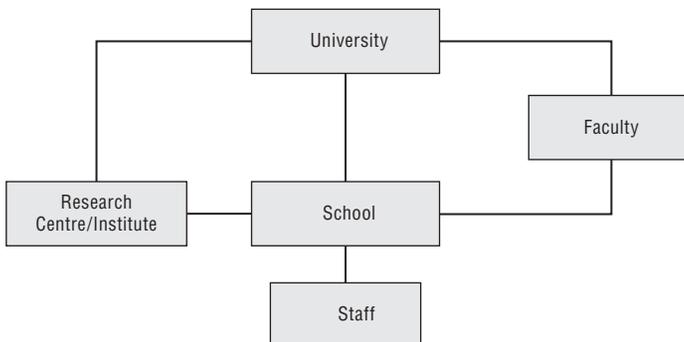
In University B, the Department has a dominant role in research strategy, funding, management and quality assurance; the main reporting line is to central university management. In University F, the faculty has a more direct involvement in research management, with an active role in strategy resource allocation and human resource management.

Universities A, C, D and E have very different structures based on “schools” rather than departments. A school represents a larger organisational unit, often bringing together a group of related disciplines (*e.g.* School of Humanities or School of Engineering). Again, there may or may not be an intermediate level of management at Faculty level. Within schools, staff may be clustered by research groups. Existing alongside or within the schools may be research centres or research institutes.

Universities “A” and “C”



Universities “D” and “E”



The constitutional position of research centres or institutes, the focus of research activity, had exercised all six universities, especially in terms of their relationship with schools or departments. Did they have some separate identity? How were they funded? How were issues of line management resolved? Again, the answers varied. In some cases, research centres had an independent, quasi-departmental status (University D); in other cases, the Centres existed within departments. The key point from all the universities was that any managerial tensions had been identified and resolved; ongoing uncertainty led to research inefficiency.

The six universities therefore show four different models of organisation. In each case, the university argues that the structure reflects the needs of effective research management. There is clearly not a right or wrong model! Organisation must reflect local circumstances, especially institutional culture and history, and the range of disciplines. However, the interviewees present a common set of requirements from which they reached their different answers:

- **Speed of response** – the ability to reach decisions quickly in order to react rapidly to external opportunities. All the institutions stressed the need to be “quick on your feet”. This required short lines of decision-making and a minimisation of formal committee structures.
- **Flexibility** – the potential to reconfigure and restructure resources (including academic staff) without disproportionate disruption. This included the creation and dissolution of new research centres as needed, reflecting external demand and changes within academic disciplines (emergence of new subject areas and the decline of others).
- **Critical mass** – the size of an organisational unit. Senior officers in all six universities regularly referred to the importance of size, both in terms of operational efficiency (spreading the cost of research management and reducing duplication of support services) and in terms of academic vitality (stimulating interaction between the maximum number of colleagues and enhancing the research experience for staff and research students). Across all six universities, there was a unanimous view that the small academic department was no longer sustainable as a primary organisational unit for research in a research intensive university. There was also a common view that research now required group organisation. Whilst the individual researcher could survive in certain subject areas, they should still be integrated within wider subject based groups or clusters.
- **Interdisciplinary research** – The six universities shared a common view that much of the most important research now occurred at the interface between traditional academic disciplines. The need to encourage and facilitate interdisciplinary research was therefore a prime determinant of

organisational structure. In University D, for example, a key part of the rationale for moving from a departmental structure to larger schools was the desire to encourage interdisciplinary research.

- **Devolved responsibilities** – All six universities argued that a high level of devolution in management encouraged both initiative and innovation and quicker and more informed decision making. This did not negate the overall institutional responsibilities for broad strategy and achievement, but was essential if researchers were to have the freedom to work with the minimum of bureaucratic interference and distraction.
- **Strong Leadership** – The research universities were characterised by a combination of powerful, visionary leadership, with a firm, unwavering commitment to the research-led mission, and devolved operational responsibility. Strong leadership was taken to include consistency of purpose, strategic vision and an ability to take difficult decisions. Such leadership should exist both at the head of the university as a whole, but was also necessary within academic departments and schools.
- **Effective management** – Throughout the interviews with senior officers and with academic staff, there was an emphasis on good communications and effective sharing of information. Opportunities to participate in management and decision-making were important. This sense of involvement and inclusiveness was common across all six universities. At the same time, however, there was an equally strong view that “managers should be allowed to manage” and that researchers should not get involved with the minutiae of university or school/department management. Underlying these comments was a view shared across all six universities, that collegial models of management were no longer the most appropriate for the modern research university. Provided that opportunities were retained to provide for a sense of involvement and, most important, for academic interaction, managers (both academic and non-academic) should be free to manage, subject to accountability. Thus, in the research university, academic staff were increasingly (and voluntarily) being spared some of the administrative load previously associated with an academic position (e.g. committee work, admissions, financial management).
- **Co-ordination** – Each of the research universities studied had a senior officer with overall responsibility for research, normally a Vice-President (Research) or Pro-Vice-Chancellor (Research). In practice, their role varied widely. At University F, the position was mainly concerned with overall co-ordination and policy; “a champion for research within the University”, but with little direct role in strategy or resource allocation. By contrast, in University E, the post-holder had direct control over significant resources, which was used to encourage new research initiatives; in this case, the

incumbent was also very proactive in initiating the review and scrutiny of research at departmental level. The importance of an institutional leader is clear, both as a figurehead, but also to provide overall direction.

Research support offices

The research universities placed a strong emphasis on creating a helpful working environment within which research is conducted. To this end, all six institutions had research support offices. The precise activities varied between institutions, but normally included:

- Co-ordination of overall university strategy in research. Interestingly, the extent to which the staff in these offices were actually involved in forming the strategy varied; commonly, this was left to other senior officers and those involved in academic planning.
- Information and advice – provision of information about funding opportunities. All six institutions emphasised that this was a proactive function, actively seeking out funding opportunities and giving specific targeted guidance on research priorities and application procedures. There were frequent references to the need to be “in the know” or “on the inside track”, to be aware of new research initiatives before they were known to others.
- Assistance and direction of costing and pricing procedures. These offices undertook the detailed costing of research proposals; in particular, they had a specific role in the recovery of indirect costs. Increasingly, in a market-based, competitive world, they were also involved in pricing, as distinct from costing, of research.
- Co-ordination of major research initiatives.
- Advice regarding legal and ethical aspects of research, and about intellectual property, including implementation of university regulations. This could involve an active role in the negotiation of research grants and contracts. Each of the universities also possessed specialists in the exploitation of research and “technology transfer”, including legal specialists working on patents, licences and development of university companies.
- Development of a code of practice on the conduct of good research (record keeping, data preservation); avoidance of plagiarism.

Much of the work undertaken by these units was advisory in nature. However, in universities A, C and E, academic staff wishing to apply for funding were required to submit proposals through the research support office. Such compulsion sometimes caused resentment, but was seen as essential in order to avoid or control financial loss on grants and contracts, to ensure appropriate quality assurance and to provide consistency and co-

ordination (reference was made, for example, to avoiding different approaches being made to the same funding body).

A further important aspect of the work of the offices in Universities A, E and F, was the use of “professional application writers” who would work with academic staff in the development of new proposals.

All six universities stressed the professionalisation of their research support services, able to ease the administrative burden for academic staff, but also able to investigate new research developments. The importance of networking was regularly mentioned, especially in competition for research funding. Equally important was the need to be helpful, constructive advice; to be a friend and a *de facto* member of the research team, not merely a regulator and enforcer of the rulebook. To this end, all six universities employed staff with personal experience of research in their research support offices.

Resource allocation procedures

The detailed resource allocation procedures adopted varied between the universities, reflecting differences in national arrangements for the funding of research. Most were income-based with devolved financial responsibility. In particular, the need for departments or schools to have the freedom to manage resources to enhance their research was regularly emphasised. However, the interviews revealed a number of common principles that may be applied to research universities:

- **Incentives** – All six universities recognised the importance of providing financial incentives to departments and schools, and to individual members of staff, in the pursuit of their research. Such incentives often related to the proportion of indirect costs retained by grant holders or their departments. Alternatives included the use of premium weightings for postgraduate research students and the relaxation of central costs once certain levels of external income were attained. University E operated a more centralised system where funds were retained at university level and then reallocated to reward success in publications and/or grant income.
- **Diversity of Funding** – The research universities share a number of financial characteristics, but a key factor is diversity of funding sources. Five of the six universities studied are “public institutions”; the sixth is a “private, not-for-profit” institution. However, all six show a mix of funding from Government and private sources, from industry; from charities, from home and from overseas. All six demonstrate a range of other income generating activities, from endowments and gifts to university run businesses and the exploitation of university buildings and estates. All six are highly adept in their financial management. Diversity of funding provides additional resources for investment in research and helps to offer

continuity in research support; it helps the institution to plan its own future without undue dependence on single and often erratic funding sources. Much research income is “in and out”, to be spent on a particular grant or contract, but diversity offers the availability of “free” money to be used by the institution as it wishes. Such freedom is often essential in developing new research activities without an established record of income generation. The same argument underpins the retention of core Government funding for research, a point emphasised in particular by the UK and Australian universities studied.

- **Risk acceptance** – Linked with the availability of “free” funds is an acceptance of the need to take risks. This might include the decision to invest in new areas of research, new facilities or new staff, or the decision to retain an area of activity that is underperforming against a clear development strategy. Risk must be managed and considered carefully, but senior officers in several universities (Universities A, D, E and F in particular) all stressed the previous investments in “risky” or speculative research developments that had paid off handsomely in terms of subsequent research achievement. Formal risk management procedures were in place in five of the six universities studied.
- **Investment funds** – All six universities operated devolved financial systems, but they also maintained some central development funds, either by “top slicing” or by internal taxation. Such funds were used especially to develop new areas of research. Commonly, they were also used for “opportunistic” expenditure (*e.g.* to assist with additional recruitment of leading researchers). The universities concerned all assessed such expenditure very carefully, alongside formal business plans. The key point is clear: the ability to invest in new activities, thereby maintaining the essential vitality of research in the institution, in the long term.
- **Awareness of cost:** A feature of the financial management of all six research universities was a deep awareness of cost among all those involved in management and delivery of research. In particular, the need to cover indirect costs was regularly emphasised; if full costs could not be covered, this had to be undertaken knowingly and in full knowledge of the consequent shortfall. In most cases, this current awareness, which clearly formed a high management priority, represented the outcome of previous or continuing under-funding of research by external funding bodies, a trend with which the universities had themselves been complicit. Across all six universities there was recognition that such under-funding could not be sustained in the long-term. Both UK universities, for example, pointed to the outcome of the recent Transparency Review as highly significant in shaping the present financial management of research. This Review, which highlighted serious under-funding of research, supported by cross-subsidisation from teaching and

from other areas of activity, has led to a new appreciation of the full costs of research by UK universities and funding bodies. Awareness of cost is therefore a feature of research management in the research universities. Each institution emphasised the need to create such awareness and to avoid the temptation to undertake work “on the cheap”, despite pressures, often from academic staff themselves, to the contrary.

All six research universities in this study would be regarded as “wealthy” institutions. This can cause resentment among aspiring research universities and there is ample evidence from these institutions that resources are deployed to strengthen their position still further. These universities can invest in new facilities and can attract the “best” staff, often by recruitment from other institutions, thereby maintaining their research pre-eminence at the expense of others. However, all six universities also exercised good stewardship and prudence in their management of resources in support of research; their ongoing research success shows what can be achieved through effective management. This is a lively debate, especially in the United Kingdom and Australia, where there are continuing moves to concentrate research in a smaller number of institutions. The counter view is that research would be advanced by a more equal distribution of funding and of the opportunities for research that are thereby created. For the purposes of this paper, it is sufficient to note that among the characteristics of the research universities are the presence of significant resources *per se*, but also financial stability and skilled, professional management.

Research plans

The OECD study of research management places a strong emphasis on formal planning procedures leading to the preparation of an institutional research strategy (including reference to research priorities and resource allocation). However, the approach of the six research universities was much less convincing. Universities B and E had no formal, institutional research plan; universities C, D and F had plans but were openly sceptical about their value as either strategic or operational documents. The prevailing view was best summarised by University A where a senior officer commented as follows:

“A general research plan is no use. To produce a plan with more specific targets is inappropriate because the situation is changing all the time. Research changes so much and so rapidly that a detailed plan would be too restrictive; we would have to change it day to day. Sometimes we have to produce a plan to meet the requirements of external funding bodies; we just prepare something meet their needs... In research management, you must be able to respond to new opportunities and new ideas; formal planning is no use.”

University C had a research strategy, but this had not been updated for a number of years. Academic schools were expected to plan their research and this was monitored within the University. University D had an institutional research strategy, but this was regarded as a “very bland” document, of some value as an external statement of the University’s research commitment and strength, but of limited value as a management tool.

Institutional research plans therefore play little role in the management of research in these universities. Here, there is a key difference from other institutions or aspiring research universities where difficult decisions have to be made about the weight to be applied to research relative to other activities and about particular areas to be developed. In the research universities, research underpins all areas of activity; every academic unit is expected to be active in research. There is no need, other than for presentational reasons, to maintain an institutional strategy; the emphasis of planning lies in the academic units, as the main points of delivery.

Linked with this scepticism about the value of plans is an even stronger concern about the value of “research committees”. All six universities reported that such committees, whilst there was a superficial attraction given the commitment to research of the institution, often struggled to find a clear role or to exert any real influence.

Performance management

Whilst the research universities preferred not to engage in active institutional planning of research, this most definitely did not mean that the research performance of academic units was overlooked. In all six research universities, a high performance culture pervaded all the levels of management involved with research. Senior managers, including the Vice-Chancellor/President and Deputies responsible for research, middle managers, including Deans, and Heads of Department/School and Heads of research groups, were all intimately aware of both institutional performance relative to peer group competitors and over time, and the performance of individual departments and schools; indeed, the performance culture extended to the level of individual members of staff.

Universities spoke openly about their use of performance indicators. University E used a detailed set of statistics covering seven other Australian universities, broken down by academic subject area, and was now developing international benchmarking. University D also used a set of national indicators and had developed a set of internal management tools based on output targets agreed with individual Heads of School. In this example, Heads of School had been asked to specify the measures necessary for international status in their particular subject area (*e.g.* number of papers in specific named

journals or level of peer reviewed grant income); in this way, the University had successfully reflected difficulty in research practice between disciplines.

In each of the universities, detailed information on performance was openly available and circulated within the institution, thereby encouraging a further level of peer pressure; under-performance in one subject area would be known to colleagues elsewhere in the institution. University A referred to this as “managed internal peer pressure”. Moreover, all six universities openly used information about the performance of individual members of staff.

Among the key performance indicators used in the research universities were the following:

- Input measures: Research income (by source)
 Numbers of research students
 Numbers of research staff
 Numbers and percentage of research-active staff (especially in the United Kingdom)
 Applications for research funding (by whom, to what sources)
 Success rates in applications
- Output measures: Numbers of publications (by outlet *e.g.* peer reviewed journals)
 Citations*
 Completed research student theses
 Applications of research (patents, licences)
 Academic distinctions (editorships, special awards)

There is no doubt that the open, regular use of performance indicators and targets was deeply embedded in the research universities. It was striking from the interviews how well informed were managers at all levels about research performance of academic units and individual members of staff. This approach was important in fostering an intensely competitive ethos, both internally and externally. Performance indicators were also used to highlight under-performance. Responsibility for resolving under-performance of academic staff normally rested naturally with Heads of Department or Schools. Many managers interviewed were clear that life could be “very uncomfortable” for such staff; initial responses included increased teaching and/or administration, but more often than not there would be questions raised about the individual’s position in the university.

Another form of performance management used in most of the universities studied was external peer review. For example, University C had a particular department that was thought to be under-performing over a long

* The use of citations was recognised as controversial in all six universities. At the same time, all six actively used such analysis, arguing that this was valid for particular subject areas and if used alongside other forms of analysis.

period. External advice was sought, including a visit and detailed discussions with all staff, regarding whether the department should be retained or closed; the former course of action was agreed and the external advisers then became consultants in the restructuring that was executed. More generally, all six universities regularly used external reviewers to comment on research achievements. There are a number of key elements, therefore, that distinguish the research universities:

- Constant, regular and rigorous self-assessment.
- Systematic benchmarking against competitor institutions, both at home and international.
- Open, systematic use of performance indicators.
- Use of external peer review, both for information gathering and as change agents.
- Explicit, deliberate promotion of a competitive culture.
- An acceptance that under-performance, once identified, must be resolved, either by remedial or corrective action or, if necessary, by the termination of activity.
- This is not to say that such characteristics are unique to the research universities; far from it. However, they are clearly important factors in the enduring success of these six universities over many years.

Human resource management

The quality of individual researchers is of paramount importance for the research universities. All six universities placed a strong emphasis on human resource development. This took various forms:

- **Staff appointments** – Recruitment policies in the research universities were highly selective, with a strong emphasis on research achievement and potential. University B stressed the need to establish an international reputation in research before full appointments could be confirmed. This was regarded as a very tough process; academic staff unable to meet the required standards frequently moved on before a final decision was made. Other universities also placed an increasing emphasis on the importance of rigorous probationary procedures. In the process of initial appointment, the research universities all openly targeted key individuals, often waiting some length of time in order to secure the right appointment. Similarly, for senior appointments, the use of advertising was seen as a formal requirement rather than an effective process; most appointments were by formal or informal “headhunting”, intended to ensure that the universities secured outstanding individuals who would “fit” the research profile required. Commonly, this also meant the recruitment of whole research

teams, not just a single appointment. The research universities were also very willing to devise attractive packages of remuneration and other benefits to secure the right appointments, often including major infrastructure investments in addition to salary. A final characteristic mentioned by all the universities was the fact that they were seeking to make the best appointments in an international market; to this end, universities in North America, the United Kingdom and Australia were searching the world for the best researchers.

- **Staff development** – The research universities all had well established programmes of staff development linked to research, including guidance in the preparation of research proposals, project management, postgraduate supervision and writing papers for publication. Most of the universities also used mentoring schemes, linking younger staff with experienced researchers; in one university, some concern was expressed about the implied patronage, which could disadvantage some staff. Research performance was regularly assessed in staff appraisals and all the universities made use of agreed targets for annual research outputs. Reward mechanisms were also geared strongly to reflect research performance, including salary reviews and promotion; the use of accelerated promotion schemes was commonplace in order to ensure that universities retained outstanding researchers. Academic staff were also supported by funding for travel and conference attendance and by regular periods of study leave for intensive periods of research or writing.
- **Conditions of employment.** None of the six universities used contracts of employment that specified hours of work or time to be committed to research. Staff were expected to work the hours necessary to achieve the desired outcomes. All the institutions recognised that staff worked long, often excessive, hours on their research.

Human resource management in the research universities reflected both the crucial importance of the individual member of staff in the generation of original research and the fiercely competitive world in which the institutions were operating. Strategies were developed to recruit the best researchers and to retain the best researchers; each university was acutely aware that they could lose “star” researchers to other institutions at any time. Outstanding researchers were commonly targeted at a very early age and “groomed” before making full appointments. Salaries and benefits were obviously important, but all the universities were also conscious of non-material benefits. University A, for example, argued strongly that attractive, well designed buildings, in fine, landscaped grounds and excellent staff social facilities were vital in creating a working environment that would help to retain key staff.

Teaching and research

A final, and possibly surprising, area that characterised the research universities was the emphasis placed in management upon teaching as well as research. All six institutions emphasised their role in teaching students, undergraduates as well as postgraduates, alongside research; none of the interviewees favoured “research-only” approaches. In University C, new course programmes were required to demonstrate the integration of research within teaching. In University D, a senior officer contrasted the vitality of university research with the narrow view of either Government research units or industrial research and development groups; he was an engineer, and had worked in all three, and he was totally convinced that the need to teach compelled academic staff to take an overview of their subject areas, to retain a “freshness” of approach and to respond to unexpected questions, all of which directly benefited their research. Similar views were expressed in all six universities. In University A, academic staff referred to the “inspiration” provided for younger students by working alongside active researchers; research also provided “state of the art” facilities, especially in science and engineering, which would otherwise be unavailable for undergraduate students to experience. Underlying these comments in all six universities was a strong philosophical commitment to the integration of teaching and research in the institution to the mutual benefit of both activities.

The link between teaching and research was part of the core management philosophy of the research universities. However, the interviews also revealed some uncertainty about how this approach should be turned into practice. Large areas of management were concerned with either teaching or research (*e.g.* the positions of Vice-President Research and Vice-President Teaching and Learning, the allocation of separate funding streams for teaching and research, the separate monitoring of teaching and research). The response was to allow individual members of staff the freedom to pursue their teaching and research, drawing the two strands together in different ways, at different stages as appropriate for the work in question. This approach required a level of self-confidence and self-belief within the institution that was a feature of management style within the research universities.

Conclusions

This study has revealed much about the management of research-intensive universities. It must be stressed that there is no “right” way to manage these institutions; good management must reflect institutional culture, local and national circumstances and many other contextual factors. It is also important to recognise that this paper has considered six well established research universities; different models with different approaches

may be required in less research intensive or aspiring research universities. In particular, the need for planning and highly selective resource allocation may be more important in the developing research university. The universities in this study apply such principles, at the margin, in making new investments, but there is an underlying assumption that all academic staff and all academic units are undertaking high level research; competitive prioritisation within the institution is less of an issue and the main competitive focus is external.

There are, however, some common characteristics that seem to link the research universities.

Beliefs and values

- Commitment to academic freedom (ability of academic staff to pursue interests, subject to the law and ethical constraints).
- The need to innovate as institutions, including new subject areas and new structures (the flexible organisation).
- Ambition (the desire to be “the best”; constant improvement).
- The need to encourage individual initiative (a supportive environment).
- A willingness to change and to appreciate external circumstances, but not necessarily be driven by them (the reactive organisation).
- The pursuit of excellence in research and in the support of research.
- The importance of competition, within the institution and with other institutions.
- A shared commitment within the institution (the corporate organisation).
- The need for risk-taking, informed and managed (the enterprising organisation).
- The importance of performance assessment (over time and comparative) as an instrument for institutional and individual development.
- The importance of incentives and rewards (financial and non-financial) for academic units and for individuals (the rewarding organisation).
- Celebration of success (the appreciative organisation).
- Stability of mission and purpose; consistency of objectives.
- Belief in the value of strong leadership at all levels within the organisation; and conversely; recognition of the problems associated with poor or weak leadership.
- Institutional self-confidence; a desire to shape its own future, free from dependence on Government and other bodies, commonly based on a degree of financial independence.

- Trust and respect for management, allowing managers to manage and researchers to research in an atmosphere of mutual support, consultation and constructive interaction rather than suspicion and interference.
- Minimal bureaucratic constraints, to encourage responsibility, speed of reaction and reduced overheads on staff.
- An environment of openness and accountability.
- Recognition that research underpins a breadth of activity.

Practice

- Support structures to manage overall strategies and to provide practical assistance.
- Emphasis on research in resource allocation (staffing and non-staff resources).
- Regular use of performance indicators and targets.
- Use of devolved decision making and responsibilities to provide for speed and response and informed resource allocation, but subject to accountability.
- Large organisational units, to spread management overheads and to encourage inter-disciplinary collaboration.
- Pro-active human resource management and staff development.
- Selectivity in resource allocation.
- Financial prudence; awareness of the full costs of research (including opportunity costs).
- Income based funding arrangements (to encourage self-reliance among academic units and to provide incentives), but also the retention of central university-level investment funds.
- Minimal committee structures; short decision-making chains.
- Scale of organisation; a commitment to growth and expansion (which brings with it resource, status, influence and opportunities).
- Research that directly influences teaching (and vice versa), and that contributes to wider social and community interaction.
- A strong international perspective (as well as, not instead of, a firm local and regional base), including international students, staff appointments and partnerships.
- Co-existence of pure and applied research.
- Active support for the wide dissemination of research and for the application of the results of research to the benefit of society.

The author:

Professor John Taylor
 Centre for Higher Education Management and Policy at Southampton (CHEMPaS)
 University of Southampton
 Highfield, Southampton S017 1BJ
 United Kingdom
 E-mail: jtaylor@soton.ac.uk

References

- Bland, C.J. and M.T. Ruffin (1992), "Characteristics of a Productive Research Environment: Literature Review", *Academic Medicine*, Vol. 67, pp. 385-397.
- Boyer, E.L. (1990), *Scholarship Reconsidered: Priorities of the Professoriate*, Carnegie Foundation, Princeton, New Jersey.
- Bushaway, R.W. (2003), *Managing Research*, Open University Press, Buckingham.
- Carnegie Foundation (2001), *The Carnegie Classification of Institutions of Higher Education*, Carnegie Foundation, California.
- Clark, B.R. (1998), *Creating Entrepreneurial Universities*, Pergamon, Oxford.
- Connell, H. (ed.) (2005), *University Research Management: Meeting the Institutional Challenge*, OECD, Paris.
- Di Sarli, N. (2002), *Research Management in European Universities* ESMU, Brussels.
- Knight, P.T. and P.R. Trowler (2001), *Departmental Leadership in Higher Education*, SRHE and Open University Press, Buckingham.
- League of European Research Universities (2004), Web site www.leru.org.
- Moses, I. (1985), "The Role of the Head of Department in the Pursuit of Excellence", *Higher Education*, Vol. 14, pp. 337-354.
- Ramsden, P. (1998), *Learning to Lead in Higher Education*, Routledge, London.
- Shattock, M. (2003), *Managing Successful Universities*, SRHE and Open University Press, Buckingham.
- Tierney, W.G. (ed.) (2004), *Competing Conceptions of Academic Governance*, John Hopkins University Press, Baltimore.
- Warner, D. and D. Palfreyman (eds.) (1996), *Higher Education Management*, SRHE and Open University Press, Buckingham.

Incorporation and University Governance: A Comparative Perspective from China and Japan

by

Futao Huang
Hiroshima University, Japan

This article is mainly concerned with the impact of incorporation on changes in public sector higher education in both China and Japan since the 1990s. The article deals with the context and the major policies and processes concerning incorporation of the public sector in the two countries. It then examines influences exerted by incorporation on patterns of governance in the public sectors of China and Japan by focusing on changes in the relationship between government and individual corporations and institutional leaderships and governance structure. Based on a discussion of similarities and differences in incorporation of the public sectors in the two Asian countries and other major OECD countries, and also between China and Japan, the article concludes by identifying a comparative perspective of two models of incorporation.

Introduction

Over the past decades, public sector reforms have been notable for the magnitude, breadth and significance of the changes in many countries (Nolan 2001; OECD 2003). China and Japan provide no exception. In 1995 and 2004, all the national universities both in China and in Japan were changed into corporate bodies. Incorporation of the national universities in the two countries has led to dramatic changes in missions, budgetary systems, patterns of governance of the national universities and especially in their relationships with the central governments. Currently, much research deals with the changing policies and characteristics of the national universities in the two countries at a system level, but very few studies have been made of the changing internal governance patterns in either China or Japan in a comparative perspective. This article is mainly concerned with the impact of incorporation on changes of higher education governance in China and Japan.

There are several reasons for choosing China and Japan as case studies. First, national universities in both countries are playing a major role in providing graduate education and conducting research; second, research in the two countries can identify not only some characteristics of national university reforms, especially incorporation of national universities in developing and developed countries, but also indicate trends of reforms in national institutions in East Asian countries, in which national universities constitute an important part of the higher education system.

This article first discusses the context and major policies relating to incorporation of national universities in China and Japan. It then examines changes in the relationship between national universities and governments and in institutional governance in the two countries with an emphasis on some of the similarities and differences that exist. It concludes by discussing the variations and differing types of incorporation for the national universities.

Major policies and the process of incorporation

China

As of 2004, there were 1 683 regular institutions, 528 adult institutions and 214 private institutions in 2004 (Ministry of Education of the People's Republic of China, 2005). Except for private institutions, the regular institutions and adult institutions are vertically administered and financed by one of the three types

of administrative authorities: 1) the Ministry of Education (MOE); 2) Central level ministries and agencies; 3) provinces and province-level municipalities.

The modern Chinese higher education system was established in the early 1950s, modelled on that of the Soviet Union. Prior to the late 1980s, higher education institutions were teaching-oriented, focusing on manpower supply under a rigid, centrally planned economy. Most research was conducted in research institutes and academies of science or social science outside the universities. As all higher education institutions were managed as government administrative sectors, they were almost totally financed and controlled either by the central government or by local authorities. At a system level, higher education institutions were vertically established and administered by both the MOE and other central ministries, while at the same time also horizontally subject to central or local educational authorities respectively. Higher education institutions received financial allocations from the state based simply on head-count enrolment and other identified necessary expenditure. At an institutional level, as shown in Table 1, except for a short period, the strong leadership by the Communist Party has always been maintained, though the patterns of internal governance in Chinese universities have undergone several changes since the 1950s.

Table 1. Changes of patterns of internal governance

Patterns of institutional leadership	
1950-56	Responsibility taken by a President
1956-61	Administered by a university committee under the leadership of the Communist Party Committee
1961-66	Administered by a university committee headed by a President under the leadership of the Communist Party Committee
1966-76	Centralised leadership by the Communist Party Committee
1977-85	Division of labour, with individual responsibility taken by a President under the leadership of the Communist Party Committee
1985-89	Responsibility taken by a President in some universities
1989-	Responsibility taken by a President under the leadership of the Communist Party Committee

Source: Mi and Zhou, 2004.

Therefore, the university Communist Party Committee directed by the Party Secretary and consisting of the Communist Party members, works in parallel with the administrative system headed by a President. Differing from Japan, each Party secretary and President (including all Vice-Presidents) are appointed by the government. The dual governing bodies formed the top executive authority at an institutional level. In addition, at college or departmental level, Party branches or groups are also established to ensure the implementation of Party policies. The governance and operation of institutions were fundamentally based on the Communist Party's policies and principles.

However, since 1992, as China further initiated deeper economic reforms and facilitated the pace of transition to a market economy with Chinese characteristics, the traditional model of higher education governance has been severely criticised for two major aspects: first, institutions that were set up by different ministries and agencies at central and provincial levels were neither responsive nor adequate to the training needs of a knowledge-based society due to the fact that the institutions were established and administered by different educational or administrative ministries at central and provincial levels respectively; second, the limited budget from government was allocated to many small scale overlapping institutions, so that the higher education institutions were considered to operate inefficiently.

In fact, early in the mid-1980s, some policies concerning decentralisation or deregulation and devolution had already been announced by the central government. Among which, the promulgation of the *Decision of the Chinese Communist Party Central Committee on the Reform of the Educational System* in 1985 indicated the first critical step to changing the relationship between government and individual higher education institutions (*People's Daily*, 1985). In the *Decision*, it is suggested that many powers should be delegated to the institutions. For example, individual institutions could decide on the disposition of the capital and recurrent funding channelled from the government and could tap into other appropriate sources for funding in addition to governmental grants. In 1993, the issue of the *Outline of Education Reform and Development in China* made a further call for a transfer from direct control over institutions by government to guidance and supervision for institutions at a macro-level through legislation, funding, planning, information services, and other necessary administrative means. With regard to the relationship between government and individual institutions, it was strongly suggested that the autonomy of individual higher education institutions should be guaranteed through legislation, that the powers and duties of higher education institutions should be clarified and that higher education institutions should be made to become real corporate bodies. They should be more oriented to society independently and with initiative in their own hands.

Major policies mentioned in the two documents are further identified in two important education acts: the *Education Act* of 1995 and the *Higher Education Act* of 1998. In the *Education Act* of 1995, it is indicated that schools and other education institutions should be conferred with the status of corporate bodies at the time when they are approved or registered (provision 31) (*Jiaoyu fa jiqi peitao guiding*, 2003). The same provision is emphasised again in the *Higher Education Act* of 1998, in which it is indicated that higher education institutions are to be granted the status of a corporate body on the day they are approved (provision 30). Furthermore, it is also stressed that more autonomy should be delegated into individual institutions, in particular with regard to seven autonomous rights concerning educational and research activities. For instance, institutions are

encouraged to conduct contract research and joint projects with enterprises, business, social organisations and other private sectors (provision 35). As for internal governance, it is clearly stated that higher education institutions that are run and operated by the state should implement a governance model of responsibility being taken by a President under the leadership of the Communist Party Committee. The Chinese Communist Party Committees in individual institutions at the basic level exert unified leadership over institutions and support Presidents to exercise power independently. They assume major responsibility for making decisions on important issues such as the direction or mission of administering institutions, establishment of internal organisations and appointment of cadres in charge of internal organisation, and the reform, development and basic administrative system of each individual institution. In contrast, Presidents in individual institutions are responsible for teaching, research and other administrative activities.

Promulgation of the *Education Act* of 1995 and the *Higher Education Act* of 1998 indicates that not only should the relationship between government and higher education institutions be changed significantly, but also more autonomous powers ought to be delegated to individual institutions with regard to academic affairs. In the future, the government is to be principally responsible for adjusting and supervising individual higher education institutions at a macro-level. It is no longer, as it used to be, directly involved with trivial details concerning academic activities and internal governance at an institutional level. In sum, through the two Acts, a new kind of higher education administrative system has been taken into legislative form.

Japan

Differing largely from China, in Japan the national sector only accounts for a very small share of the total higher education system. According to the MEXT (Ministry of Education, Culture, Sports, Science and Technology) statistics, in 2003, the proportion of private students and institutions in both universities and junior colleges amounted to 79.6% and 73.5% of the total respectively (MEXT, 2004). National institutions are mainly concerned with carrying out diverse functions by facilitating the advancement of basic, applied or big scientific research, and in particular by training graduate students.

Arguments about change of the status of national universities started as early as the 19th century. In the early 1970s, incorporation of the public sector was also suggested by the OECD (1971). At a policy level, incorporation of the national universities in Japan was officially discussed in 1987 in the *Third Report* issued by the *Ad Hoc Council on Education Reform* (*Rinkyoshin* in Japanese), which was established by Prime Minister Nakasone Yasuhiro in 1984. Since then, incorporation of the Japanese national universities has experienced three major stages.

First stage, from October 1996 to July 1997 – In October 1996, the possibility of changing the status of the national universities was first discussed in the first administrative reform meeting. In January 1997, a debate took place about the privatisation of national universities, but in May the possibility of changing national universities into independent administrative corporations was also addressed.

Second stage, from August 1997 to May 2001 – In August 1997, the *Draft on a System of Independent Administrative Corporations* was put forward. In April 1999, it was proposed by a Cabinet meeting that transformation of the national universities into independent administrative institutions would be considered as one of the means to reform national universities with respect to university autonomy and that a decision should be made by 2003.

Third stage, from June 2001 to April 2004 – With the issue of *Policies for the Structural Reform of Universities* by the Minister of MEXT in June 2001, the decision to make the national universities individual corporate bodies was officially taken. One year later, it was agreed in a Cabinet meeting that incorporation of the national universities would be implemented from fiscal year 2004. In July 2003, the *National University Corporation Law* and another five related laws were approved, and, in April 2004, all the national universities were changed into national university corporations (MEXT, 2005).

Policies and regulations describing the missions and character of the national university corporations in Japan can be found in many reports delivered by MEXT and the University Council, as well as in many government documents and in individual legislation issued since the late 1990s. Among these, those of special interest are: the *Toyama Plan (Policies for the Structural Reform on National Universities)*, named after the then Minister of Education, Toyama, and issued in June 2001; and the report *A New Image of National University Corporations*, which was presented by a Study Team Concerning the Transformation of National Universities into Independent Administrative Corporations on March 26, 2002, as well as the legislation of the *National University Corporation Law of 2003* (Press Releases, 2003). In the *Toyama Plan*, a quick implementation of the national university corporations and implementation of differential of financial allocation according to the results of third-party evaluation is strongly advocated. The second report particularly elaborates models of centralisation that strengthen the leadership of a President; and the Law of 2003, provides much detail about the national university corporations, such as their missions, characteristics, functions, financial systems and patterns of governance.

According to the outline of the *National University Corporation Law*, the system of national university corporations is characterised by the following major points (*National University Corporation Law*, 2003):

1. Individual corporate responsibility – a break away from support of the national universities in the style of an “armed convoy”.
2. Deregulation of budget and personnel affairs leading to a competitive environment by ensuring university autonomy.
3. Production of attractive education and research by the national universities.
4. Introduction of management techniques based on private-sector concepts – top down management by a board of directors centred on the president.
5. External participation in management of universities – participation of people from outside the university as executives and to approve management plans.
6. Improved process for selecting the president – establishment of a Presidential Selection Committee in which external non-university experts participate to identify well-qualified candidates for president from both inside or outside the university.
7. Selection of a non civil servant type as the status of personnel – introduction of a diverse and flexible personnel system on the basis of capability and performance.
8. Evaluation and disclosure of information – allocation of resources based results of third-party evaluation.

Ensuring transparency to encourage increased public participation

It is worth noting that incorporation of the Japanese national universities has been affected by more diverse and complex factors and in particular impacted by a number of serious political conflicts. The pressure to make reforms in Japan prior to 2000 had been coming from three sides: the Ministry of Education, industry, and the universities themselves, stimulated by the Ministry of Education and individual universities (Doyon, 2001). However, as Yonezawa has noted, after the Koizumi Cabinet was created in April 2001, the direction of educational reform became much more oriented to economic and industrial politics (Yonezawa, 2003). In a major sense, incorporation of the national universities was realised only after a long process of compromise between different political parties and groups, including the Prime Minister’s Office, other ministries at a central level, MEXT, industry, and universities themselves.

Impact of incorporation on higher education governance

China

The incorporation of higher education institutions, together with other particular measures taken by government – such as mergers – has led to tremendous changes in Chinese higher education governance. With regard to the relationship between government and individual institutions, since the early 1990s there has been a striking drop in the number of institutions that are administered by central government, and especially by other central ministries, whereas the number of institutions administered by local authorities has risen steadily. For example, the number of institutions administered by other central ministries greatly decreased from 318 in 1990 to 50 in 2000; on the other hand, the number of institutions administered by MOE and by local authorities increased from 36 and 721 in 1990 to 71 and 920 in 2000 respectively (*Zhongguo jiaoyu nianjian bianjibu*, 1991; *China Education Daily*, 2000; *Zhongguo jiaoyu nianjian bianjibu*, 2001). As a result, MOE or education departments in local authorities operated more of the administrative systems and local authorities and individual institutions now play the leading role in determining student enrolment, curriculum development, decision making about organisation in their own universities and in generating resources.

Another big impact on the relationship between government and institutions is the gradual establishment of a totally new higher education finance system. The incorporation of higher education institutions has encouraged them to make more efforts to diversify funding resources. As emphasised in the *Outline* of 1993 and the *Higher Education Act* of 1995, in addition to the major financial source of the budget allocation from the government, the amount of resources generated through tuition charges and fees from students, revenues from university enterprises, commissioned research and consulting, as well as contract technology development or patent transfer, donations gifts and endowments has continuously increased and played a greater role in Chinese higher education financing. Actually, since the early 1990s, with a steady reduction of the proportion of the budgeted allocation from the state, the percentage of the institution-generated revenues has risen notably quickly, with the proportion of revenue from student tuition and fees rising surprisingly rapidly. For example, from 1990 to 2001, the percentage of funding from the state dropped from 99% to 55% of the total revenue for higher education, while the percentage of institution-generated revenue provided almost half of the total. The percentage of tuition and fees from students grew from 1% of the total in 1990 to 24.7% in 2001 (Han, 2003; MOE 2003).

On the other hand, at an institutional level, according to an investigation conducted on the situation of university autonomy in 20 key universities, many university leaders stated that their universities had more autonomous rights than previously (Li, 2000):

- Universities had the right to develop specialised courses according to the needs of society and their own considerations, as authorised by MOE.
- They had more freedom to set up their own organisational structures than previously.
- They possess autonomy in the appointment and dismissal of middle-level staff.
- Within the limits of set quota, they could establish standards for the level of technical and professional posts and award the equivalent of masters' degrees or doctorates.
- They could apply for support for scientific research from government and undertake research projects for other organisations on their own initiative.
- With respect to capital expenditure and operational management, their freedom of action was clearly improved.

However, while the degree of autonomy in Chinese higher education institutions has increased much more than previously, another national survey of approximately 200 professors and associate professors reveals that more than half of them admitted that their universities had more freedom only in the recruitment of academic staff; and less than half of them thought their universities did not possess enough autonomous rights in student recruitment, development of specifications, establishment of organisational structures, usage of funding, deciding academic staff's titles, distribution of income, and appointment and dismissal of administrative staff (Beijing Normal University, 2000).

Because the *Higher Education Act* of 1998 reaffirms the necessity and importance of implementing a system of responsibility of the president under the leadership of the Communist Party Committee, which was started in 1989, it is true that the Communist Party Committee, at an institutional level, maintains its dominance over institutions. For example, it is responsible for regulating the mission and operation of institutions and for appointing and dismissing persons in charge of administrative and academic management – including Vice Presidents, Deans or Directors in individual schools, departments or research institutes – even in all those higher education institutions that have been conferred corporate status. However, it should be stressed first that the role played by the Communist Party Committee in internal leadership has been transformed from direct participation in particular internal affairs to one more involved in supervising implementation of the Party's principles and policies; and

second, that by 2001, according to a national survey conducted in 131 universities, the percentage of the Communist Party's organisations and Party members in governing bodies and administrative staff at an institutional level had shown a continuing decline. Some of the Party organisations have come to be more responsible for administrative affairs or providing educational and research services (Yan and Kang, 2004). In a major sense, it is now likely that executive powers, maintained by the administrative governing body headed by the President, will become increasingly influential and stronger. Moreover, the biggest change in the structural organisation of internal governance is that more autonomous rights have been delegated to the level of schools or colleges following the change in internal structural organisation. With an increase in student numbers and especially with greater emphasis on entrepreneurial activities, many universities have come to form a three-tiered structure: university, college or school and department, instead of the previous two-tiered organisation: university and department. The newly established colleges or schools within universities have become the basic educational and research units, responsible for student recruitment, development of curriculum, etc.

Japan

Similarly to China, the Japanese national universities, as institutions affiliated to the government, were also operated under control of the government and were almost totally financed by the State. But since April 2004, incorporation of the national universities has significantly changed both the relationship between government and individual institutions and patterns of governance at an institutional level.

As incorporation of the national universities was implemented only on 1 April 2004, it is not yet as clear as it is in China how much or to what extent the governance model of the national university corporations has changed. With respect to the relationship between government and individual institutions, the biggest change is that staff in all national universities have become non-public servants and are no longer directly subject to government. According to a summary made by the Center for National University Finance and Management (2004), the essential difference between the national university corporations and the public and private sectors lies in the fact that the State still assumes direct responsibility for accreditation and for closing an institution and it is also responsible for providing the necessary revenue for each individual national university corporation, though the amount of the budgeted allocation from the State is to be based on a third-party evaluation. The evaluation will be implemented basically according to six-year medium-term goals and plans. The drafts of both goals and plans are to be prepared by each individual national university corporations in advance and submitted to MEXT. Subsequently, the approved goals and plans, which may be revised or

modified by MEXT if necessary, will be returned to each corporation. Each corporation will be evaluated by the Evaluation Committee of the National University Corporations every six years. Based on their evaluation, decisions on the plans and resources for the forthcoming six-year period will be determined. Government funding will be appropriated to each national university corporation in block grants and therefore more flexibility will be achieved. Hence, to a large extent, government is to take more account of *ex post facto* evaluation and to place less emphasis on advance regulation than previously.

Regarding changes in the pattern of internal governance in the national university corporations, more powers have been placed on governing bodies at institutional level with a reduction in the autonomous rights residing in faculty meetings. Instead of the sole deliberative council in individual national universities prior to April 2004, the governing bodies at an institutional level now comprise a Board of Directors, an Education and Research Council and an Administrative Council. Further, as emphasised by the *Law* of 2004, the President is the head of the corporation and chairs the Board of Directors and the Administrative Council, as well as being a member of the Education and Research Council. Accordingly, the President of each corporation becomes the chief executive and carries the strongest powers. In addition, while the Education and Research Board totally comprises internal representatives and is mainly responsible for important educational and research activities, both the Board of Directors and the Administrative Council should be open to participation by non-university external experts who are expected to be involved in internal governance and management. Therefore, each university corporation should be more responsive to the needs of society and cooperation with the industrial field can be promoted. Consequently, the traditional pattern of governance in the Japanese national universities has fundamentally changed. With reduced autonomous rights or powers at faculty level, the power of the bureaucracy within each university has been far more expanded than that of academic staff: in particular, leadership from the top by the President has become greatly emphasised.

Discussion and conclusion

Discussion

Legally, there are no public sector or national universities existing in either China or Japan. As in a large number of OECD countries, their public sector higher education no longer contains institutions affiliated to government. But the type or nature of the incorporation of the public sector in the Chinese and Japanese contexts is not necessarily identical to that of many other OECD countries. Compared with most OECD countries, the governments of China and Japan still retain much greater responsibility for these corporations. For example, they still

maintain powerful leadership or exercise strong control or supervision over individual corporations in terms of approving or closing a corporate entity. Moreover, the current amount of funding allocated by government still constitutes a major part of the total revenue of individual corporations, though there has been a steady decline in the sum of appropriations from government in China over the last decade. As discussed earlier, in China, even though all of the public sector has been changed into corporate bodies, the pattern of internal governance is still maintained as it was in 1989. The Communist Party Secretary still exercises the most powerful leadership within the corporation. In essence, the same is true of Japan, too: transformation from direct control of the national universities by MEXT into multi-faceted evaluations does not imply restriction of the powers of the government, but expansion of its authority in a different form (Hata and Huang, 2004).

The retention of strong influence by government in China and Japan over the corporations can be attributed to the following reasons: first, that the modern public sector in China and the national universities in Japan were directly established and financed by government; second, that the public sector has played an overwhelmingly important role in manpower supply or research; third, that incorporation of the public sector took place as part of national political or administrative reforms.

However, much evidence shows that university corporations in both countries have come to be, and will inevitably become, more independent of government, more market oriented and responsive to society and industry, more entrepreneurial and more executive and bureaucratic in internal governance, but also more free to use institution generated revenue.

On the other hand, incorporation of the public sector also differs between China and Japan. In China, the incorporation is more closely accompanied by marketisation and privatisation, directly and rigidly regulated by the central government. Compared with Japan, prior to the early 1990s, no market mechanisms had been introduced into China, nor were there any private institutions. Pressures for changing the status of the public sector partly originated from a need to relieve an increasingly heavy financial burden on government for a steadily growing number of institutions, and partly came from a need to enhance the effectiveness and efficiency of the public sector. As a result, the incorporation has affected the pattern of governance of the public sector in two aspects especially: the changing role of government from direct control to supervision at a macro-level; and delegation of more autonomous powers to individual institutions. Accordingly, individual corporations are encouraged to be more entrepreneurial in undertaking activities, including generating revenue through diversifying sources, competing for research grants, and operating university companies. Financially, the incorporation of the Chinese public sector is a closer approach to privatisation or has become a step towards privatisation.

With a steady rise in the amount of institution-generated revenue, supervision by the central government tends to be more involved in issuing regulatory policies and the direct appointment of institutional leaders. Indeed, in the most recent years, evaluation has been regarded as a very important means to adjust the relationship between government and individual institutions, but what is being conducted now largely focuses on educational and research activities. The budget from government has not been allocated to institutions based on evaluation as is to be done in Japan. At an institutional level, each institution is more driven by market mechanisms and more entrepreneurial with a transfer of authority from an institutional level to the level of college or school. In short, academic powers and incentives to generate resources through diversifying sources have been substantially delegated and given to individual Chinese institutions, even though there is not so much change in institutional leadership.

Great changes have also taken place in the relationship between government and individual national university corporations in Japan. By implementing evaluation based on six-year goals and plans by each corporation, which need to be approved by MOE, the central government can still influence institutional governance in individual national university corporations. Furthermore, at an institutional level, as outlined by the OECD (2003) according to the new governance pattern, the executive authority of institutional leaders has been greatly reinforced, with a corresponding loss of authority and decision-making powers on the part of faculty meetings at faculty level. There has also been a parallel increase in participation on governing or supervisory bodies by representatives and individuals from outside each university corporation.

Conclusion

Following incorporation, the public sectors in China and Japan share many similarities with the public sectors in other OECD member countries and in the future the similarities will be extended. However, it should be acknowledged that many differences also exist. The differences exist not only between China and Japan and other OECD countries, but also between China and Japan themselves – due to their differing academic traditions, social-economic backgrounds and current higher education systems – in the definition, nature and form of incorporation.

Incorporation in China can be identified as a supervision oriented model. This model is regulated and supervised by the central government, mainly through the implementation of policies, funding, an establishment of institutional political organisations, and the appointment of political leaders at institutional level. It is characterised by the delegation of limited academic autonomous rights and more managerial powers to institutional or college level, with the purpose of reducing the financial burden on government and improving institutional efficacy and effectiveness, though with limited

autonomy conferred on institutional leadership or governance. While maintaining its strong supervision on individual corporations, well-defined powers have been delegated by government to an institutional level.

Incorporation in Japan is a contract-based model. Like many other OECD countries, such as the Netherlands, incorporation in Japan proceeded as a means of avoiding privatisation and as an outcome of negotiation between various political elements. The control or supervision of each corporation by government still remains strong, but basically government regulates or influences the operation of each corporation through funding based on evaluation. The evaluation is conducted according to medium-term goals and plans that are submitted by each corporation and approved by the Ministry. At institutional level, efforts have been made to reinforce the executive power of institutional leadership and to introduce top-management based on private-sector concepts, as well as to place more emphasis on participation by experts from outside the corporation.

The author:

Futao Huang

Associate Professor and Ph. D.

Research Institute for Higher Education

Hiroshima University

Kagamiyama 1-2-3

Higashi Hiroshima

Japan 739-8513

E-mail: futao@hiroshima-u.ac.jp

References

- Beijing Normal University (2000), “Zhongguo jiaoyu fazhan baogao- jiaoyu tizhi de biange yu chuangxin” (Report on China’s Education Development-Reform and Innovation of Educational System), Beijing Normal University Publishing House, p. 124.
- China Education Daily (2000), *China Education Daily*, 7 November.
- Doyon, P. (2001), “A Review of Higher Education Reform in Modern Japan”, *Higher Education*, Vol. 41, No. 4, pp. 443-470.
- Han, M. (2003), *20 Shiji Zhongguo gaodengjiaoyu touru tizhi de yanbian* (Changes in Chin’s Higher Education Financing in the 20th Century), Higher Education Publishing House, Beijing.
- Hata, T. and F. Huang (2004), “Governance Reforms in Japanese Higher Education System”, presentation made at the 8-Nation Conference on Building up the 21st Higher Education System in Japan and Quality Assurance, Hiroshima, Japan, 2 March.
- Jiaoyufa jiqi peitao guiding (2003), “Jiaoyufa jiqi peitao guiding” (Education Acts and Other Related Regulations), Zhongguo Fazhi Publishing House.

- Li, X. (2000), "University Autonomy in China: History, Present Situation and Perspective", *Current Issues in Chinese Higher Education*, OECD, Paris, pp. 37-44.
- MEXT (2003), *Legislation of "the National University Corporation Law"*, Press Release, 16 July 2003, www.mext.go.jp/english/news/2003/07/03120301.htm, accessed on 7 March 2005.
- MEXT (2004), *Japan Statistical Abstract*, National Printing Bureau, Japan, pp. 79-80.
- MEXT (2005), *Progress for Incorporation of National Universities*, online information available at www.mext.go.jp/english/news, accessed on 28 February 2005.
- Mi, H. and Zh. Zhou (2004), "Jianguo yilai woguo gaoxiao neibu lingdao tizhi yanbian shuping" (A Review of Changes in the Internal Governance System in Chinese Higher Education Institutions since the Funding of P.R. of China), *Xiandai jiaoyu kexue*, 3, pp. 55-57 (with author's modifications).
- Ministry of Education of the People's Republic of China (2005), Ministry of Education of the People's Republic of China Web site, <http://moe.edu.cn>, accessed 27 February 2005.
- MOE (2003), "Zhongguo jiaoyu jingfei tongji nianjian 2002" (Data on China's Education Finance 2002), China Data Publishing House, Beijing.
- National University Finance and Management (2004), "Kokuritsu daigaku houjin keiei handobukku (1)" (Handbook of National University Corporations' Management), Kabushiki laisya kousaido, p. 1-1.
- National University Corporation Law (2003), *National University Corporation Law*, online information available at www.mext.go.jp/english/news/2003/07/03120301/001.htm, accessed on 6 March 2005.
- Nolan, B.C. (ed.) (2001), *Public Sector Reform-An International Perspective*, Palgrave, Great Britain.
- OECD (1971), *Reviews of National Policies for Education: Japan*, OECD, Paris.
- OECD (2003), *Education Policy Analysis*, OECD, Paris.
- People's Daily* (1985), *People's Daily*, 29 May.
- Yan, F. and L. Kang (2004), "Zhongguo daxue guanli jiegou bianhua shizheng fengxi" (An Empirical Analysis about Management Structure of Chinese Universities), *Higher Education*, 11, pp. 72-77 (in Chinese).
- Yonezawa, A. (2003), "The Impact of Globalisation on Higher Education Governance in Japan", *Higher Education Research and Development*, Vol. 22, No. 2, pp. 145-152.
- Zhongguo jiaoyu nianjian bianjibu (1990), *Zhongguo jiaoyu nianjian 1990* (China's Education Yearbook 1990), People's Education Press, 1991, p. 20.
- Zhongguo jiaoyu nianjian bianjibu (2000), *Zhongguo jiaoyu Nianjian 2000* (China's Education Yearbook 2000), People's Education Press, 2001, p. 22.

The Professional Doctorate: From Anglo-Saxon to European Challenges

by

Jeroen Huisman and Rajani Naidoo
University of Bath
United Kingdom

This paper addresses the debate on the third cycle of European higher education. Currently, much attention is paid to improving the structure and quality of doctorate education in the European context of the Bologna process and the Lisbon objectives. However, alternatives to the traditional doctorate are hardly addressed in the policy documents of governments and other agencies. The promise of one of these alternatives – the professional doctorate – is discussed. Without suggesting this alternative to be the ultimate solution to problems in the third cycle, the paper argues that a dual policy strategy seems appropriate: improving the traditional doctorate and allowing alternatives to flourish.

Introduction

At the 2003 Berlin Ministerial Meeting of the European Ministers responsible for Higher Education attention was called to the so-called third cycle (doctoral education) in higher education. The 1998 Sorbonne and 1999 Bologna Declarations paid attention primarily to the first two cycles of higher education. The need for attention at the third level was amongst others fed by the increasing need to improve transparency and to assure quality. Attention to doctoral education would also help to promote closer links between the European Higher Education Area (EHEA) and the European Research Area (ERA). Whereas the most recent Bologna process document (Bergen Communiqué, 2005) did pay attention to the third cycle, the document is rather limited in that it only scratches the surface. What is most striking, is the restricted focus at the supranational level on changing the existing “traditional” PhD and the negligence of an in-depth discussion of alternative doctoral programmes. This contribution delves into the question whether the development of professional doctorates – a possible alternative to the traditional PhD – may contribute to solving current problems traditionally associated with research training and research careers.

The road to Bergen

The Bergen Communiqué (2005, p. 4) is rather short on doctoral training: “Considering the need for structured doctoral programmes and the need for transparent supervision and assessment, we note that the normal workload of the third cycle in most countries would correspond to 3-4 years full time. We urge universities to ensure that their doctoral programmes promote interdisciplinary training and the development of transferable skills, thus meeting the needs of the wider employment market. We need to achieve an overall increase in the numbers of doctoral candidates taking up research careers within the EHEA.” The document urges the Bologna follow-up group to prepare a report on the further development of the basic principles for doctoral programmes, to be presented at the 2007 London meeting.

The outcome and recommendations may look rather disappointing in light of the urgent need to bring about change in researchers’ careers, doctoral training and other important issues. The problem of brain-drain is not mentioned, nor is the perceived unattractiveness of an academic career, the salaries prospects compared to the private sector, the inflexibility and

hierarchical nature of the career and gender bias (see *e.g.* Huisman *et al.*, 2002). And indeed, when looking back at previous analyses and recommendations, the most recent communiqué reiterates what has been said before. Already in the 1980s a variety of reports addressed structural issues regarding postgraduate education (OECD, 1987). And in the past decade, similar analyses of the too specialised nature of the PhD and the lack of interdisciplinary training can be found (*e.g.* Frijdal and Bartelse, 1996; OECD, 1991, 1995).

On the other hand, it should – first – be understood that the Bergen Communiqué is a short (and political!) document, which has to deal carefully with the vast amount of different national perspectives on how to deal with an issue like doctoral training and research. Not surprisingly, a number of elements of a document of such a nature need to be formulated in vague, abstract terms: being more concrete or provocative would harm the legitimacy of the document. Second, the communiqué is “only” a snapshot in the Bologna process. At various moments in this process further and more specific attention has been paid to research training and careers. The 2003 Communication (European Commission, 2003) is probably the most comprehensive on these issues. It deals with the recruitment methods of researchers, employment and working conditions and research training. Here attention is asked for wider employment-related skills, the structuring of training, the quality of supervision and the funding of doctoral programmes and candidates. The 2002 STRATA-ETAN expert group (European Commission, 2002) also addresses research training and careers and sketches the challenges and possible future scenarios. This document may be seen as the most outspoken regarding the need to change the “traditional” PhD: preparing postgraduate students “... could imply more involvement of the research apprentice in collaborative projects with ‘non-academic’ partners and also more direct involvement of ‘non-academic’ partners in the training of researchers” (but see also the European Science Foundation, 2002). In this respect, the recent conclusions and recommendations of the Salzburg Bologna Seminar on doctoral programmes (European University Association, 2005a) do not add that much to the previously mentioned analyses and recommendations, nor does the 2005 Glasgow Declaration (European University Association, 2005b). The EUA doctoral programmes project on doctoral programmes – including 49 universities from 30 countries – may yield some practical input to the discussion, particularly the network on structure and organisation (www.eua.be/eua/en/Doctoral_Programmes.jspx, 22 July 2005).

It is striking that the need for change is considered ubiquitous and urgent in the documents addressed above, but that the actual proposals – for the time being leaving aside the rhetorical nature of many of the assertions – are almost all within the limits of adjustments to the “traditional” PhD. An institutional argument may explain this situation. Universities as institutions

(in the sociological meaning) have changed considerably in the post-war period, if it was not only for the fact that a considerable number of universities have been established after 1945. Whether these changes relate to the nature of the university as an organisation (Clark, 1998, 2004), to the changing academic profession (Halsey, 1992) or to its functions (Barnett, 1990) is not so important. What is important is that many elements of the institutional fabric have changed, and that seemingly the doctorate has been most resistant to change. The obvious explanation is that the doctorate (in terms of structure, organisation, culture, and ceremonies) can be seen as one of the few remnants of the core of the classical university and therefore difficult to change. Or as Noble (1994, p. 1, quoted by Bartelse, 1999, p. 5) stated in similar wordings: “any changes to the process (of acquiring a degree) must not be radical if they are to be adopted and accepted within traditional universities”. This may explain why the focus of many in and around higher education is on adaptation of the PhD instead of – more rigorously – proposing alternative doctorates, such as the professional doctorate (see Allen *et al.*, 2002 on professional doctorates in Canada). This does not imply that one should not try to adapt the “traditional” PhD. There are a myriad of arguments to reconsider the features of the PhD process. The point is that one should also look beyond the “traditional” PhD.

The professional doctorate: the Anglo-Saxon roots

There is more or less a universal understanding of the “traditional” PhD (*Philosophiae Doctor*), for the simple reason that this degree emerged from the European mediaeval universities and diffused across the globe. Of course, the PhD was often adjusted to the particular culture and practice in the respective higher education institutions and systems (Noble, 1994; Verger, 1978) and von Humboldt’s legacy certainly changed the nature of the PhD in the context of the “modern” research university. It is generally considered as the highest degree awarded in higher education, the higher doctorates such as the DSc being the exception. Despite its different meanings through time and by place, the general idea is that the doctoral candidate should make an original (and significant) contribution to academic knowledge (see *e.g.* Green and Powell, 2005).

Doctoral degrees alternative to the PhD flourished in particular in the Anglo-Saxon world. Most examples of Doctorates in Business Administration (DBA), Educational Doctorates (EdD), Doctorates in Engineering (EngD) and so on can be found in the United Kingdom, Australia, United States and Canada. The exact date of birth cannot be retrieved, but the origins in the United Kingdom can be found in the latter half of the 1980s and beginning of the 1990s. Until that time, most of the PhDs could be “absorbed” by the increasing higher education sector, but gradually PhD holders were also seeking employment outside the academic world. There was a growing

dissatisfaction with the match between the knowledge and skills of PhD holders and the labour market. Criticism centred on the excessive specialisation of the PhD, the lack of opportunities for inter-disciplinary work and a lack of ability to transfer and apply knowledge and skills outside the academic context. In addition, low completion rates, and the quality of supervision have been raised as specific problems (Bourner *et al.*, 2001; Hoddell *et al.*, 2002; Park, 2005). Such concerns have paved the way for thinking about differently oriented doctoral products and processes, including the professional doctorate. This was a niche soon filled by the universities. In 2000, the universities offered more than 150 professional doctorates (UK Council for Graduate Education, 2002). At that time, about 80% of the universities offered professional doctorates. It is noteworthy to stress that the different professional doctorates (DBA, EdD, EngD, etc.) – despite the general concerns mentioned above – have had rather different origins and intentions. The EdD was, in the beginning of the 1990s, a response of individual universities to a growing market, the EngD was however initiated by the Engineering and Physical Sciences Research Council. Professional doctorates also differ considerably in terms of pedagogy, assessment, and curriculum approaches (see Scott *et al.*, 2004, Chapter 3).

In Australia, developments were rather similar. There were complaints by industry on the lack of relevant skills of PhD holders. Particular criticism related to the lack of work practices, a lack of abilities to carry out project work and to synthesise, and the over-specialisation of the graduates (Clark, 1996). A noteworthy difference with the UK experience is that Australian government and various other stakeholders (Higher Education Council and National Board of Employment, Education and Training) implicitly or explicitly invited the higher education institutions to set up alternative PhDs, including professional doctorates (Jongeling, 1996). From 1990 to 1996, the number of professional doctorate programmes increased from one to 48 and in early 2001, 131 programmes were offered (Neumann, 2005).

Although not so much explicitly addressed by the literature, the development of professional doctorates in Australia and the United Kingdom cannot be disconnected from the universities' income generation policies. Beyond the Anglo-Saxon world, the professional doctorate has not yet taken root, although there are some initiatives in *e.g.* the Netherlands, currently in the context of *hogescholen's* efforts to "upgrade" their staff and in Sweden (Wormell, 2004). The relatively recent emergence of professional doctorates also explains the sparse research on the issue (particularly grey literature), much of which is written by enthusiastic practitioners, *i.e.* those involved in the development and offer of professional doctorates. Recently, more attention has been paid to this phenomenon in the "official" literature notably through special issues of the *Journal of Higher Education Policy and Management*

(2005) and *Higher Education Research and Development* (2002) and – more generally – through a greater research focus on quality assurance in the PhD process, the development of graduate schools, evaluations of the PhD experience and comparative research on doctoral degrees and qualifications (e.g. Sadlak, 2004).

The professional doctorate: what it is ... (and is not)

There is considerable confusion on what the professional doctorate is. It is quite often reflected in responses like “well, it is not ...” Saying what it is not, possibly brings us closer to an understanding of what it is, but much more can be said in positive terms. We maintain that much of the confusion is unnecessary, provided that one is willing to accept *a priori* that there are no watertight separations between the different types of doctorates, given the traditions differing from country to country and from discipline to discipline.

As an introduction to the diversity of doctorates, the UK Council for Graduate Education’s (2002) and Hoddell, Street *et al.*’s (2002) distinctions are helpful (but see also Bourner *et al.*, 2001; Green and Powell, 2005). We broaden the typical UK types to a more international perspective, and come to the following types (see Bartelse, 1999 for an alternative – historically-based – typology).

- The *traditional PhD*: a student takes up the process of acquiring the PhD, working alone (if not lonely) on the dissertation, supervised by one or two senior researchers. The objective is to deliver an original and significant contribution to the research literature in the field of study. A broad understanding of the field she/he is working in, is often an additional criterion, as well as that the quality should be such that academic publication of the dissertation is likely (UK Council for Graduate Education, 2002, p. 14).
- The *PhD by publication*: rather similar in terms of objectives and standards as the traditional PhD, but the process is different. The candidate presents a volume of academic publications. In the social sciences, the publications are often accompanied by an introduction and reflection.
- The *taught doctorate*: this doctorate involves a considerable amount of teaching and the student is subject to formal assessment. The so-called New Route PhD, piloted by ten UK universities at the beginning of this millennium, can be seen as a subspecies of the traditional PhD with a significant amount of taught material and attention to breadth of subject knowledge.
- The *work-based or practice-based doctorate*: a doctorate earned in the creative and performing arts and in design, but sometimes also in other areas where

one can speak of “practice” (health). Particularly the arts doctorate is different for its focus on the created product or its production.

- The *professional doctorate (PD)*: is a taught doctorate but the field of study is a professional discipline, rather than the academic discipline. Quite often, a variety of didactical tools are used in the educational process. Although research-based, the focus is normally more (or also) on application within the student’s professional practice (reflexive practitioner).

Underlying this fivefold classification is a distinction between the more academically oriented doctorates (traditional PhD, PhD by publication, taught doctorate) and more professionally oriented doctorates (work-based, practice-based and professional doctorate).

The traditional PhD versus the PD: main similarities and differences

There are general differences between the two types of doctorates, but it must be stressed that the differences are often of a gradual nature, and practices differ from discipline to discipline. What the two types share are the following features:

- The ultimate outcome of the process should be an original work.
- This product (mostly a thesis) delivers the proof of expertise.
- The process and product are research-based.
- The oral examination (*viva voce*).

At the same time, there are gradual and large differences, the main ones – derived from the available literature addressed in this paper – are set out in Table 1.

The professional doctorate: a “just in time” solution?

Professional doctorates may very well contribute to solving a number of the noted problems in the field of doctorate education. Many working in a particular knowledge-intensive profession may be intrinsically motivated to increase their professional knowledge and skills beyond the regular “refresher” course by taking up the challenge to contribute significantly to the stock of knowledge in that profession. To this target group the traditional PhD may have less appeal because of the lack of connection between this route and the professionals’ practice and its aura of a “long, winding and solitary road”. The professional doctorate has also been connected to the debate on the knowledge society. It is claimed (Gibbons *et al.*, 1994; Nowotny *et al.*, 2001) that the production of knowledge is changing from Mode 1 to Mode 2, implying that research practices are being carried out in the context of application (instead of discovery), are trans-disciplinary (instead of mono- or multi-disciplinary), are heterogeneous, non-hierarchical, non-linear and not

Table 1. **Characteristics of the PhD and PD**

Characteristic	PhD	Professional doctorate
Definition	A programme of research enabling candidates to make an original and significant contribution to scientific knowledge	A programme of research and advanced study enabling candidates to make a significant contribution to knowledge and practice in their professional context ¹
Entrance qualification	BA, MA/MSc, Mres	Often no specific diploma requirements, but flexible admission (provided basic quality), sometimes explicitly honours degree
Mode of enrolment	Often full-time	Often part-time
Students	Future researchers, mostly young(er) students	Professionals, mostly mature students
Title	PhD (sometimes DPhil)	D + indication of profession (DBA, EdD, MD, etc.)
Professional experience required	No	Yes, in the specific field (often two years or more)
Teaching	Often not, but a large variety in practice	Both subject-based and research methods
Learning process	Mostly solitary, stress on individual research related skills	Cohorts, stress on individual assignments and teamwork, professional skills
Credit use	In United States, but not in United Kingdom	Yes
Size of dissertation	Not specified, but on average larger than PD	Not specified, but on average smaller than PhD
Assessment	Dissertation	Dissertation + assignments, course work (sometimes portfolio)
Topic	(Mostly) academically inspired	(Mostly) professionally inspired
Requirement to enter certain careers	Yes, requirement for entering academic positions	Only for some professions
Focus	Significant research contribution to the discipline(s)	Significant research contribution to the field of study/profession and/or significant contribution to the student's professional practice
Supervision by	Academic expert in the specific (sub)discipline	Sometimes additional supervision by professional expert

1. Slightly adapted from the Australian Council of Deans and Directors of Graduate Studies (1998).

institutionalised within university structures. The professional doctorate may be seen as matching more closely the requirements of the preparation of future Mode 2 knowledge workers (Usher, 2002). In a similar vein, slightly adjusting the metaphor of the triple helix between governments, universities and business/industry (Etzkowitz and Leydesdorff, 1997) to an intertwining of universities, governments and *professions*, the professional doctorate may very well fit some of the current knowledge economy's requirements. Furthermore,

concerning the complaints regarding the traditional PhD such as long study duration, high drop-out rate, lack of transferable skills and teamwork, the professional doctorate may offer some consolation, particularly given the background and motivation of new types of students.

Careful with that axe

However, we should be wary of embracing the professional doctorate (and possibly other doctorates) as the ultimate solution to the current problems and dilemmas in the field of doctorate education. Realistically it cannot be and, more to the point, it should not be. It should be stressed that the professional doctorate has not been developed to solve problems associated with the traditional doctorate. Its development is largely driven by dissatisfaction with a certain discipline's traditional doctorates and by a clientele that was attracted to the idea of a professional doctorate. In addition, the differences in professional doctorate's practice from university to university, from country to country, and from discipline to discipline are too large to consider the professional doctorate as **the** encompassing solution. Lockhart and Stablein (2002) for example make the distinction between two different models of the Doctorate in Business Administration. They note that one model treats the DBA as an advanced MBA with a taught course component and a project component. They cite the second model, which contains a taught course component and a major research thesis oriented to the development of both knowledge and practice, as more significant to the knowledge society.

However, even if it were the case that the professional doctorate would fit the current (and future) needs of the knowledge economy, it does certainly not disqualify the traditional PhD. As Enders and De Weert (2004, pp. 143-144) argue: the implications of Mode 2, beyond the critical claim of old wine in new bottles, may vary across disciplines. They assert that – even more importantly – the changes in the context of science and research (as analysed by Gibbons and others) certainly urge to think through its consequences, but it does not *a priori* necessitate epistemological change. The distinction may be more closely related to a distinction between the kinds of knowledge designed to enhance the efficiency and effectiveness of the socio-economic system as compared to the kinds of knowledge traditionally legitimated by academe. It is also not (yet) clear whether the new production of knowledge requires a different training for researchers. Muller (2002) for example has argued that Mode 2 cognitive skills, in the absence of a foundation of Mode 1 knowledge, may in fact give students limited notions of application and may not be able to equip students with the conceptual skills relating to extension and innovation. To quote Enders (2002, p. 516) it seems “... premature to declare the death of Humboldt before knowing more about the outcomes of new

models of doctoral training on the labour market”. In other words, it is important to distinguish two questions: how to design doctoral training in the context of academic careers in the knowledge economy? and how can the professional doctorate contribute to current challenges of the knowledge economy?

There are other important reasons not to rely solely on the professional doctorate as the saviour of the university. First, there have been a range of critical analyses of the professional doctorate. Neumann (2005) noticed that professional doctorates in Australia suffered from a lack of close involvement with industry or the professions. Green (2002) addresses low completion rates and long time-to-degree, particularly in light of the difficulty of students often combining full-time jobs with the professional doctorate. The large variety of students’ backgrounds and differing expectations within professional doctorate cohorts are also seen as difficulties. This is not to say that the literature is overtly critical towards the professional doctorate. On a positive note, Hoddell *et al.* (2002) argue that professional doctorates and other routes incorporating significant teaching better serve the expectations of the United Kingdom’s Quality Assurance Agency’s *National Qualifications Framework* (see also Maxwell, 2003 for some reflections of a positive nature). Second – and more generally – we do not yet know enough about the professional doctorate. This is partly due to the large amount of grey literature and partly due to the fact that the professional doctorate still “suffers” from the liability of newness: there is in general a lack of understanding of what the programme actually contributes. There is no reason to be more critical towards the achievements of the professional doctorate than towards the traditional doctorate. But it is simply true that the traditional doctorate – in terms of students’ experiences, their position on the labour market and other related factors – is less of a black box than the professional doctorate (but see the recent studies of Neumann, 2003, 2005; Park, 2005). There is more research needed on the professional doctorate in Europe and there is also something to learn from the debates in particular disciplines that have been held – and sometimes not concluded – on professional doctorates in the United States [see *e.g.* a special issue of *Educational Perspectives* (2004) and Townsend (2002) on the professional doctorate in the field of education].

In conclusion

The professional doctorate deserves more attention in the political debates on the necessary changes in doctoral education; the current policy agenda – at the supranational, but also on the national levels – focuses (too) much on changing the traditional PhD. This is good in itself, but a look beyond the traditional doctorate widens the political horizon considerably. Although attention is warranted, the professional doctorate is clearly not a one-size-

fits-all solution. First, it is not the intention of this doctorate and second, the professional doctorate has problems of its own – sometimes not that different from the problems of the traditional doctorate – that need continual attention. However, if the mantra that the knowledge society requires greater flexibility is adopted, then it would follow that the aims, structures and processes of doctoral education should be characterised by greater diversity and hence flexibility. Seen in this light, the professional doctorate clearly shows a great deal of potential in the context of the knowledge economy and merits greater critical research and policy focus.

The authors :

Prof. dr. Jeroen Huisman
 Director of the International Centre
 for Higher Education Management
 School of Management
 University of Bath
 Bath BA2 7AY
 United Kingdom
 E-mail: j.huisman@bath.ac.uk

Dr. Rajani Naidoo
 Director of Studies of the DBA
 in Higher Education Management
 Department of Education/School of
 Management/University of Bath
 Bath BA2 7AY
 United Kingdom
 E-mail: edsrn@bath.ac.uk

References

- Allen, C.M., E.M. Smyth and M. Wahlstrom (2002), "Responding to the field and to the academy: Ontario's evolving PhD", *Higher Education Research and Development*, Vol. 21, No. 2, pp. 203-214.
- Barnett, R. (1990), *The idea of higher education*, Open University Press and SRHE, Buckingham.
- Bartelse, J. (1999), *Concentrating the minds*, Lemma, Utrecht.
- Bergen Communique (2005), *The European higher education area – Achieving the goals*, Bergen.
- Bourner, T., R. Bowden and S. Laing (2001), "Professional doctorates in England", *Studies in Higher Education*, Vol. 26, No. 1, pp. 65-83.
- Clark, B. R. (1998), *Creating entrepreneurial universities: Organizational pathways of transformation*, Pergamon, Oxford.
- Clark, B. R. (2004), *Sustaining change in universities. Continuities in case studies and concepts*, SRHE and Open University Press, Maidenhead.
- Clark, J. (1996), "Postgraduate skills: A view from industry", paper presented at the Deans of Graduate School meeting, Adelaide, Australia, 16 April.
- Educational Perspectives* (2004), Special issue on the doctorate in education, Vol. 37, No. 2.
- Enders, J. (2002), "Serving many masters: The PhD on the labour market, the everlasting need of inequality, and the premature death of Humboldt", *Higher Education*, Vol. 44, pp. 493-517.

- Enders, J. and E. De Weert (2004), "Science, training and career: Changing modes of knowledge production and labour markets", *Higher Education Policy*, Vol. 17, pp. 135-152.
- Etzkowitz, H. and L. Leydesdorff (eds.) (1997), *Universities in the global knowledge economy*, Cassell, London.
- European Commission (2002), *Higher education and research for the ERA: Current trends and challenges for the near future. Final report of the STRATA-ETAN expert group on foresight for the development of higher education/research relations*, European Commission, Brussels.
- European Commission (2003), *Researchers in the European Research Area: One profession, multiple careers*, European Commission, Brussels.
- European Science Foundation (2002), "Agents for change. Bringing industry and academia together to develop career opportunity for young researchers" (ESF Policy Briefing), ESF, Brussels.
- European University Association (2005a), *Conclusions and recommendations. Bologna seminar on "Doctoral programmes for the European knowledge society"*, EUA, Salzburg.
- European University Association (2005b), *Glasgow Declaration. Strong universities for a strong Europe*, EUA, Brussels.
- Frijdal, A. and J. Bartelse (eds.) (1996), *The future of postgraduate education in Europe*, European Commission, Brussels.
- Gibbons, M., C. Limoges, H. Nowotny, S. Schwartzmann, P. Scott and M. Trow (1994), *The new production of knowledge*, Sage, London.
- Green, H. and S. Powell (2005), *Doctoral study in contemporary higher education*, SRHE and Open University Press, Maidenhead.
- Green, P. (2002), "Coping and completing: The challenge of the professional doctorate in the knowledge economy", paper presented at the Quality Conversations. HERDSA, Perth, Australia, 7-10 July.
- Halsey, A. H. (1992), *Decline of donnish dominion. The British academic professions in the twentieth century*, Clarendon, Oxford.
- Hoddell, S., D. Street and H. Wildblood (2002), "Doctorates – converging or diverging patterns of provision", *Quality Assurance in Education*, Vol. 10, No. 2, pp. 61-70.
- Huisman, J., E. de Weert and J. Bartelse (2002), "Academic careers in Europe. The declining desirability of the faculty position", *Journal of Higher Education*, Vol. 73, No. 1, pp. 141-160.
- Jongeling, S. (1996), "PhD or professional doctorate?" paper presented at the Research Administrators' Conference, Canberra, Australia, 27-29 November.
- Lockhart, J. C. and R. E. Stablein (2002), "Spanning the academy-practice divide with a doctoral education in Business", *Higher Education Research and Development*, Vol. 21, No. 2, pp. 192-202.
- Maxwell, T. W. (2003), "From first to second generation professional doctorate", *Studies in Higher Education*, Vol. 28, No. 3, pp. 279-291.
- Neumann, R. (2003), *The doctoral education experience: Diversity and complexity*, Department of Education, Science and Training, Canberra.

- Neumann, R. (2005), "Doctoral differences: Professional doctorates and PhDs compared", *Journal of Higher Education Policy and Management*, Vol. 27, No. 2, pp. 173-188.
- Noble, K. A. (1994), *Changing doctoral degrees: An international perspective*, SRHE and Open University Press, Buckingham.
- Nowotny, H., P. Scott and M. Gibbons (2001), *Re-thinking science: Knowledge and the public in an age of uncertainty*, Polity Press, London.
- OECD (1987), *Post-graduate education in the 1980s*, OECD, Paris.
- OECD (1991), *Postgraduate education today: Changing structures for a changing Europe*, OECD, Paris.
- OECD (1995), *Research training. Present and future*, OECD, Paris.
- Park, C. (2005), "New variant PhD: The changing nature of the doctorate in the UK", *Journal of Higher Education Policy and Management*, Vol. 27, No. 2, pp. 189-207.
- Scott, D., A. Brown, I. Lunt and L. Thorne (2004), *Professional doctorates. Integrating professional and academic knowledge*, SRHE and Open University Press, Maidenhead.
- Townsend, B. K. (2002), "Rethinking the Ed.D., or what's in a name?" paper presented at the Annual Meeting of the Association for the Study of Higher Education, Sacramento, US, 21-24 November.
- UK Council for Graduate Education (2002), *Professional doctorates*, UKCGE, Dudley.
- Usher, R. (2002), "A diversity of doctorates: Fitness for the knowledge economy?", *Higher Education Research and Development*, Vol. 21, No. 2, pp. 143-154.
- Verger, J. (1978), *Universiteiten in de middeleeuwen [Universities in the Middle Ages]*, Unieboek, Bussum.
- Wormell, I. (2004), "Professional doctorate – a new and widened perspective for professional and personal development within LIS", paper presented at the Knowledge and change, 12th Nordic Conference on Information and Documentation, Aalborg, Denmark, 1-3 September.

Widening Access through Partnerships with Working Life

by

Andrew Casson
Dalarna University, Sweden

Dalarna University has doubled its student numbers during the past five years, and now has the highest proportion of students from non-academic backgrounds of Swedish universities (37%). The province of Dalarna combines steel and paper industry in a number of relatively small towns with large areas of sparsely populated countryside. By tradition, people in Dalarna have one of the country's lowest rates of university-level education and the establishment of the university in 1977 did little to change this situation. This was true up until the late 1990s, when the University began to set up a number of steering councils together with representatives of different areas of working life. The external representatives chair the councils and have in practice a considerable amount of influence on two undergraduate programmes. The first of these, which was established together with the education authorities in the region, has for example had a major impact on the structure of teacher education, on the types and rates of in-service learning and on the development of the schools themselves, combining research and practice. The Council for Educational Development was followed by similar bodies for the social services, for healthcare and for industry. The article discusses the opportunities and hazards involved in a university establishing this type of body.

The article also discusses the collaborative establishment of Learning Centres in the fifteen municipalities of the province and how these have contributed to major increases in tertiary participation, particularly in rural areas. Both these types of development make new demands of staff and university administration.

Dalarna and its university

The province and county of Dalarna, the size of Belgium, is located in central Sweden in an area of exceptional natural beauty; lakes, forests and farming land to the south and east, forests and mountain areas to the north and west. The population totals 280 000, about 100 000 of them concentrated in the twin towns of Falun and Borlänge, 20 km apart. Borlänge is primarily an industrial community with large steel and paper works, whereas Falun bases its prosperity on a large number of smaller manufacturing companies as well as being the regional administrative capital and providing hospital services for the region. The county comprises fifteen municipalities responsible for schools, welfare, etc. whereas healthcare and hospital services are provided by the County Council.

Levels of education are low in the county by Swedish standards. Twelve per cent of the adult population have three years or more of higher education (national average 18%), with higher levels for women than for men. In one of the municipalities in the sparsely populated west of the region, Vansbro, for example, the difference is even more pronounced with 6% at this level of education, but twice as many women (8%) as men (4%). Current participation levels are however much higher, equal to or exceeding national averages.

Högskolan Dalarna was founded, along with a number of other regional universities, in 1977, based on an old tradition of teacher training in Falun and of engineering education in Borlänge. Real expansion began in the 1990s when the universities were also deregulated and given considerable freedom by the Government to develop as they found fit. Numbers of registered students are now around 10 000 or 6 000 full-time equivalents. Undergraduate and masters-level courses and programmes now make up 75% of the university's turnover, the remainder comprising research. After more than a decade of rapid expansion in both teaching and research, the university is for the first time cutting back on staff and student numbers, the Government having capped spending on higher education for the coming three-year period.

The children of the middle-classes in Dalarna have often moved to Uppsala or other traditional universities for their higher education and the range of programmes at Högskolan Dalarna has often reflected the interests of first-generation academics. Combined with active outreach activities and a relatively clear policy on access issues, this has led to Högskolan Dalarna currently having 37% students from working-class backgrounds, which in fact is among the highest levels of academic institutions in the country, the

national average being 23%. By the same definition, exactly the same proportion, 37%, of the Swedish population belongs to the working class. The university staff numbers 630, of whom around 400 are academics. Areas of strength still include teaching education and engineering – not least in material sciences where a considerable volume of research is conducted in collaboration with industry. The former Nursing College has now been integrated into the University as well as new subject areas such as business, tourism, media and sports science. Well-respected subject environments have also developed up in the more traditional arts and social science subjects.

Four development centres in partnership with working life

Although several departments of the university had had considerable collaboration with industry and the public sector earlier, it was not until 1997 that the first of what were to become four centres for development in partnership with different sectors of working life began to develop. *Pedagogiskt utvecklingscentrum Dalarna* or PUD was the first of these. It sprang from the need to coordinate what used to be known as teaching practice for student teachers and extra-mural courses for practising teachers. Since the beginning, one major focus of the organisation has been identifying and satisfying needs for university collaboration in in-service competence development. Another focus derived from the needs created by the restructuring of teacher education. While the former created income for the university in the form of revenue from commissioned courses, the latter was necessary to implement new ideas on the relationship between theory and practice and on where responsibility really lies for the shaping of a new generation of teachers. In the choice between theory and practice, teacher educators at the university reasoned, we need more of both. This idea could be further developed in and together with a practice in partner school environments well known to the student teacher and has not only enhanced the novice's progress but also contributed to a considerable degree of development in partner schools.

During recent years evaluation has also become increasingly used as a tool for school development and PUD has been able to mobilise competent resources to manage the processes of self-evaluation and external evaluation of organisations, processes and projects. Perhaps one of the most potent forums for continuing school development, however, has been the research circle. These circles – numbering over 30 so far – are formed by university research staff together with practitioners, bringing the knowledge and methods of academic inquiry back into the professional lives of those who often abandoned them when they completed their first degrees. Another important innovation has been the introduction of posts for professional masters students, jointly financed by municipal employers and the university. These posts allow co-workers to move freely between the two organisations during a period of

2-4 years, thereby building up mutual knowledge and trust (see Lundgren, 2000, and Oldroyd et al., 2001).

This gives an idea of a process which has taken eight years and has been followed by similar developments in the areas of social welfare services (SUD), nursing and healthcare (HUD) and, most recently, and perhaps the most difficult area of all, with small and medium-sized private enterprises (*Dalacampus Näringsliv*). It is perhaps not surprising that collaboration with SME's has been the most difficult in organisational terms: the stakeholders in each of the public sectors mentioned number only around 20-30. SMEs in the region are counted in thousands and their representatives, both employer and professional organisations, seldom have the type of financial volume or support needed to commission university courses. Nor indeed do enterprises of this kind often have time to invest in the type of long-term competence development involved.

Development Centre councils

Together with the recruitment of a driving force to head these initiatives, the single most important factor for success has without doubt been the establishment of the Development Centre councils and their working committees. These are voluntary but permanent bodies with representatives from employers, professional organisations, university teachers and managers. One key success factor has been the fact that representatives from the publicly financed sector have always had a clear political mandate from their steering bodies to participate. Formal invitations were sent and formal decisions taken by the political majorities of local and regional government.

One of the early discussions was whether there should be a membership fee for the joint development centres. The reasons behind the decision taken – to levy a fee of between 2 000 and 6 000 euros per year depending on the population of the municipality – have proven right: a reasonable fee will mean that the member will strive to get the best possible value for money and require politicians and municipal officers to answer their voters on what they have accomplished for it. The fee has contributed to a relatively high level of commitment from representatives.

Another key factor – and perhaps one of the most interesting in terms of academic governance – is that the university has been seen to surrender some of its actual power over what are normally considered its internal affairs, most notably the range and structure of courses and degree programmes offered. This time, we have not just invited experts in to comment on different aspects of our operation, listened politely and then carried on business as usual. The University has pledged itself to follow the decisions of the Council the chair of which – in all four cases – is recruited externally. However, the working officers of the organisation, those who have daily contact with schools, welfare providers, healthcare centres and hospitals, etc., are employed by the university. And this is

perhaps the most important success factor: while listening carefully to the perceived needs of the region, university staff, both from teaching, research and administration, have been able to influence regional representatives through good arguments and identify needs they sometimes did not know they had. In addition, they have been able to introduce them to innovative ways of catering for those needs, often through collaborative research, development and education. Even though this may sound more like hard sell for household appliances, it is surely fulfilling the role of the modern university in society: not only informing the world around on the research being done within the ivory towers, not only measuring employers' satisfaction with training outcomes but actually identifying and formulating problems and needs together.

To achieve this, a high level of trust has to be built between the different parties and this takes time and requires stability. The councils have been able to provide this through their general meetings about four times a year and working committee meetings about as often, as well as the recurrent spontaneous contacts that occur in collaborative projects of different kinds.

Widened access

Much of Högskolan Dalarna's success in widening access to higher education and increasing the percentage of first generation participation to the highest in the country has been achieved by two patterns of action. The first has been to involve broad categories of public-service employees in shorter courses, the second to make two of the major degree programmes, in teaching and nursing, available "at home" by way of flexible and distance learning. In a third area, that is increasing the recruitment of young people, under the age of 25, from upper-secondary vocational programmes, much still remains to be done.

Much of the competence development instigated by the Development Centre councils has been in the form of short courses, often the equivalent of perhaps only 7.5 or 15 ECTS credits, focusing some aspect of work that needs to be developed. The courses developed in this way by the councils number hundreds during the last few years. They are generally, but not always, part-time, with staff being given time off, book allowances and other support. A basic principle of the system, unfortunately not always easy to follow, is that employers and employees should divide the time spent on the course equally, it benefiting them both in equal proportions, whereas actual expenses are borne by the employer. Another basic principle is that all courses should as far as possible be creditable within the progression of a subject or degree programme. The significance of this is not least psychological for first-generation and first-time higher-education students: if you discover that you can manage the reading, the papers, the exams and the seminars involved in a 15-credit course, and those 15 credits can be used to shorten the time needed to gain a full professional degree, then the next step is obviously going to be a lot easier.

The great majority of these types of courses offered so far by Högskolan Dalarna have been for the public sector, notably for schools, nursing and most recently for social services. The university has been successful in providing for the requirements of industry too, not least in areas such as quality development, but generally speaking the more diversified structures of the industrial and commercial sectors have made it more difficult to identify and coordinate competence needs. Getting the new students onto the ladder is the main key to success and the next step in making sure the rungs are not too far apart is providing one and two-year diploma courses that can be fully accredited for future degrees. Högskolan Dalarna is now offering such courses in technical subjects and is trying to identify ways of taking similar initiatives in areas where professional degrees are considerably longer. These shorter courses developed in close collaboration with our partners in working life will hopefully also attract students under the age of 25 who have done a vocational programme of study at upper secondary school and who would not normally be qualified for entrance in professional programmes in teaching, nursing and engineering, for example. The prospect of a further year of upper-secondary level instruction before entering university is daunting and integrating the skills development required into the first year of a foundation degree course is a way of making the step into higher education more acceptable.

Dalacampus is the name both of an organisational department within the university and of a concept of flexible distribution to all the communities in the county. During the last decade, learning centres have been established in all the communities in the county, often financed by regional development and EU funds. These centres have focused on adult education generally and during the past five years or so they have been mainly concerned with upper-secondary education for those who went through the system before 12-year schooling became almost universal. These mature students have generally been financed by a major three-year Government initiative called *Kunskapslyftet* ("The Knowledge Leap"), providing funding for both providers and students. There has been no specific affiliation to the region's university and the trend originally was to contract cooperation with various higher education institutions around the country to provide distance courses. In most cases in the 1990s and early years of this decade "Distance" meant televising instruction and connecting groups in real-time with their lecturers. Now that developments have left the television screens largely idle and replaced them with the computer and the World Wide Web, the obvious need for physical centres of this kind has diminished. However, one of the success factors behind bringing higher education to new groups of citizens, especially in the case of a sparsely populated region like Dalarna, has been providing a stepping stone actually in the local community itself. Higher education was seen to be something for city people – the learning centres have proved that it is not. However, learning centres are often staffed by former

schoolteachers and housed in former school premises. Their importance is now perceived in official policy as providing a meeting place for learners, as working as a broker between working life, potential staff and education providers and thirdly as an engine for lifelong learning. This places an emphasis on identifying and meeting the competence needs of public and private sectors and of actively working with recruitment (*Lärcentrum och flexibelt lärande för vuxna – tillväxtfaktorer som kräver nytänkande*, Regeringskansliet, 2004). This means, official policy says, that learning centres have to be “deschooled” and seen by the public as something very different from the usual forms of formal schooling. Preferably they should not, in fact, take the form of an actual building but should coordinate physical resources already available in the community.

Two examples of widening recruitment

During the past four years Högskolan Dalarna has carried out two singularly successful initiatives to recruit first-generation students to academic vocational degree programmes. Both have had a gender focus and have been financed partly by regional development funds. The pioneer project was known as “More men in schools” and sought to recruit men interested in a career change to what is fast becoming a profession for women only, teaching. This was done through close contact with and support from local job centres, national insurance offices and not least the community learning centres. All of these helped to identify, encourage and support individuals who would otherwise seldom have entertained the thought of becoming a teacher.

Apart from continuous mentoring and individual study support, there were three strands in guiding these men into teacher education. The first was concerned with giving them the formal qualifications for entering the degree programmes, perhaps the easiest of the three, even if not always for the students, as the upper secondary courses required often meant that the participants returned to study for the first time in decades. The second strand was about providing acceptable practical conditions for study, meaning in effect developing on-line delivery of the entire programme for the first time so that students, a majority of them with families and cemented social structures around them, could continue to live their lives without major social or economic upheavals. This required, of course, most of the creative administrative work from the university and its partners in the public sector. It would be fair to say that this work was made considerably easier by the trust and the knowledge of each others’ organisations that had been built during the years by the work done within the Development Centre councils. The third strand involved building up the participants’ self-confidence and acquaintance with university teaching and learning methods. For this a number of bridging courses were developed, which are not normally offered in the standard range of courses, but which entitled the student who completed them to some credit towards the degree programme.

This meant, again, that first-generation students are helped onto the first rung of the ladder, before they really know it happened. About twenty men entered or will be entering the teaching profession as a result of this project.

The second project was based on the success of the first and focused on attracting more women into technical jobs in a similar way. The main difference here was that most of the women were not only unused to independent study, many of them had lost their confidence, not least in mathematics, at an early stage of their school years. Rebuilding that confidence takes time; financing and finding the type of people who can do it is the most demanding aspect for university management, once the structures to build mutual trust are in place. As a result of the initiative more than 30 women have now entered either full engineering degree programmes at the university or the two-year foundation degree programmes with flexible delivery specially developed, in collaboration with industry, for their needs.

The third phase in this work to widen access in partnership with public and private institutions was initiated in 2004 and will work on the same basis as its predecessors, actively recruiting and encouraging individuals who would not otherwise have had the qualifications or the confidence to enter a university education. It will coordinate the efforts of the university, local job centres, national insurance offices and learning centres to help individuals take the first step into university education and vocational degree programmes, but this time it will be open to both sexes and encourage entry into any of the professional areas available.

There can be little doubt that the establishment of both the development centres and the learning centres have contributed to increase levels of participation in education in Dalarna, that are now on an average for the country (17% of those aged 16-64 in some form of formal education). For instance, in one of the rural districts, Vansbro, mentioned above as having one of the lowest education levels in the county, there is now the highest level of participation – 21%.

The main challenge for the future will be finding funding for this type of proactive recruitment and retention work when external government, regional and EU sources dry up. Will the University itself be able to give priority to the type of individual guidance and support necessary to help individuals to alter their self-images and perceive themselves as successful professionals with HE training? Management should work on this issue, primarily perhaps by influencing attitudes among university staff. There is still some opposition among traditional academics to adapting teaching methods and course content to the new type of student entering the university, and a “sink or swim” attitude can still be seen. Even though their numbers may not be as great at Högskolan Dalarna as at other institutions, it apparently needs to be proven again and again that success in academic subjects in upper secondary schools in your teens is not the only

– indeed, is not even a very good – predictor of success in academic study and learning. It needs also to be shown again and again that students from the urban middle classes are not automatically better adapted to qualified study than those from rural, non-professional backgrounds. Management can do this by ensuring that policies are clearly articulated in matters of values influencing access and recruitment, that the policies are well known and that the subsequent goals, targets and plans of action are allocated sufficient resources to be successful.

Opportunities and hazards

Some of the opportunities this type of close collaboration offers have already been mentioned, not least the enhanced quality and professional relevance of degree courses. It also offers the university the chance to live up to both Government and regional expectations of providing a motor for regional development. In the most recent plan for growth adopted by the Regional Development Authority, Region Dalarna, the role of the university is central for plans in all three areas of main focus, in the attractiveness of the region (for investments, for new residents, for tourists, etc.) in its creativity (not least through entrepreneurship and new enterprise) and in its learning (*Ett levande program för långsiktigt hållbar tillväxt i Dalarna*, Region Dalarna, 2004). In the ambition to develop Dalarna as a learning region with a much enhanced level of coordination and collaboration between the different stakeholders in education and training, both public and private, Högskolan Dalarna is identified as the key player and coordinator. It is not least through the Development centres and councils that the university will be able to live up to some, if not all, of these expectations.

The ideology and policy underpinning all these developments at Högskolan Dalarna is that “the third task” of the university, as interaction with the community has become known in Swedish higher education (the first and second tasks being of course teaching and research), is something more than informing the world about the research carried out in the ivory tower (cf. Brulin, 2000). Instead it should be seen as local and regional *learning*. This is a line of reasoning most clearly set out by John Bowden and Ference Marton in their *The University of Learning*: seeing “teaching” as individual learning, “research” as collective learning and interaction with or service to the community as local learning focuses the most important process involved and underlines the common goal of all the activities of the university. Learning on the local level, they reason,

“has to do with the formation of knowledge as a response to specific, often local, demands, or the making of knowledge available for specific purposes or the involvement of people outside the university in finding out things of vital interest to those involved” (Bowden and Marton, 1998, p. 277).

And “finding out things of vital interest to those involved” is precisely what the efforts of the development councils have involved, in forms such as widened access to professional education, in research circles, in evaluation and in all the other formal and informal dealings between the university and its partners.

The major problem in all this is of course a problem of independence and influence. The universities are funded by the State (in Sweden at least) and expected to function as a whistleblower and watchdog for the rest of society. The freedom of researchers to select topics and methods for their research is laid down in law. Is the academy sacrificing its hard-won independence if it allows external interest unduly to influence curricula and research? This is a question that has been directed at Högskolan Dalarna repeatedly during the past years by the groups of subject experts called in by the National Agency to audit quality in subjects and degree programmes. It is an essential discussion but one that falls outside the scope of this short paper; suffice it to recall Nicholas Maxwell’s point (Maxwell, 1987) summed up by Ronald Barnett:

“a large-scale societal enterprise, scientific enquiry and education, has been hijacked *internally* by the scientific community” (Barnett, 1994, p. 144)

– meaning that the freedom of academe must be weighed against its fundamental responsibility to society.

Demands on institutional management

There is always a conflict embedded in the matrix of responsibility inherent in the academy. On the vertical axis there are academic subjects and departments, responsible for teaching staff and quality, as defined by the international academic community, while on the horizontal axis there are the demands of both students and of the world of work, hardly ever corresponding to the division of academic subjects. The range of capabilities and competences required for a certain area of work lies seldom within the domain of one academic subject. This means that both undergraduate professional programmes and research into real-world problems require the coordination of resources from different subjects and departments of the university. This matrix is naturally also very apparent when trying to manage resources in the university. The simplest way for management to handle this tension would be to give full responsibility for professional education and development to individual subjects and departments. In cases where subjects have grown out of a profession, say for example nursing science, it may work reasonably well, even though the scope will be limited for bringing the expertise of other subject specialists to bear on areas of work not usually associated with the subject. In a subject organisation there would be a tendency to guard borders jealously and not invite say, computer

sciences or anthropology to come into nursing, an area where both could do a lot of good. As Ronald Barnett, and many before him, have noted:

“Academics would sooner speak to another academic in the same field on the other side of the world before they would speak to an academic in an entirely different field in the same institution... Very often, for mutual comprehension to occur, mutual antipathy if not downright hostility has to be overcome” (Barnett, 2000, p. 110).

Or even where there is a more open attitude, the chances are that the host subject will simply not be aware of the good “external” subjects could bring to their programmes.

The interests represented by the development centres also naturally straddle the borders of subject areas and of departments and although heads of department and subject leaders are interested in the types of commission offered, tensions tend to arise between academic departments and the free-movers of the development centres. There must be some form of compensation available for those willing and capable to develop and run the types of course required, often demanding a great deal of entrepreneurial acumen and inconvenience in the form of travel and evening or weekend work. One obvious alternative would of course be to employ the academic staff needed directly under the Development Centre. This on the other hand reduces the flexibility entailed in having access to the entire staff of the university for development centre work and it also weakens academic departments as it robs them of a number of what would generally be key co-workers.

As planning horizons are often considerably shorter for Centre work than for normal teaching or research, departmental managers have to be beseeched to leave 10-50% of certain lecturers’ time unfilled when planning for the coming term or year. As the same staff are likely to be sought after for undergraduate work and departmental heads are hard pressed in times of downsizing, this is not easy to accomplish. It means that the heads of department have to be willing to give their staff a long leash and considerable freedom to fill their quotas at short notice – for tasks that do not immediately reward the individual department or its finances. It may also result in considerable accumulation of overtime for certain individuals, an expensive and unpopular outcome in Swedish university administration. Senior management must therefore again be clear and consistent about the value of the partnership and Development Council initiatives.

Another interesting problem for management to address is the physical location of the skeleton administrative staff employed within each of the Centres. They need to be in the vicinity of the academic staff they are relying on to gain knowledge and credibility, but they also need to learn from each other, not least the business skills and entrepreneurial spirit needed for the job, and this requires continual contact.

Given the matrix of tension between different interests described above, responsibility for managing the type of operation this article presents must lie at the central interstice, that is with senior management. An officer with specific responsibility for the working of the collaboration organisation must belong to the most senior executive of the university and feel both the ideological and financial backing of the Board and the rector.

With such clarity of policy and backing, and with an awareness of the threats to independence that are involved, there can be little doubt that creating and maintaining joint bodies in partnership with external organisations and giving real power to those bodies can result both in widened access and in the local and regional learning that is at the heart of policies for growth, prosperity and empowerment.

The author:

Dr. Andrew Casson
Vice Rector
Högskolan Dalarna
791 88 Falun
Sweden
E-mail: aca@du.se

References

- Barnett, R. (1994), *The Limits of Competence. Knowledge, Higher Education and Society*, Buckingham, Open University Press.
- Barnett, R. (2000), "Reconfiguring the University", in Peter Scott (ed.) 2000, *Higher Education Re-formed*, London, Falmer.
- Bowden, J. and F. Marton (1998), *The University of Learning, Beyond Quality and Competence in Higher Education*, London, Kogan Page.
- Brulín, G. (2000), "The Third Task of Universities or How to get Universities to serve their Communities", in Peter Reason and Hilary Bradbury (ed.) 2000, *Handbook on Action Research, Participative Inquiry and Practice*, London, Sage.
- Ett levande program för långsiktigt hållbar tillväxt i Dalarna*, Region Dalarna 2004.
- Lärcentrum och flexibelt lärande för vuxna – tillväxtfaktorer som kräver nytänkande*, Regeringskansliet 2004.
- Lundgren, M. (2000), *Forskningscirklar och skolutveckling – ett lärarperspektiv*, Falun, Högskolan Dalarna.
- Maxwell, N. (1987), *From Knowledge to Wisdom*, Oxford, Blackwell.
- Oldroyd, D., M. Lundgren and R. Melin (2001), "Co-operation between universities and schools – Some experiences from Dalarna Pedagogical Development Centre", paper presented at the HSS conference, Halmstad 2001.

The Politics of Access: Measuring the Social Returns on Post-secondary Education

by

Michael Conlon

Canadian Federation of Students, Canada

This article examines the most recent data on the cost and financing of a post-secondary education. It also examines the burgeoning debate in Canada about the relationship between tuition fees and access to post-secondary education.

In recent years longitudinal data collection has improved and there is now a relatively wide body of research tracking the effect of higher tuition fees and student debt in Canada. After outlining this data landscape, the author interrogates the question of equity and access in light of what we now know. Recent discussions about access have focused on the constrained finances of national governments and the funding shortages experienced by universities. The outcome of these discussions has, more often than not, been the downloading of costs to students and their families. That shift in the financing of an education from the state to the individual begs a series of questions about equity and access. Questions such as: Is the shift to individualized financing inevitable? If not, what are the politics of this shift? What is an acceptable level of student debt? At what point does debt become a prohibitive factor for low income families? Do “innovative” policy ideas like a graduate tax or savings schemes really cushion the blow of fee hikes? Is increased financial assistance (i.e. loans) an equitable answer? To what degree do other intersecting social and economic factors affect access? How does the prospect of increased debt and fees depress the participation rate of those already lacking social and financial capital? Though it offers few definitive answers to these questions, hopefully the article will contribute to highlight some new dilemmas that are decidedly missing from the largely econometric analysis of fiscal reforms in higher education.

Although the data are primarily Canadian, the article also makes the case that many of these dilemmas are at forefront of recent developments in European higher education policy. In particular, the recent and heated debate about “top up” fees in Britain closely mirrors the ongoing national debate in Canada about equity, access and the cost of post-secondary education.

“Let’s be clear about the effect of unsustainable cost and the resulting debts on individual students. Wherever tuition goes down, enrolment goes up. And where does the increase in students come from? From those with less money. In other words, the lower the fees, the more egalitarian the society. The lower the fees, the more we are able to release the genius of the citizenry as a whole. And that genius, that collective unconscious is the key to a successful democracy.”

John Ralston Saul

Simon Fraser University Convocation Address, October 5, 2000.

Canadians have long seen our system of post-secondary education as a vehicle for social opportunity. Since the end of World War II, access to university and college has formed the foundation of equality of opportunity. The expansion of opportunity at Canadian universities and colleges was a direct result of substantial and sustained public investment beginning in the 1960s. Prior to the mid 1960s access to education in Canada was defined almost exclusively by gender and income. That changed because the federal government made access to education a fiscal priority.

This history is a useful addendum to this article’s argument because it offers a critical perspective on some of the not so new dilemmas facing the federal government in Canada. Throughout this article, it is argued that federal funding cuts undermine the ability of the federal government to develop a sustainable, long term strategy to promote access for low-income Canadians. It is also argued that, in place of a national vision for accessibility, we have a piecemeal approach that has produced results which reflect this lack of focus. The argument is placed in the context of the emergent tension in most governments between the drive for lower taxes and more “efficient” government and the equally pressing need of securing social equity. Though most of the data are Canadian, there is good reason to believe that the challenges outlined here are endemic to OECD countries.

In addition to reviewing the academic and statistical literature on access and costs, the article assesses federal government policy initiatives in the context of those currently denied access to college and university. In doing so it links the policy challenges of access to post-secondary education with the growing gap between the rich and the poor in Canada. The article also demonstrates how the drift away from core funding toward boutique programs has undermined access. In particular a massive expansion of tax

credits has become a proxy for the federal government's ambition to promote access among low income Canadians.

In briefly examining the Canada Student Loan Program the author contends that using loans as the primary vehicle for promoting access to post-secondary education has had mixed results. More importantly, he tries to forcefully make the case, backed by data, that loans are a particularly ineffective way of increasing access if they are introduced in concert with large increases in user fees.

The data clearly suggest that income rather than initiative is determining access to post-secondary education in Canada. Statistics Canada's study, *Participation in Post-Secondary Education and Family Income*, reports that those in the highest quartile of income are twice as likely to attend university. In a later study Statistics Canada controlled for rural residency and found that the high income earners in rural Canada were 5.6 times more likely to attend university than those in the bottom income quartile. Only 18.8% of 18-21 year olds from families in the lowest income quartile, attended university between 1993 and 1998, whereas 38.7% of those from the highest income quartile attended university during the same time period.

Statistics Canada's recent *Youth in Transition Survey* documented the fact that 72% of those who faced barriers to post-secondary education listed financial reasons as the number one barrier.

A historical study undertaken by the Canadian Association of University Teachers (CAUT) entitled *Access Denied* shows that post-secondary education is less affordable today than at any time in the last sixty years. The report examines changes in tuition fees from 1857 to 2002. When fees are adjusted for inflation, undergraduate university students today are paying more than at any other time in the past century.

The study measures how affordable university education is today compared with previous periods by plotting the number of hours of work (at an average carpenter's wage) it would take to pay for one year of tuition fees. By this account, it takes more hours of work to pay for tuition fees today than at any time since 1940.

CAUT also demonstrates that the decline in affordability is felt most acutely by those at the lowest end of the spectrum. A study entitled *Out of Reach: Trends in Household Education Spending*, argued that "the impact of higher fees [is] most discernible in terms of exacerbating inequalities in access". Between 1991 and 1998 the real income and buying power of Canadians with the lowest 20% of after-tax income declined. Consider then that in 1991 families in this category would have to earmark 14% of their household income to pay tuition fees. By 1998 that amount had increased to 23%, which is actually an increase of over 60% once coupled with the decline in buying

power. This conclusion is also confirmed by *Statistics Canada's 1997 Education Quarterly Review* that reports a 5% decline in median family income in the 1990s and a startling 21% drop in the average employment income of those between the ages of 21 and 24 during the same period.

Studies conducted by individual universities examining the effect of tuition fees on the accessibility of professional programs have come to similar conclusions. The Department of Epidemiology and Biostatistics at the University of Western Ontario undertook a study on the accessibility of Western's medical school in the years immediately following the deregulation of tuition fees in Ontario. This study was conducted over a four-year period to determine the effect of steep fee increases on the characteristics of new students. The study examined participation rates by socio-economic status and documented a dramatic decline in participation rates from low-income families by the fourth and final year of the study. In the first year examined, 17.3% of students in medical school came from homes where family income was under CAD 40 000. In that year, students were paying the regulated tuition fees of approximately CAD 4 000. By the fourth year of the study, when tuition fees had risen to over CAD 10 000, only 7.7% of students were from homes of family income of less than CAD 40 000. As a result of deregulated tuition fees, there was 50% decline in the participation of low-income students.

In the September 2, 2003 edition of the *Canadian Medical Association Journal*, the editorial pages focused on access and medical school tuition fees. Based on recent enrolments, the authors made the case that fewer and fewer low-income students will be able to afford medical school. The editors also raised the concern that high fees will exacerbate the divide in medical service between rural and urban communities. With debt levels in excess of CAD 100 000, students will invariably look to lucrative urban appointments. The editorial also attributed the dramatic drop in medical school graduates practicing family medicine to expected student debt levels.

This evidence becomes more worrisome when it is viewed in the context of recent data on the growing gap between the rich and the poor in Canada. Statistics Canada's 2001 census report showed that the income of those in the bottom quintile remained stagnant through most of the 1990s while families in the top one tenth of income made substantial gains. These findings are corroborated by other Census data that found that those under age thirty are earning substantially less, on average, than the equivalent age group in 1980. This statistic is troublesome on two levels: first, it means a decline in disposable income for those facing tuition fees that increased by 130% in the 1990s. Second, for those lucky enough to attend college or university this income data shows that they are likely to experience difficulty paying back mortgage-size loans. Thus, Canada has the most indebted generation in its history facing a real decline in their income. The same study also reports that

immigrants to Canada saw a startling decline in income during the 1990s. Given the socio-economic data outlined above it is clear that the federal government's rhetoric about an inclusive system of post-secondary education is not matched by the reality of working Canadians. There is now a clear social divide when it comes to access to post-secondary education. Furthermore, most of the research on the issue suggests that the divide is likely to get worse without strategic policy interventions from the federal government.

The most recent data from Statistics Canada substantiates the fear that access is now determined by socio-economic status. In a report released in September 2003, entitled *Access, Persistence, and Financing: First Results from the Post-Secondary Education Participation Survey (PEPS)*, researchers document an 83% participation rate for young people (aged 18 to 24) whose estimated family earnings exceeded CAD 80 000. Those from lower socio-economic strata had progressively lower participation rates. 67% of youth from families earning between CAD 55 000 and CAD 80 000 had some post-secondary education background, and only 55% of youth from families earning less than CAD 55 000 had some college, university, or CEGEP experience. The study also reinforces an earlier study which shows that only 19% of families earning under CAD 30 000 per year are able to save for a child's education. The study estimates the median cost of one year of post-secondary education at CAD 11 200. In addition to amplifying the inequities of the Registered Education Savings Program, this data reinforces the necessity of needs based grants and a national strategy on tuition fees.

All of this might suggest to some that the federal government is not spending money on post-secondary education. In the main that is true: direct transfers for education have declined by close to CAD 5 billion since 1995. However, since the mid 1990s, the federal government has increasingly looked to tax expenditures as a substitute for directly allocated student financial assistance. Federal tax expenditures for education have grown from an estimated CAD 566 million in 1996 to a projected CAD 1.43 billion in 2002.¹ Some of the more significant new measures and changes to existing education-oriented tax credits have included:

- 1996 to 2001: A series of increases to the education amount (the amount on which the federal non-refundable education credit is calculated) has raised the potentially allowable credit from CAD 13.60 to CAD 64 per month of full-time studies.²
- 1997: The non-refundable education and tuition tax credits were altered so as to allow students to carry value forward if the credits cannot be claimed in the original year.
- 1998: The introduction of a 17% federal tax credit on the interest portion of federal and provincial student loan payments (changed to 16% in 2001).

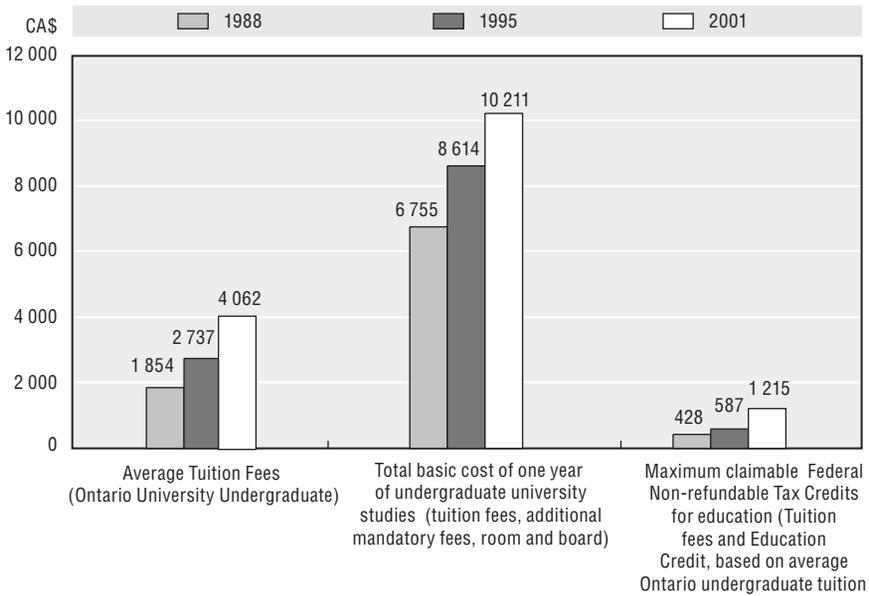
Despite the size of these expenditures, they have failed to keep up with rapidly escalating tuition fees and living costs. Canadian students are significantly financially worse off now than they were in the late 1980s and early 1990s. Moreover, evidence suggests that education-oriented tax expenditures disproportionately benefit higher income earners, and that education tax credits as a general policy do little or nothing to improve the accessibility of higher education.

Of these various federal tax measures, the non-refundable education and tuition fee tax credits have been the most expensive and the most widely used. In the 2000 tax year,³ 2 169 360 students and parents/grandparents of students claimed the education and tuition amounts, costing the federal government CAD 909 728 140 in deferred tax revenues.⁴ The changes introduced in the 2001 budget will likely raise this total even higher.

With a probable overall price tag of over CAD 1 billion for the 2001 tax year, these credits undoubtedly appear impressive when viewed as a total amount. One would expect an expenditure of this magnitude to deliver significant improvements to the financial well being of individual Canadian students. However, the unfortunate reality is that changes to federal non-refundable tuition fee and education tax credits have actually done very little to offset the soaring tuition fees and increased living costs students have faced over the last decade. Figure 1 compares average Ontario university undergraduate tuition fees to the maximum federal non-refundable education tax credits available to Ontario students in 1988, 1995 and 2001 (in 2001 dollars). In 1988, an average Ontario university undergraduate student paid CAD 1 854 in tuition fees and could claim or transfer up to CAD 425 in federal education tax credits, leaving a gap of CAD 1 426 between these tax credits and tuition fees. By 1995 this gap had increased to CAD 2 151, as tuition fees climbed to CAD 2 737 and applicable education tax credits rose to CAD 587. By 2001 average tuition fees had risen to over CAD 4 000 and, despite increases to the education amount in the 2001 budget, the gap between tuition fees and federal tax credits was nearing CAD 2 900.

The gap between claimable amounts of federal tax credits and the costs facing students is even more dramatic. Combined tuition fees, mandatory student fees, and room and board for an average Ontario university undergraduate student climbed from CAD 6 755 per year in 1988 to CAD 10 211 in 2001. While tax credits also rose during this period, they did little to offset increasing costs. The maximum federal education and tuition fees credit available to an average Ontario university student in 2001 amounted to only CAD 1 215, leaving a gap of almost CAD 9 000 between basic education costs and applicable federal non-refundable tax credits for education.

Figure 1. **Ontario tuition fees, total education costs and federal non-refundable tax credits for education**
1988, 1995 and 2001 (in 2001 Dollars)



Substantial disparities exist on the average amount being claimed by income bracket through the education and tuition fees credit. Individuals from the highest income brackets tend to claim more on these credits than do claimants from the lower and middle-income ranges. In the 2000 tax year, for example, claimants with incomes less than CAD 60 000 a year claimed an average of CAD 409 worth of education and tuition fee credits. Claimants earning over CAD 250 000 (most of whom presumably claimed this credit as a transferred amount from a child) averaged CAD 628 on these same credits. A substantial (and rising) percentage of non-refundable education credits are being claimed as amounts transferred, which provides no guarantee that the full value of this credit is necessarily being applied to education-related expenses.⁵ The Department of Finance estimates that total education credits transferred have outstripped total credits claimed by students since 2001 (excluding amounts carried forward).⁶

The “carry forward” measures introduced in 1997 have allowed lower income students to claim non-refundable credits that would have been lost to them in the past. Although this is a small improvement over the previous system, it contains a flaw that again skews the value of the credit towards those with higher incomes. Because of inflation, students who are forced to

carry forward education and tuition credits ultimately gain less value from their credits than students who have enough income to claim them in the year they are assessed. Lower income students are thus penalised for not having enough income to claim the credits when they are first made available. With the total carry forward of education and tuition fee credits projected to reach CAD 380 million by 2003, the cumulative amount lost by lower income students through this depreciation could run into the millions of dollars.⁷

The Student Loan Interest Credit is probably the least useful of current federal tax expenditures for education. Though the total “cost” of this credit was over CAD 71 million in 2000, the average amount claimed on it works out to only CAD 9.50 per month worth of debt and tax “relief” per claimant. Low-income earners (less than CAD 20 000) only received an average of CAD 6.83 a month. As this credit is only available on interest paid, it provides absolutely no relief to the most desperate student loan holders who are unable to keep up with their loan payments. With average student debt loads approaching CAD 25 000, this credit is ineffective in addressing the ongoing crisis of student debt.

On the whole, tax credits are “back-ended” measures and do little to improve access for the most economically disadvantaged groups. Tax credits require students to pay money “up front” in order to (maybe) have it refunded at some point in the future. As a policy, education tax credits do nothing to address the initial financial obstacles that prevent low and lower middle-income students from attending higher education. Thus, education tax credits are most likely to benefit those who require little assistance with high tuition fees.

A recent study by Harvard University professor Dr. Bridget Long found that this was precisely the outcome of education tax credits introduced in the United States: “[a]lthough one goal of the tax credits was to increase access to higher education, this study found no evidence of increased postsecondary enrolment among eligible students”.⁸ Long’s study also found that the education tax credit measures introduced in the United States appear to have provided state governments with an incentive to raise tuition fees at public institutions.⁹

The challenge for the Canadian government, as it is for most OECD countries, is how to best measure the success of programs designed to reduce social inequity. The point of my argument is to suggest that the more the cost of education is borne by the individual the more expensive and elusive equality of opportunity will become. In addition to increasing the up-front cost of education, high user fees also create the need for programs that blunt the up front cost. Higher tuition fees mean higher costs for student loan programs in the form of in-study interest payments and limited remission

upon graduation. In addition, higher fees also spur a cottage industry of expensive tax policy that does nothing to promote “front end” access for low-income families. While Canadian policymakers retain a rhetorical commitment to promoting access among low-income citizens, most of the more expensive new programs only ameliorate the cost for those lucky enough to access the system in the first place. If this trend continues scarce financial resources will be drawn away from the struggle to reduce the economic inequity that defines Canadian universities. In addition to drawing down on valuable financial capital, we also run the risk of widening the gap between those energized by the hope of a post-secondary education and those consigned to the economic and social margins.

The author:

Dr. Michael Conlon
 Director of Research
 Canadian Federation of Students
 720 Spading Avenue – Suite 201
 Metcalfe Street – Bureau No. 500 – 5th Floor
 Toronto, Ontario M5S 2I9
 Canada
 E-mail: Research@cfs-fcee.ca

Notes

1. Department of Finance Canada, *Tax Expenditures and Evaluations 2001*.
2. The education amount has risen from \$80 per month to \$400 a month since 1996, but the actual credit is calculated by multiplying the total of the education and the tuition fees amount by the lowest federal tax rate (16% for 2001 and 2002, and 17% on earlier returns).
3. The most recent year for which interim statistics are presently available.
4. Canada Customs and Revenue Agency preliminary figures
5. Department of Finance Canada, *Tax Expenditures and Evaluations 2001*.
6. Department of Finance Canada, *Tax Expenditures and Evaluations 2001*.
7. Department of Finance Canada, *Tax Expenditures and Evaluations 2001*
8. Bridget Terry Long “The Impact of Federal Tax Credits for Higher Education Expenses”, Prepared for the NBER Volume and Conference: College Decisions: How Students Actually Make Them and How They Could. Harvard University August 2, 2002.
9. Bridget Terry Long “The Impact of Federal Tax Credits for Higher Education Expenses.”

Evaluation of the Competence Reform in Norway: Access to Higher Education Based on Non-formal Learning¹

by

Vibeke Opheim and Håvard Helland

NIFU STEP (Studies in Innovation, Research and Education),
Norway

From the start of the 2001-2002 academic year, people who had not completed secondary school were able to enter higher education based on documented non-formal learning, realkompetanse. Based on interviews with key personnel at selected universities and university colleges, and on quantitative data from the applicant register, this article presents results from an evaluation of this reform in Norwegian higher education. The evaluation indicates that the reform, by and large, works according to the lawmakers' intentions in providing a second chance for learners not usually linked with higher education. Still, findings suggest considerable variations in how the universities and university colleges have adjusted to the reform. Geographical location and supply of students are factors contributing to the institutions' attitude to the reform. University colleges in rural areas with a low number of applicants, in general, react more positively to the reform and it seems to be easier for applicants to be assessed as qualified for studies, in such institutions.

Introduction and background

Though Norway in general has a highly educated population, research early in the 1990s gave rise to concerns about the level of competence, especially in knowledge-based industries, and about the potential for flexibility and professional renewal among adults in a rapidly changing vocational landscape. On this background, the Competence Reform was initiated by The Norwegian Parliament (*Stortinget*) in 1999. The aim was to establish “a national system for documentation and appreciation of adults’ non-formal and informal competence, with legitimacy in both the labour market and the educational system” (VOX, 2002, p. 5). The purpose of this reform is to heighten the valuation and utilisation of the working population’s total competence (included the informal competence), and in that way to meet the needs for competence and skills of society, the workplace and individuals. Several measures have been launched to reduce the structural and economic barriers to adult learning by encouraging a co-operation between employers, employees and the government. The reform is still in progress in various initiatives and projects.

As part of the Competence Reform the rules of access to higher education have been changed. The Act relating to universities and university colleges has been amended so that applicants who are at least 25 years of age do not need to meet the requirement for general study competence to apply for studies at universities or university colleges, but can be accepted on the basis of *realkompetanse*.² For higher education, this reform entails a considerable potential for an efficiency increase, in the fact that well qualified adults, who have not completed secondary school, no longer have to “waste time” in secondary education. The new law came into effect in the 2001-2002 academic year. The individual institutions determine whether applicants are sufficiently qualified to study the relevant courses. If the applicant is accepted and passes an examination for a course lasting a minimum of one year, this will provide formal entrance qualifications. *Realkompetanse* may also allow a shortening of the study period, or exemption from examinations or tests.

Norwegian universities and university colleges are obliged to undertake an individual assessment of whether the applicants’ *realkompetanse* is sufficient for them to follow the desired course of study (Pettersen, 2003). Naturally, the requirements for different studies will vary. For example, it is more important to master some basic mathematics to study engineering than

to study for pre-school teaching. Similarly, experience with taking care of one's own children, is more relevant for pre-school teaching studies than for engineering studies. The assessments are, thus, supposed to be conducted locally (on every university and college) and individually (for each applicant). The universities and university colleges are therefore supposed to develop guidelines for the methods and criteria of assessment, and define concretely the type of competence that should be expected from qualified applicants.

The application process consists of two stages. First, the institution assesses whether or not the applicant is qualified for the study in question. Second, the applicants are ranked, and if the number of applicants exceeds the number of places available, admission is offered to the ones ranked highest. The institutions are not allowed to use special quotas for the applicants with *realkompetanse*, the ranking of these applicants are therefore supposed to be merged with those of the ordinary applicants. This ranking and merging are supposed to be based on discretionary assessments and rough appraisals.

Geographically, Norway is situated in the upper north corner of Europe with a population of approximately 4.5 million people. The population density is only 14 per km², one of the lowest among the OECD countries. Ensuring equal opportunity for education for all, whether living in urban or rural parts of the country, is a central goal of the Norwegian educational policy. The policy has been the foundation for developing a decentralised educational system, with a distribution of higher education institutions in all parts of the country. As a result, each of the 19 counties of Norway has a university college. In addition, the four universities of Norway are situated in four different regions of the country; in the east, west, north, and in mid-Norway. However, the distribution of potential students is not equal, and while some of the institutions have a high supply of students, others face a bigger challenge competing for students. One of the issues discussed in this paper is to what extent supply of students and geographical location are connected with how the institutions have adapted to the reform.

Competence and lifelong learning are the main overall themes of the Nordic Council of Ministers' strategy for education and research cooperation in 2000-2004. Thus, documentation and validation of adults' *realkompetanse* is a highly central issue in all the Nordic countries. This matter is also given considerable attention in the EU discussion on educational policy (Pettersen, 2003). Sharing Norway's experience in working to include applicants with *realkompetanse* in higher education may be of interest outside the national borders. In this paper we discuss the effect of the *realkompetanse* reform from two perspectives: the higher education institutions and the individual student.

This article is organised in two separate sections that present the results from an evaluation of the experiences of the changes in the rules of access to higher education. First, we study how the universities and university colleges have adapted to this reform so far. Second, we analyse the differences between the *realkompetanse*-applicants and other groups of applicants, and we pose the question “who are the new students seeking entry to higher education based on non-formal learning?” The article concludes with a discussion of the main findings.

How have the universities and university colleges adapted to the reform?

The study of the different institutions' adaptation to the reform is based on document analysis and interviews with key personnel at selected universities and university colleges. The data contain local guidelines from 57 of the 70 Norwegian higher education institutions, and interviews of 14 persons at 9 educational institutions, both faculty and staff. The 9 institutions were selected with the purpose of obtaining a wider range of representation regarding size, geographical location, private or public ownership, whether or not the institution is part of UCAS (Universities and Colleges Admission Service) and the institution's composition of fields of study. We conducted interviews at Finnmark University College, Oslo University College, Sør-Trøndelag University College, Norwegian School of Management (BI), Norwegian Lutheran Hospital and College, The University of Oslo, Nesna University College, Stord/Haugesund University College and The Norwegian University of Science and Technology.

By and large, the reform works according to the lawmakers' intentions in providing a second chance for learners not usually linked with higher education. Most educational institutions have taken the reform very seriously, and have done a considerable amount of work in adapting to it. Most institutions have worked out detailed guidelines for the assessment of *realkompetanse*, and they put a considerable amount of working hours in processing the applications. The persons we interviewed, who are working with the assessment and application processing, all claimed to be very concerned with being as fair and as accurate as possible. However, our study also displayed some important challenges facing the future practitioners and developers of the law and guidelines. In the following, we will sketch some of these challenges.

Firstly, we found considerable differences between different educational institutions with regards to the requirements for being assessed as qualified. Our findings suggest variations in how the different universities and university colleges view the assessment of *realkompetanse* applicants. Briefly,

we can distinguish between two main types of attitude towards the assessment of *realkompetanse*. On the one hand, there is the attitude which says “we want to give as many as possible a chance to pursue higher education studies”, and with this attitude it is fairly easy to be assessed as qualified for studies. On the other hand, we found the attitude that “it is wrong to pull the wool over the applicants’ eyes, by offering admission to people who do not have sufficient knowledge to complete a higher education”. Where the persons assessing the applicants have this attitude, it is much harder to be considered qualified. Our study suggests that there is a connection between geographical location and attitude to the assessment of *realkompetanse*. University colleges in rural areas with a low number of applicants are, in general, those that react the most positively to the reform and it seems to be relatively easier for applicants to be assessed as qualified for studies, in such institutions, than in universities and university colleges in urban areas with many qualified applicants. The personnel we interviewed at Finnmark University College (in the northern part of Norway) for example told us that the number of applicants had decreased so much since the mid-nineties that the *realkompetanse* applicants were vital to the institution’s survival. On the other hand, our interviewees at institutions in urban areas, with a high number of applicants, were somewhat more critical toward the reform, and their admission requirements were higher.

This is not very surprising, nor is it necessarily a problem. However, it may be a problem if the assessments of *realkompetanse* are regarded as arbitrary and unfair. As mentioned above, the reform implies then use of individuals’ discretionary assessments and such assessments will necessarily lead to some variation, because individuals perceive things differently. However, in order to avoid being perceived as unfair, the educational authorities might benefit from trying to make the assessments at the different educational institutions more equal than they are today. Several of the people we interviewed spoke in favour of a more uniform practice. This can be accomplished in several ways, and here we will focus only on two of them. A lot will probably be accomplished simply by establishing systems for cooperation and exchange of experiences between the educational institutions. If the Norwegian Ministry of Education and Research Affairs arranged for the establishment of such systems, the assessments would probably be more uniform across the country. One way to accomplish this could be to arrange seminars for the personnel involved in the application processing on a regular basis for representatives from the different educational institutions to evaluate and discuss current practices. Another way of accomplishing a nationally more uniform assessment of *realkompetanse* could be to move the decisions from the local level to some central agency (either in the Ministry itself or in an agency under the Ministry’s control such

as UCAS). This would, however, lead to radical incompatibility with some of the original intentions behind the reform.

Secondly, our study revealed that not all elements in the reform are implemented. For example, the institutions have not instituted any arrangements to grant exemption from parts of a study, based on relevant *realkompetanse*, nor does it seem likely that they are going to. The reason our informants gave was that *realkompetanse* can never be good enough to replace any part of a higher education. Another field, in which the current practice is somewhat at odds with the intentions of the reform, is the joint ranking, and comparison, of applicants with *realkompetanse* and applicants fulfilling the general study requirements. As mentioned, the educational institutions are not supposed to operate with special quotas for the applicants with *realkompetanse*, and are supposed to merge the rankings of the two groups of applicants. The practice at several of the institutions of higher education is somewhat at odds with this part of the law. In several cases there is no real comparison of the two groups of applicants, and one decides how many applicants with *realkompetanse* shall be offered admission after considering the ordinary applicants. A third element of the reform, where there is inconsistency between the intentions of the reform and current practice, is the notion that informal competence can completely replace formal, school-based, competence. Most local guidelines request that some formal secondary education be completed before entering higher education. Most educational institutions require at least “knowledge similar to” specified courses in secondary education in Norwegian, English and mathematics.

Such inconsistencies between theory and practice are not necessarily problematic, and may be regarded as mere practical adjustments of the theory. The reason why institutions do not make a joint ranking of the two applicant groups may be that such a ranking is impossible in practice. However, such inconsistencies may be considered problematic if they are large. A possible reason why the institutions prefer that competence be documented in the form of some passed courses in secondary education could be that this is a far easier, and hence cheaper, way to assess the individuals' competence. When there is little time available, it is sensible to find as manageable and standardised criteria as possible. The same line of thinking applies to the use of quotas *versus* individual discretionary assessments. If more time were available for the application processing, the institutions would perhaps live up to the intentions of the reform to an even greater extent. In such a hypothetical case, they could also include other criteria of assessment and forms of documentation than the ones on paper, e.g. interviews or specially designed tests. On the other hand, it is quite possible that the outcome of such a time-consuming assessment process would be very similar to the outcome

of today's process. It is not unlikely that the same applicants would be offered admission also after such a more thorough assessment.

The academic "quality" of the applicants with *realkompetanse* is a third challenge facing the future practitioners of this reform. Several of our interviewees stated that the academic standard of the applicants have decreased just during the few years the reform has been in effect. Our knowledge on this question is limited to the impression of our interviewees, but to the extent that their impression is correct this may pose a problem in the long run. If it turns out that the academic standard of the *realkompetanse* – students are considerably lower than that of regular students (with lower throughput and poorer grades), the support for the reform may be crumbling, however strong it is today.

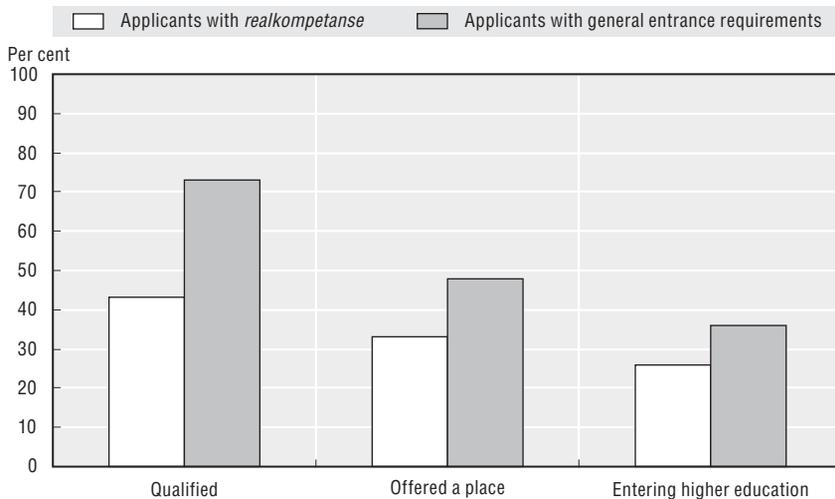
Who are the new students seeking entry to higher education based on non-formal learning?

Our main focus, in this second part of the evaluation, is to analyse the differences between the *realkompetanse* – applicants and other groups of applicants. The main question in this part is: What groups of students have applied for higher education on the basis of *realkompetanse*? As one of the criteria to apply with *realkompetanse* is to be at least 25 years old, we know that these new students in general are older than the average student. But to what extent do they differ from other students in other aspects? In this part we will compare the two groups of applicants according to distribution of gender, region of residence,³ country of origin, language of origin and choice of study programme in higher education.⁴

This part of the evaluation is based on analysis of data from the centralised application processing centre called "Universities and Colleges Admission Service" (UCAS)⁵ (Norwegian term: *Samordna opptak*). Most applications to undergraduate studies at Norwegian universities and university colleges are processed through the UCAS. Our data concern of all applicants to undergraduate studies at Norwegian universities and university colleges through UCAS in the spring 2001 and the spring 2002, that is, all the public university colleges, the four Norwegian universities and some private colleges. In 2001 and 2002, UCAS processed the applications for 47 institutions (out of the Norwegian total of 70 institutions of higher education). The data contain information on 77 384 applicants in 2001, and 83 244 applicants in 2002. In addition to demographic characteristics, the data also consist of information about the application and application processing (such as which studies one has applied for, whether or not one is qualified for the study in question, to which study one has been offered admission, and whether or not one has accepted the offer).

Nearly two thirds of the applicants drop-out during the application process. There are several drop-out points during the process. Some applicants are not considered qualified for any of the study programmes they have applied for, others are qualified but do not have the sufficient grade level or sufficient quality of non-formal learning to pass the entry levels. Then there is a group of applicants who are offered a place at a study programme but who decide not to take the place. Here we focus on the applicants who entered a study programme in higher education. The drop-out rate during the application process among applicants with *realkompetanse* and applicants with general entrance requirements is illustrated in Figure 1.

Figure 1. **Share of all applicants with *realkompetanse* and applicants with general entrance requirements**



Source: "Universities and Colleges Admission Service" (UCAS) 2002.

While about 70% of the applicants with general entrance requirements were considered qualified for the study of their first choice, the rate was only 40% among the applicants with *realkompetanse*. About half of the applicants with general entrance requirements were offered a place at the study programme of their first choice, whereas the rate was only 30% among the applicants with *realkompetanse*. Furthermore, we see that 36% of the applicants with general entrance requirements showed up at the study programme of their first choice, while the rate was 24% among the applicants with *realkompetanse*. Thus the drop-out during the application process indicates that applicants with *realkompetanse* have a higher drop-out rate than other applicants, and that a lower proportion is considered qualified.

Table 1 displays the demographical characteristics of applicants with *realkompetanse* and applicants with general entrance requirements who showed up for studies in the autumn 2001 and 2002. We are here studying the total group of applicants who showed up for studies, both those who were accepted at their first choice of study programme and those who were accepted at studies of lower priority. The table shows how the two groups of applicants differ according to gender, citizenship, first language, county of residence and mean age.

Table 1. Demographical characteristics of applicants with *realkompetanse* and applicants with general entrance requirements who showed up for studies in the autumn 2001 and 2002

Per cent

	2001		2002	
	Applicants with <i>realkompetanse</i>	Other applicants	Applicants with <i>realkompetanse</i>	Other applicants
Gender (women)	70	62	72	63
Citizenship (non-Norwegian citizenship)	5	3	5	3
First language (other than Norwegian)	7	4	7	5
County of residence:				
Oslo and central Norway	18	18	19	19
Eastern Norway	25	26	26	25
Western Norway	27	35	27	35
Mid-Norway	7	11	9	10
Northern Norway	21	11	20	11
Outside Norway	0.3	0.3	0.0	0.2
Age (mean)	37	24	35	23
Total (N)	1 778	34 436	1 693	35 788

Source: "Universities and Colleges Admission Service" (UCAS) 2001 and 2002.

The table confirms the higher mean age among applicants with *realkompetanse* compared to other applicants; 37 against 24 among the applicants in 2001 and 35 against 23 in 2002. The table shows a majority of women in both groups, and especially among the applicants with *realkompetanse*. Here the percentage of women is 70% in 2001 and 72% in 2002. Among the applicants with general entrance requirements the proportion of women is around 63% both years.

Applicants with a foreign citizenship and a foreign first language represent a small share of the student population, which is natural considering the low share among the total population. Still, we find slightly higher proportions of students with a foreign citizenship or a foreign first language among the applicants with *realkompetanse* than among the applicants with general entrance requirements, in both 2001 and 2002. This is not quite as expected. On the one hand, one could expect that immigrants

with education from their home countries that had not been accepted as qualifying for entry into higher education would use the opportunity of the new reform to apply for higher education based on non-formal learning. On the other hand, it could be that the reform, which is a new measure, is less known among persons with immigrant backgrounds. If this were the case, we would expect a low share of the applicants with *realkompetanse* among the applicants with a foreign citizenship or a foreign first language. Table 1 indicates that this is not the case. However, we must emphasise that information on citizenship and first language is subjectively provided by the applicants. Some may not have answered the questions of citizenship and first language in the application form. In addition, the group of applicants with foreign backgrounds consists of applicants of all nationalities other than Norwegian. This includes people from Sweden and Denmark as well as people from countries farther away from Norway. Further research is necessary to determine how well known the reform is among persons with minority backgrounds.

Table 1 also shows that applicants with *realkompetanse* have somewhat different geographical origin than the applicants with general entrance requirements. Western-Norway and also Mid-Norway have a slightly lower share of applicants with *realkompetanse* compared to other applicants, in total 34 against 46% in 2001. On the other hand, Northern Norway has a higher share of the applicants with *realkompetanse* compared to other applicants, 21% against 11%. The geographical distribution of applicants may be related to discussions in the previous part of the article. Although everyone we interviewed expressed a positive attitude towards the content and goals of the reform, some pointed out the complications in the validation process for applicants with *realkompetanse* and, therefore, the increased amount of work for the institutions. In general, institutions with a high supply of students expressed these concerns more than institutions with a low supply of students did, and institutions with a low supply of students had a more positive attitude towards the reform, as the applicants with *realkompetanse* represented an increase in the student supply.

While Table 1 showed the geographical background of the applicants, Table 2 shows where the qualified applicants showed up for studies. Many applicants choose to study in another region than their home region, and many start their studies at one of the four universities, which have a larger capacity and offer a broader selection of study programmes than the university colleges do. However, when comparing patterns of enrolment students with *realkompetanse* seem to be less attracted to the universities and more locally attached. A high proportion enrolls in the local university college. Among students with *realkompetanse*, 19% enrolled in a higher education institution in Northern Norway. This share was only 8% and 7% among other students in 2001 and 2002 respectively. Also in Eastern Norway the relative share

Table 2. Applicants with *realkompetanse* and applicants with general entrance requirements by county where they showed up for studies in the autumn 2001 and 2002

	Per cent			
	2001		2002	
	Applicants with <i>realkompetanse</i>	Other applicants	Applicants with <i>realkompetanse</i>	Other applicants
Oslo and central Norway	24	29	24	30
Eastern Norway	23	14	23	13
Western Norway	26	31	25	32
Mid-Norway	8	19	9	18
Northern Norway	19	8	19	7
Total (N)	1 778	34 436	1 693	35 788

Source: "Universities and Colleges Admission Service" (UCAS) 2001 and 2002.

among students with *realkompetanse* was higher than the share among other students, 23% against 14%. In the three other regions, where the three largest universities are located, there were lower shares of students with *realkompetanse*.

The geographical distribution of students with *realkompetanse* must be seen in relation to who these new learners are, and to their choice of study. As previously mentioned, the majority of students with *realkompetanse* consist of women in their mid-thirties. It is probable that this is a group where a majority of persons have a strong connection with their region of residence, due to family obligations, employment or other factors. But what do they want to study? This question is answered in Table 3, which compares the choices of study of applicants with *realkompetanse* and other applicants.

Table 3. Applicants with *realkompetanse* and applicants with general entrance requirements who showed up for studies in the autumn 2001 and 2002, by field of study

	Per cent			
	2001		2002	
	Applicants with <i>realkompetanse</i>	Other applicants	Applicants with <i>realkompetanse</i>	Other applicants
Health and Social Care studies	41	15	42	14
Educational studies	23	10	23	10
Business and Administration	6	7	5	6
Science and Technology	5	11	5	10
Other	25	57	25	59
Total (N)	1 778	34 436	1 693	35 788

Source: "Universities and Colleges Admission Service" (UCAS) 2001 and 2002.

Table 3 shows considerable differences between applicants with *realkompetanse* and other applicants when it comes to choice of study. The majority of applicants with *realkompetanse* apply for studies in the field of health and social care and in education. Almost two thirds of the accepted and enrolled applicants with *realkompetanse* showed up in a study programme within one of these fields, and more than 40% entered health and social care studies. In comparison, only 25% of the other applicants entered these two fields of study. Almost 60% of the other applicants enter “other” fields of studies. These are mainly university studies and long term professional studies (medicine, law, social science, etc.). In general applicants with *realkompetanse* seem to be enrolled in short term study-programmes, often leading to a profession within the public sector (nurse, teacher, etc.).

Discussion

The Competence Reform has initiated changes in the system of higher education affecting both students and institutions. The reform allowing students to enter higher education on the basis of *realkompetanse* has provided a second chance for a group of learners not usually linked with higher education. Still, findings suggest considerable variations in how the universities and university colleges have adjusted to the reform. Geographical location and supply of students are factors contributing to the institutions attitude toward the reform. University colleges in rural areas with a low numbers of applicants are, in general, the most positive toward the reform and it seems to be easier for applicants to be assessed as qualified for studies in such institutions. That the entry barriers differ according to the supply of students, in the sense that it is more difficult to enter the most popular institutions, seems reasonable. Nevertheless, the requirement for being assessed as qualified for studies should be equal in all institutions.

In addition to being related to variations in the supply of students the findings may be related to three other issues: local differences in average level of education, local differences in rate of unemployment, and the structure of the labour market.

The level of education in Northern Norway is in general slightly lower compared to the country as a whole (Statistics Norway, 2003).⁶ This may imply a higher need – or potential – for higher education in the adult population in this part of the country and thus a higher number of adults who could benefit from the new opportunity to enter higher education provided by the reform. Another explanation for the geographical variations indicated by the findings involves the local differences in rate of unemployment. In general Norway has a low rate of unemployment.⁷ However, in the period covered by the analysis the Northern region is recognized with a somewhat higher unemployment

rate compared to other regions (Statistics Norway, 2003). Taking into account that education may reduce the risk of being unemployed a high level of unemployment may increase the benefit expected of education. In addition the rate of unemployment may reduce the relative cost of education. While one of the costs of education for the individual is lack of income during time of studies, the relative cost of education is reduced if the alternative is being unemployed.

Turning to the demographical differences between applicants with *realkompetanse* and other applicants, this could be related to the structure of the labour market. Is it purely a coincidence that a high share of the applicants with *realkompetanse* are women applying for studies within the field of health and social care and within education? Or could this be a result of the structures of the labour market and differences in the validation of formal qualifications between different sectors? In Norway as well as in a number of other OECD countries both health and social care services and the education sector have a high proportion of women employees. In addition they are primarily services within the public sector. The public sector is normally recognised as having more regulated systems for determining occupational status and salary compared to the private sector. Thus, it may be argued that formal qualifications are more important for determining occupational status and salary in the public sector than in the private sector and that obtaining or increasing one's individual formal qualifications may be more profitable among public sector employers.⁸ Following this line of reasoning our findings could indicate that the reform has increased the possibilities among low paid unskilled workers within the social care services and the education sector to obtain formal qualifications and thus to increase their salaries and occupational status. However, it is still too early to measure the full effects of the reform. To what extent the reform will have had these effects depends on both the achievement and progression of the students with *realkompetanse*, and on their transition from education and (back to) the labour market.

Evaluating how the universities and university colleges have adapted to this reform and studying what groups of new students are seeking entry to higher education based on *realkompetanse* are important both for gaining information of the effect of the policy changes as well as for improving future policy.

The authors:

Vibeke Opheim
Senior researcher
NIFU STEP
Wergelandsvn. 7
0167 Oslo
Norway
E-mail: vibeke.opheim@nifustep.no

Håvard Helland
Senior researcher
NIFU STEP
Wergelandsvn. 7
0167 Oslo
Norway
E-mail: haavard.helland@nifustep.no

Notes

1. This paper is based on a study previously published in Norwegian, see Helland and Opheim, 2004.
2. The Norwegian term *realkompetanse* include the total sum of a person's formal, non-formal and un-formal learning. The concept of *realkompetanse* includes all kinds of knowledge and skills acquired through education, in paid or unpaid work (e.g. caring for own children), through active participation in society, organisations or other voluntary work or through other channels. Thus, *realkompetanse* is a broader concept covering more than just non-formal learning.
3. The counties of Norway are divided into seven regions: Oslo and central Norway correspond to the counties of Akershus and Oslo. Eastern Norway corresponds to the counties of Hedmark, Oppland, Østfold, Buskerud, Vestfold and Telemark. Western Norway corresponds to the counties of Aust-Agder, Vest-Agder, Rogaland, Hordaland, Sogn and Fjordane and Møre and Romsdal. Mid-Norway corresponds to the counties of Sør-Trøndelag and Nord-Trøndelag. Northern Norway corresponds to the counties of Nordland, Troms and Finnmark.
4. The data do not contain any information on the applicants' social background.
5. Information on UCAS is available at www.samordnaopptak.no/english/.
6. In 2002 the percentage of persons who completed tertiary education was 22.3 for the whole country. In the Northern region the percentage was slightly lower; 19.3% (Statistics Norway, 2003).
7. In 2001 and 2002 the general unemployment rate was 3.6 and 3.9 (Statistics Norway 2003). In the Northern region the rate was slightly higher; 4.3-5.4%.
8. However, the monetary rate of return to education is higher in the private sector (Høgsnes 1999).

References

- Brandt, E. (2002), *Høgskolenes erfaringer med realkompetansestudenter fra forsøksordningene i 1999 og 2000*, NIFU skriftserie nr. 11/2002, Oslo: NIFU.
- Helland, H. and V. Opheim (2004), *Kartlegging av realkompetansereformen*, NIFU skriftserie nr 6/2004, Oslo: NIFU.
- Høgsnes, G. (1999), *Krone for Krone. Lønnsforhandlinger og – fordelinger*, Oslo: Ad Notam Gyldendal AS.
- KUF (1998), *Kompetansereformen*. St.meld. 42 (1998-1999), Government White Paper, Oslo: Ministry of Education, Research and Church Affairs.
- NOU (Norges Offentlige Utredninger – Official Norwegian Report) (1999), *Realkompetanse i høgre utdanning. Dokumentasjon av realkompetanse og etablering av kortere og tilpassede studieløp i høgre utdanning*, 1999:17.
- Opheim, V. (2003), *Borte bra, hjemme best? Om geografisk søkermobilitet, valg av utdanning og lærested blant søkere til høyere utdanning i år 2000*, NIFU skriftserie nr 2/2003, Oslo: NIFU.
- Ot.prp.nr.58 (1999-2000), *Om lov om endring i lov 12. mai 1995 nr. 22 om universiteter og høyskoler*, Government bill to the Parliament, Oslo: Ministry of Education, Research and Church Affairs.

- Pettersen, B. (2003), "Validation of Non-formal, Informal and Formal Competence in Norway", in *Golden Riches – Nordic Adult Learning 1/2003*, Nordiska Ministerrådet.
- Rundskriv (circular) F-055-00 from UFD (Ministry of education and Research) (2000), *Endring av lov om universiteter og høyskoler om opptak, privatistadgang og fritak for del av studium på grunnlag av realkompetanse, samt fastlegging av undervisningsterminer*, Oslo: UFD.
- Rundskriv (circular) F-053-01 from UFD (Ministry of education and Research) (2001), *Forskrift om rangering av søkere til grunnutdanning ved universiteter og høyskoler – oppdatering*. Oslo: UFD.
- UCAS – Samordna opptak (2006), www.samordnaopptak.no/english/.
- Statistics Norway (2001), *Statistisk årbok 2001*, Oslo – Kongsvinger: Statistics Norway.
- Statistics Norway (2003), *Statistisk årbok 2003*, Oslo – Kongsvinger: Statistics Norway.
- VOX (Norwegian Institute for Adult Education) (2002), *Realkompetanseprosjektet 1999-2002 – i mål eller på startstreken?* Sluttrapport, Oslo: VOX.

Where are the Boys? Gender Imbalance in Higher Education

by

Fred Evers, John Livernois and Maureen Mancuso
University of Guelph, Canada

The gender breakdown in higher education in Canada and other western countries has switched from an imbalance in favour of men to an imbalance in favour of women over the last two decades. Programs to attract women into higher education have worked very well. At the University of Guelph for example, 70% of the students are women. Should educators be concerned about this phenomenon? Are there short- and long-term negative effects of gender imbalance? If so, what can and should educators do about the imbalance? Should programs to attract men into higher education be implemented? What accessibility steps can be taken to create a gender balance in higher education? This article explores the changes in the gender profile at universities and colleges in Canada, the United States, and other countries. Potential economic, social, and political causes and effects of gender imbalance are proposed. Accessibility techniques that could be used to create gender balance in university and college programs are explored.

There has been a dramatic shift in the number and proportion of women in post-secondary education in Canada and other countries. As social scientists and educators we are interested in explaining this phenomenon and its short- and long-term impact. This is an access and equity issue for women, generally a positive one, with major growth in participation in many fields. But it is primarily a negative situation for men, with gradual decreases in the last few years in participation in most fields.

Programs to attract women into higher education have worked very well in most fields over the last two decades. Women are now more likely to attend college and university than men. This article explores the changes in the gender profile at universities and colleges in Canada and other countries. In addition, we propose some potential economic, social, and political causes and effects of gender imbalance. Accessibility techniques that could be used to create gender balance in university and college programs are also explored.

We pose five research questions to guide our discussion:

1. Should educators be concerned about this phenomenon?
2. Are there short- and long-term negative effects of gender imbalance?
3. If so, what can and should educators do about the imbalance?
4. Should programs to attract men into higher education be implemented?
5. What accessibility measures can be taken to create a gender balance in higher education?

It is important to note that we do not have definitive answers for our questions. The gender balance is a complex issue with many variables: isolating the primary factors is not easily accomplished. The student population should reflect the diversity of society, and no individual with the desire and ability to excel in higher education should feel that he or she is not welcome because of gender, race, or other characteristic. A knowledgeable and skilled labour force is the crucial factor for organisations and countries in the 21st century.

Enrolment and attainment in higher education

Locally

We will start locally and end globally. The University of Guelph (www.uoguelph.ca) is a mid-size comprehensive university in southwestern Ontario with over 16 600 undergraduate and graduate students. The University of Guelph was ranked as the top comprehensive university in the *Maclean's Magazine*

(Johnston, 2003) annual ranking of Canadian universities. Overall there are more women than men enrolled at the University of Guelph (61%) and there are more women than men in all fields except business, engineering, and physical sciences (Table 1). Admission to Ontario universities is based almost exclusively on high school grades.

Table 1. University of Guelph – full-time enrolment by field of study and gender

Field of study	Total	Male	Female	Percentage female
Arts/science general	783	242	541	69
Education	873	243	630	72
Fine and applied arts	531	126	405	76
Humanities	1 286	420	866	67
Social sciences	4 299	1 466	2 833	66
Business	1 774	986	788	44
Agricultural/biological sciences	3 219	917	2 302	72
Landscape	149	65	84	56
Engineering	825	598	227	28
Veterinary medicine	422	85	337	80
Physical sciences	1 182	822	360	30
Total	15 343	5 970	9 373	61

Source: Based on 2003 data, University of Guelph.

The University of Guelph has partnered with Humber College to build a new institution – the University of Guelph-Humber (www.guelphhumber.ca). We have just completed (in 2004) the second year of classes, so the number of students does not represent what G-H can accommodate. Rather than academic departments, G-H is built on programs which draw on the strengths of both the University of Guelph and Humber College. Each of the programs also relates to professional organisations. Overall, the University of Guelph-Humber is balanced in terms of gender with an enrolment of 53% women. However, within the programs (Table 2), the gender imbalance persists with the Distributed Computing program attracting primarily men (92%) and Early Childhood Studies attracting women (96%).

Canada

In Table 3 we present Canadian university and college enrolments by gender. Over the period 1994 to 1999 the number of women has steadily increased in both universities and colleges. The number of men has declined in universities, but increased in colleges. The proportion of female students has increased for both universities and colleges. As of 1999, women made up 55% of the university enrolment and 54% of the college enrolment.

Table 2. **University of Guelph-Humber – full-time enrolment by program and gender**

Program	Total	Male	Female	Percentage female
Distributed computing	98	90	8	8
Media studies	185	55	130	70
Early childhood services	24	1	23	96
Family and community social services	38	8	30	79
Justice studies	84	36	48	57
Business	443	224	219	49
Total	872	414	458	53

Source: Based on 2003 data, University of Guelph.

Table 3. **Canadian university and college enrolments by year and gender**

	Total		Male		Female		Percentage female	
	U	C	U	C	U	C	U	C
1994-95	575 713	379 961	270 069	178 773	305 644	201 188	53	53
1995-96	573 194	391 282	265 436	182 910	307 758	208 372	54	53
1996-97	573 635	397 308	263 904	185 653	309 731	211 655	54	53
1997-98	573 099	398 643	260 436	185 495	312 663	213 148	55	53
1998-99	580 376	403 516	260 901	186 787	319 475	216 729	55	54

U = University.

C = Community College.

Source: Based on Statistics Canada, CANSIM, Cross-classified Tables 00580701, 00580702 and Statistics Canada, Catalogue No. 81-229.

We can also look at the enrolment of Canadian students by province (Table 4). In all ten Canadian provinces the proportion of female students in university is higher than male students. It is interesting to note that for the Atlantic provinces there are more men than women in colleges. The college systems are different across the provinces, but it may also be due to a perception that college programs are more geared to male students.

The total numbers of individuals with university and college qualifications (e.g., certificates, diplomas, degrees) granted per field of study are presented in Table 5 for 1998-99. Overall, 58% of the qualifications by universities and by colleges were awarded to women. Engineering and mathematics/physical sciences are made up primarily of men. (In the national data, business is included with social science.)

University level educational attainment is presented for the total Canadian population in Table 6. The higher number of degrees awarded in the past to men is countered by the higher numbers going to women in more recent years. The overall numbers for men and women are almost equal. The pattern is the same in all ten Canadian provinces.

Table 4. **Canadian university and college full-time enrolment by province and gender**

Province	Total		Male		Female		Percentage female	
	U	C	U	C	U	C	U	C
Newfoundland and Labrador	13 115	5 973	5 553	3 483	7 562	2 490	58	42
Prince Edward Island	2 470	1 899	950	1 004	1 520	895	62	47
Nova Scotia	30 027	7 039	12 845	3 672	17 182	3 367	57	48
New Brunswick	18 529	5 221	8 251	2 895	10 278	2 326	55	45
Quebec	134 162	164 469	59 363	72 966	74 799	91 503	56	56
Ontario	229 985	142 341	105 119	68 914	124 866	73 427	54	52
Manitoba	20 883	4 181	9 380	1 984	11 503	2 197	55	53
Saskatchewan	23 656	2 740	10 499	1 054	13 157	1 686	56	62
Alberta	53 510	31 999	24 302	13 711	29 208	18 288	55	57
British Columbia	54 039	37 127	24 689	16 937	29 400	20 190	54	54
Total	580 376	402 989	260 901	186 620	319 475	216 369	55	54

U = University.

C = College. Note: Includes related institutions such as hospital schools, agricultural colleges and other specialized colleges.

Source: Based on 1999 data, Statistics Canada, CANSIM, cross-classified Tables 00580701, 00580702, and 1998-99 data from Statistics Canada Catalogue No. 81-229-X1B.

Internationally

In most OECD countries in recent years, women are more likely than men to receive a tertiary-level education. For example, the percentages of men and women in 1991 that had graduated from a tertiary education institution were about equal. However, by 2001, more women (about 29% of women in the 25-34 year-old age group) than men (about 26% of men in the same age group) had graduated from a tertiary institution. In Canada, 56% of women in this age group *versus* only 45% of men had achieved a tertiary degree in 2001 (OECD, 2003, Table A2.4).

The final two tables include the G7 countries plus Australia. In Australia, the United States, France, the United Kingdom, Italy and Canada, in 2001, the percentage of enrolments for female students is above 50%. Germany (46% female) and Japan (36%) show a different enrolment picture (Table 7).

Percentage of female graduates by field of study is presented in Table 8. Not all of the countries use the same field of study categories, so some percentages are totals for three or four fields (please see the footnote to Table 8). Looking across the countries by row, all of the countries except Australia have far more women than men in arts/science. Education, fine and applied arts, and humanities attract far more women than men in all eight countries. Social sciences, which includes business and commerce, is higher in all of the

Table 5. **Canadian university and college qualifications granted by field of study and gender**

Field of study	Total		Male		Female		Percentage female	
	U	C	U	C	U	C	U	C
Arts/science general	5 790	800	1 790	330	4 000	470	69	59
Education	26 765		7 740		19 025		71	
Fine and applied arts	5 200	7 815	1 740	3 240	3 460	4 575	67	59
Humanities	20 445	995	7 420	300	13 025	695	64	70
Social sciences business and commerce	66 990	41 415	28 300	11 745	38 690	29 670	58	72
Agricultural/biological sciences	12 535	4 795	4 810	2 705	7 725	2 090	62	44
Engineering	12 685	21 255	9 905	16 965	2 780	4 290	22	20
Health professions	12 705	10 980	3 295	1 745	9 410	9 235	74	84
Mathematics/physical sciences	10 460		7 200		3 260		31	
Total	173 575	88 055	72 200	37 030	101 375	51 025	58	58

U = University. Note: Includes bachelor's and first professional degrees, undergraduate diplomas and certificates, other undergraduate qualifications, master's degrees, doctoral degrees, and graduate diplomas and certificates.

C = College. Note: Includes related institutions such as hospital schools, agricultural colleges and other specialized colleges.

Source: Based on 1998-99 data from Statistics Canada Centre for Educational Studies and Statistics Canada Catalogue No. 81-229-X1B.

Table 6. **Canadian university level educational attainment by province and gender**

Province	Total	Male	Female	Percentage female
Newfoundland and Labrador	39 970	18 770	21 200	53
Prince Edward Island	11 930	5 350	6 580	55
Nova Scotia	100 035	45 670	54 365	54
New Brunswick	64 805	29 225	35 580	55
Quebec	866 455	424 460	441 995	51
Ontario	1 528 670	764 100	764 570	50
Manitoba	112 395	53 920	58 475	52
Saskatchewan	87 010	39 950	47 060	54
Alberta	343 500	169 060	174 440	51
British Columbia	512 720	249 475	263 245	51
Total Canada	3 667 490	1 799 980	1 867 510	51

Source: Based on Statistics Canada, Census data, 2001.

countries except Australia. Agriculture/biological sciences has about equal numbers of men and women in France, United Kingdom, Japan, and Canada. Australia, United States, Germany, and Italy have a higher percentage of men in agriculture/biological sciences. A much higher proportion of men than women

Table 7. **University full-time enrolment by country and gender**

	Total	Male	Female	Percentage female
Australia	398 104	173 811	224 293	56
United States	6 532 489	3 026 158	3 506 331	54
France	1 436 793	648 666	788 127	55
Germany	1 766 734	952 684	814 050	46
United Kingdom	1 046 967	492 063	554 904	53
Japan	2 615 533	1 663 879	951 654	36
Italy	1 747 654	768 236	979 418	56
Canada	1 212 161	533 226	678 935	56

Source: Based on 2001 data, Organisation for Economic Co-operation and Development, Education database, www.oecd.org/home.

Table 8. **Percentage of female university graduates by field of study**

Field of study	Australia	United States	France	Germany	United Kingdom	Italy	Japan	Canada
Arts/science general	40	77 ¹	74 ²	67 ²	62 ²	80 ²	84 ¹	67
Education	73	77 ¹	69	79	72	80	84 ¹	71
Fine and applied arts	63	77 ¹	74 ²	67 ²	62 ²	80 ²	84 ¹	68
Humanities	68	77 ¹	74 ²	67 ²	62 ²	80 ²	84 ¹	64
Social sciences business and commerce	43	64	63	43	55	55	76	58
Agricultural/biological sciences	34	36	53	31	50	40	51	62
Engineering	12	21	19	16	18	27	16	24
Health professions	75	87	75	70	79	58	78	73
Mathematics/physical sciences	n.a.	40	42	31	42	55	51	32

1. USA and Japan: Data were available under a general heading of Humanities, Arts and Education.
2. France, Germany, UK and Italy: Data were available under a general heading of Humanities and Arts (Education was separate).

Source: Based on data from Eurostat, UOE, 2000 and 2001 data from the Organisation for Economic Co-Operation and Development, Education database.

are in engineering across all countries. Health professions is the opposite – higher proportions of women. And finally mathematics/physical sciences have a higher proportion of men than women in the United States, France, Germany, United Kingdom, and Canada. Interestingly, Italy and Japan have a higher proportion of women (55% and 51%) in mathematical/physical sciences.

Participation in higher education

Participation rate data are difficult to find and the methods and definitions vary across countries. The Canadian university participation rate (proportion of 18-24 year olds attending university) is slightly over 20% which

is about in the middle of the rates reported by OECD. The Canadian rate rose from 1979 to 1993 and has been roughly constant since then (Corak, Lipps and Zhao, 2003; Presidential Task Force on Accessibility, 2004). By comparison, participation rates for college continued rising throughout the entire period, though slowly.

The time path of the university participation rate is striking because it appears to have two separate components, a rising trend to 1993 and a flat trend after that. One could conjecture that the impact of rising tuition fees kicked in at about 1993 (by halting the rise in participation rate).

The university participation rate for women has grown much faster than that for men in recent decades and now exceeds the university participation rate for men (about 28% versus 19%). The university participation rate for men peaked in 1992 and has been declining since then. However, the college participation rate for men continued rising (though sporadically). The university participation rate for women continued to rise over the entire period (with one downward blip). The college participation rate for women rose until 1994, then fell in 1995 and has been fairly constant since then.

The rate of growth in part-time education in the period 1970-80 was also notable for women. This can probably be explained by the number of women who looked towards university to upgrade their skill levels while continuing to work, and especially for certain professions (*e.g.*, teaching), which provided their members with a period of grace to acquire degrees that were previously unnecessary for the field. In the 1990s, part-time enrolment began to decline for both genders.

Explaining the gender gap in tertiary education

In the previous section, we documented the gap between female and male participation in post-secondary education. In most OECD countries and for Canada, in particular, participation in post-secondary education by women has grown faster than for men and women now outnumber men in higher education.

A number of explanations have been suggested in the literature. The most important among these are the following.

Higher return to tertiary education for females

A number of studies have found that the financial returns associated with an investment in tertiary education is higher for females than it is for males (OECD, 2003; Jacob, 2002; Boothby and Rowe, 2002). One of the reasons for this is that the opportunities for well-paid employment for young people without a tertiary education (the so-called blue-collar jobs) are better for males than for females. As a result, the opportunity cost of attending university is higher for males than for females thereby making the return lower.

The evidence suggests that the financial return to tertiary education is not only higher now for women but has been rising in recent decades. This goes part way towards explaining the rise in female participation rates and the lagging-behind of male participation rates. However, we know of no evidence of declining returns for males and therefore there does not seem to be a simple economic explanation for the declines in participation rates for males that appears in some countries.

Higher cognitive skills

Differences between men and women in high school academic achievement (grades in particular) is likely one of the main causes of the trend towards a higher participation rate for women than men. However, uncovering the underlying causes for differences in academic achievement is more difficult. Evidence suggests that girls outperform boys in reading and writing but that boys outperform (marginally) girls in mathematics and science (Sommers, 2000). Thus, there is no evidence that one gender is inherently more or less academically able in cognitive terms.

Higher non-cognitive skills

The evidence is clearer that school-age girls have better non-cognitive skill than boys of similar age. For example, Sommers (2000) and Jacob (2002), citing Sommers (2001), argue that boys have more discipline problems, are more likely to be retained in grade and placed in special education, whereas girls are more able to pay attention in class, to work with others, to organize and keep track of homework and to seek help from others. These so-called non-cognitive skills increase the likelihood of getting good grades and, in turn, the likelihood of meeting the academic admission requirements for tertiary education.

Socialization

Sommers (2001) argues the drop in the male participation rate is due to inadequate attention, mentoring and encouragement academically in primary schools. Similarly Poe (2004) argues that the education system rewards the types of characteristics more commonly found in girls such as self-control, obedience and concentration (this is another form of the “non-cognitive skills” argument). Thirty years ago, teachers may have accommodated and managed the behaviour common in boys, but with increasing attention paid to girls in recent decades, boys have suffered. Boys, for example, make up three fourths of all children categorized as learning disabled.

Prisons, military (predominantly male)

Particularly in the United States, the higher rate of male participation in the military and prisons explains a substantial part of the gender gap in tertiary education. However, Jacobs (2001) finds that even after accounting for prisons and military participation, a gender gap remains in tertiary education.

Feminist revolution

The impact of the feminist revolution on the perceived opportunities for women during the 1970s and 1980s should not be underestimated. Women who might never have contemplated a career in the 1960s could do so with fewer barriers and more encouragement in the 1970s. In other words, culture and the shift in power relations between men and women are likely to have played a role in the demand for spaces by women in universities.

Jacob (2001) explores the relative importance quantitatively of some of these explanations for the gender gap that exists in the United States. He finds that over 90% of the gender gap in the United States in the 1990s can be explained by two factors alone: the combination of a higher return to education for females and higher non-cognitive skills for females. However, these results still beg the question of why the participation rates of males and females changed over time as much as they did. Presumably, the shifts in the socialization of boys and girls in primary and secondary school and the feminist revolution would be important and, indeed, not entirely independent, factors in determining the changes in the gender gap that we observe.

Labour market outcomes

What impacts have rising levels of education for women had on the relative earnings of men and women and the relative participation in the labour market?

According to O'Neill (2003), the participation rate of women in the labour force in the United States grew from about 20% in 1900 to 61% in 2000, not far behind the 75% rate for men. Fortin and Huberman (2002) present a similar picture for Canada but argue that these numbers pale by comparison to some countries in Europe such as Sweden where the female participation rate in the labour force was about 76% in 1996. Nevertheless, it is clear that female participation in labour markets grew enormously in the last century.

Along with these gains in participation in the labour force, the pay gap between males and females has been shrinking, though not nearly as quickly. In Canada in 1999, the ratio of female to male earnings was in the 84% to 91% range whereas it was in the upper 90% range in Sweden in 1999 (Fortin and Huberman, 2002).

Discussion of the earnings gap between men and women are fraught with potential difficulties and emotional arguments. Bias and discrimination against women by a historically male senior management cohort undoubtedly occurs, but is difficult to quantify directly. Labour economists argue that it is important to examine the effect of differences in earnings-determining characteristics between men and women. For example, differences in level of education, years of labour-market experience, and occupational choice are all important determinants of earnings. A typical finding is that about 50% of the earnings gap can be explained by differences in important earnings-determining characteristics between men and women. The remaining gap that cannot be explained is open to interpretation but is sometimes ascribed to discrimination.

O'Neill (2003) finds that, compared to 1979, US women in 2001 were more likely than men to be college graduates and almost as likely to receive a higher degree, and were entering occupations that require more job-specific skills than they used to but still less so than men. In fact, she finds that women and men in 2001 continued to choose occupations that were disproportionately male or female. For example, in 2001 women worked in occupations in which the proportion of females was close to 68% and men worked in occupations that were only 30% female.

O'Neill also finds a narrowing of the pay gap over this period and most of the narrowing is explained by the increase in years of work experience for women, though an experience gap still remains. Similarly, Goldin (1993) found that the earnings gap between men and women decreased substantially during the 1980s and suggests this was due primarily to increased skills experience and educational advancements among women.

Thus, rising levels of human capital among woman have contributed to the shrinking of the earnings gap between men and women. However, it may appear surprising that, despite the fact that more women now graduate with university degrees than men, women still earn less than men. This is due primarily to the fact that women continue to have fewer years of labour market experience – a major determinant of earnings – and the fact that it will take some time for the stock of human capital among women to catch up to the flow. An interesting question then is to ask how the earnings gap between men and women might respond if women continue to outperform men in terms of educational attainment. This question is addressed in Shannon and Kid (2001). They project that, by 2031, the improvements in women's skills relative to men's, especially in education attainment, will lead the pay gap to shrink, but only by about 22% to 37%. Hence, according to their results, a substantial pay gap will remain in spite of educational advances among women.

Conclusion

At the beginning of this paper we asked a number of questions. Reviewing the data and its implications, we can conclude that educators do indeed need to be concerned about this phenomenon. Both short- and long-term effects of gender imbalance are evident. Already, we have seen some college and university programs skew almost completely male or female. On a generational time scale, we foresee continuing economic and social consequences if the imbalance is not addressed. Some have argued that the continuing decline in the number of college-educated men will mean that women who expect to marry a man with similar educational background will face a “marriage squeeze” (Tyler, 2002, p. 3). Others focus on the loss of opportunities for social and economic growth if men continue to be under-educated relative to women on average.

As educators, we must work toward a gender balance in order to ensure that both men and women can fully participate in the knowledge society. This means continuing to encourage women to enter fields such as engineering and encouraging men to participate in higher education. Because preparation is so important to participation in tertiary education, other efforts need to be made at the primary and secondary levels. Some schools are experimenting with, say, all-boys and all-girls classes. Although this may seem like a step backwards, teachers report that both the boys and girls like the experience and that boys’ academic achievements have improved as a result. Reading material can be focused on the divergent interests, skills, and learning styles of boys and girls.

Educators at all levels need to ensure that boys and young men know that they can succeed in higher education and that a higher education can lead not only to earning more money, but also the potential of more interesting and meaningful work. And balancing efforts should be made within each discipline, rather than just at the overall level. Attracting men into the humanities is just as important as attracting women into engineering, because an increasingly gender-segregated disciplinary structure is in no one’s best interests.

The first step toward restoring a balance is the recognition that we have a serious problem in higher education. Then we need to create communications across elementary, secondary, and tertiary levels of the education system to determine an integrated approach.

A world in which the many opportunities created by higher education were largely unavailable to a significant proportion of women is still within living memory. Those days are past, but simply inverting that historic imbalance, as recent trends threaten to do, is hardly preferable. The lesson of mainstream feminism is one of equality of opportunity. As the most powerful creators of opportunity, educators need to take steps that the admittedly unstable equilibrium of opportunity is maintained for the benefit of all members of society.

The authors:

Fred Evers	John Livernois	Maureen Mancuso
Director	Department of Economics	University of Guelph
Educational Research	University of Guelph	Guelph
and Development Unit	Guelph	Ontario N1G 2W1
University of Guelph	Ontario N1G 2W1	Canada
Guelph	Canada	E-mail: m.mancuso
Ontario N1G 2W1	E-mail: live@uoguelph.ca	@exec.uoguelph.ca
Canada		
E-mail: fevers@uoguelph.ca		

References

- Boothby, D. and G. Rowe (2002), "Rate of Return to Education: A Distributional Analysis Using the LifePaths Model", Human Resources Development Canada: Applied Research Branch, Strategic Policy.
- Corak, M., G. Lipps and J. Zhao (2003), "Family Income and Post-secondary Participation", Working Paper, Statistics Canada.
- Fortin, N.M. and M. Huberman, "Occupational Gender Segregation and Women's Wages in Canada: an Historical Perspective", *Canadian Public Policy*, XXVIII, S11-S40.
- Goldin, C. (2004), "Gender Gap", *The Concise Encyclopedia of Economics*, www.econlib.org/library/Enc/GenderGap.html, downloaded 2 June 2004.
- Jacob, B.A. (2002), "Where the Boys aren't: Non-cognitive Skills, Returns to School and the Gender Gap in Higher Education", *Economics of Education Review*, 21, pp. 589-598.
- Johnston, A.D. (2003), *Maclean's Magazine – Universities 2003*, Toronto.
- OECD (2003), *Education at a Glance: OECD Indicators 2003*, OECD, Paris.
- O'Neill, J. (2003), "The Gender Gap in Wages, Circa 2000", *American Economic Association Papers and Proceedings*, 93(2), pp. 309-314.
- Poe, M. (2004), "The Other Gender Gap: Maybe Boys Just weren't Meant for the Classroom", *The Atlantic Online*, www.theatlantic.com.
- Presidential Task Force on Accessibility (2004), *Interim Report*, University of Guelph, Guelph, Ontario, Canada.
- Shannon, M. and M.P. Kidd, "Projective the Trend in the Canadian Gender Wage Gap 2001-2031: Will an Increase in Female Education Acquisition and Commitment Be Enough?", *Canadian Public Policy*, XXVII (4), pp. 447-468.
- Sommers, C.H. (2000), "The War Against Boys", *The Atlantic Online*, www.theatlantic.com, May 2000.
- Sommers, C.H. (2001), *The War Against Boys: How Misguided Feminism is Harming our Young Men*, New York, Simon and Schuster.
- Tyler, R. (2002), "Gender Gap 101", www.pbs.org/newshour/extra/features/july-dec02/college.htm.

Promoting a Lifelong Learning Society in China: the Attempts by Tsinghua University

by

Aiyi Wang, Gilsun Song and Feiyu Kang
Tsinghua University, China

Contemporary society has evolved into a knowledge-based society. With more and more challenges and uncertainties, a traditional, once-and-for-all education could never satisfy people's demand for upgrading their knowledge and skills in order to adapt to the rapidly changing environment. Lifelong learning has become an effective and necessary way to cope with these problems. With this background, China has come to realise the great significance of lifelong learning and has firmly embarked on the mission to create a lifelong learning society.

However, because of the uneven development between different areas within China, the uneven distribution of learning resources has been one of the greatest obstacles to the realisation of a learning society in China. As a top university located in the cultural and educational centre of China, Tsinghua University has taken on a multi-dimensional role in the process of eliminating regional imbalance and promoting China's lifelong learning society. It will also advocate, disseminate, impart thrust, and provide. For years it has placed much emphasis on providing education/training services for the common people by opening its door to society. Moreover, since 2003, Tsinghua University has subscribed to a national programme "Constructing the theory and practices of lifelong learning system in China" which is sponsored by the China Ministry of Education. As part of the programme, Tsinghua University has initiated four pilot learning projects covering four mainstream sections of Chinese society, namely learning city, learning countryside, learning community and learning army.

Based on the studies carried out by Tsinghua University, this article describes the implementation and effects of these four pilot projects, which can also be seen as a vivid snapshot of the construction of lifelong learning society in China.

Introduction

What is a “Learning society”? This essay defines it as a society that addresses individual fulfilment, as well as social cohesion through promoting lifelong learning for all its members, including children, young and older adults, the elderly, the employed and the unemployed, the advantaged and the disadvantaged.

A learning society has the following characteristics:

- It emphasises lifelong learning and ensures the provision of suitable resources to satisfy all individuals’ learning needs.
- It points out that learning is active and aims to enhance the promotion of knowledge, skills, and competence of individuals, as well as to encourage self-directed learners.
- It values the construction of learning organisations, including individuals, families, enterprises, communities, and governments, as an important base for a learning society.
- It views information technologies as effective tools for enlarging learning opportunities and making individual learning possible.
- It addresses the integration of lifelong learning resources among formal education and informal education institutions.
- Finally, it fosters public lifelong learning policies, such as lifelong learning stimulating policies, lifelong learning guarantee policies, etc., to encourage various kinds of learning activities and provide policy assurance for lifelong learning.

Social Background

The policy background and the practices of lifelong learning in China

China has established specific policies and laws to promote lifelong learning since its founding in 1949, which have powerfully propelled the realisation of a learning society in China.

In 1993, the State Council issued “The Program Outline for Education Reform and Development in China”, which put forward the concept of lifelong education for the first time.

In 1995, “Education Law of PRC” was adopted by the National People’s Congress, which clearly prescribed that China would implement education

reforms and promote development of a variety of forms of education to set up a lifelong education system according to the needs of the market economy and of social progress. “China will encourage all kinds of adult education training to provide appropriate learning resources for political, economic, cultural, scientific studies.” (Education Law of People’s Republic of China, 1995)

In 1999, the China Ministry of Education issued the paper *Education Promoting Action Towards the 21st Century* which brought forward the concept of “Constructing a lifelong learning system in a knowledge-based society”. It also prescribed that “China would establish a lifelong learning system by 2010 to develop a qualified workforce for the National Knowledge Creative Project and for the modernisation of the country” (*Education Promoting Action Towards 21st Century*, 1999). In the same year, Chairman Jiang Zemin gave a speech at the Third National Education Conference, pointing out that lifelong learning is an inevitable trend of societal development and that China should keep pace with this trend and constitute suitable education policies to promote lifelong learning.

In 2002, the Sixteenth National Congress of the CPC put forward that China should develop learning opportunities for all and a lifelong learning society by 2020 to promote people’s all-round development and accelerate the process of building a full welfare society. It also emphasised that China should strengthen continuing education and professional training, construct a lifelong learning system, and provide equal learning chances for all (The report of the Sixteenth National Congress of the CPC, 2002).

Simultaneously, activities to develop learning cities, communities, enterprises and families are to be carried out nationwide. In 2000, the Changzhou Municipal Government of Jiangsu Province adopted the *Resolution on Learning Society*. In the same year, the Beijing Municipal Ministry of Education issued *Opinions on Promoting Community Education, Building a learning Community in the Capital*. By 2001, the China Ministry of Education had trained 5 700 000 community residents in 28 designated pilot districts and set up 120 000 learning families and 1 000 oriented enterprises (Huang, Wei, 2002).

Statistics indicate that more than 60 cities in China have definitely set their goals on constructing learning cities, more than 10 cities have instituted and implemented a series of targeting systems of learning cities, and a number of cities have listed the goal of constructing learning cities into “The 10th five-year Plan” and have brought it into effect. During this development phase, three patterns of learning cities with positive features have emerged: the Dalian pattern, which uses learning strategies to realise the city value; the Changzhou pattern, which boosts competitive advantage through learning ability; and the Chaoyang Beijing pattern, which advocates development through learning civilisation (Lian Yuming, 2003).

At the end of 2003, China held the first national learning conference. Experts from more than 60 cities, such as Shanghai, Dalian, Beijing, Changzhou, jointly issued a manifesto of learning cities. The manifesto pointed out nine concepts concerning learning cities, namely humanism, learning for all, lifelong learning, construction of human resources, learning ability, creativity, competition and cooperation, harmonious development, and city civilisation. (2003). The construction of a learning society in China has reached a stage of cooperation and maturity.

The special significance for China of constructing a lifelong learning society

China is a developing country with a promising future and is presently at one of the most crucial periods of reform and development. Therefore, constructing a lifelong learning society is significantly important for China's future.

The transformation of the concept from education to learning places more emphasis on individual initiatives.

Traditional Chinese education concepts put much emphasis on instruction; learners were regarded as objects in the instruction process and learning became a passive process. The lifelong learning concept focuses on the learners, placing them at the core of the learning process. Therefore it puts much more emphasis on grasping the learners' characteristics, satisfying diverse learning needs and encouraging self-directed learners. This transformation of the concept will definitely accelerate the speed of education reform in China and make it more equal and democratic.

Promoting the all-round development of individuals, transforming China from a country hindered by a demographic burden to a country with rich human resources

The most obvious problem that hinders social and economic development in China is the population problem. The demographic burden is accompanied by many severe social problems, such as employment problems, incoming assignment disparities, the gap between city and countryside, etc. These problems partly stem from the relatively low individual competency, on average, of the population.

On the other hand, China has the largest population in the world, which also means the most powerful thrust of development if the country can successfully change the population burden into productive human resources. Fortunately, lifelong learning and professional training, including the retraining of employees, skill and knowledge training for farmers, degree training for the new labour force, etc., provides an effective method for self-improvement of

each individual. In this respect, lifelong learning is not only a ladder for self-improvement, but also a key to enhancing the nations' social cohesion and overall competitiveness.

Balancing the learning resources between the western and eastern areas, city and countryside, promoting the integration of resources among different locations

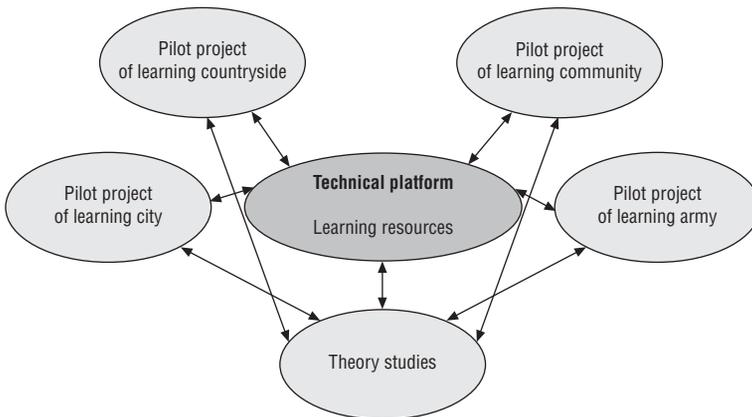
In China, the main education problem is the uneven distribution of learning resources between western and eastern areas, the city and the countryside, which are also the greatest obstacles to economic development in the western areas and countryside. How can this problem be dealt with and how can development of backward areas be accelerated? China hopes to solve these problems by educating its people, and thus developing its economy and developing western areas and its countryside.

Based on the recombination of learning resources and reforms of current education systems, lifelong learning will definitely promote this process.

The lifelong learning project assumed by Tsinghua University

The lifelong learning project undertaken by Tsinghua University includes four parts: studies on the theory of lifelong learning systems; construction of the technical platforms for lifelong learning systems; construction of lifelong learning resources; pilot lifelong learning projects (Figure 1).

Figure 1. **The research framework**



The project involves multiple disciplines, such as pedagogy, psychology, sociology, news media and communication, education technology, computer science, etc., and tries to address lifelong learning from multiple angles for a

thorough understanding. In addition, this project's research method follows the principle that truth comes from the mutual validation of theory and practice. At present, the project places special emphasis on the practices of lifelong learning, especially on the construction of lifelong learning technology platforms, the construction of lifelong learning resources and pilot lifelong learning projects.

Constructing technical platforms for a lifelong learning system

Applying multi-transportation modes and terminals

At present in China, the discrepancies between the development of eastern and western areas, coastland and inland areas, city and countryside, lead to uneven development of education technologies. Therefore, the project aims to provide education technology that is suitable to different places and different people. So far, the project has adopted several modes of transmission: Internet (CERNET: Gigabps), Satellite digital network (Asia Sat II: C-band, 6.5 Mb), Cable TV network, Video Conference (ISDN), CD-ROM.

For example, in developed areas, people can rely more on the computer network because of its convenience and low cost, while in the underdeveloped areas, where the computer network has not been fully developed, people may use other modes, such as Cable TV, mobile ICT centre, etc. So the development of lifelong learning platforms will involve the combination of different available modes of transmission and terminals suitable to the capabilities of different areas and to the different characteristics of learners.

Constructing advanced network platforms

With the development of information technology, computer science and multimedia technology, and network learning, advanced network platforms have made learning possible almost anywhere, any place, and have become the main medium for effective individual learning. Many universities in China have set up digital campus learning networks to open higher education resources to learners nationwide. Tsinghua University has also developed its own Web-learning platform (see Figure 1). This type of learning platform is designed for Web colleges or digital campuses – it is not suitable for communities. Consequently, Tsinghua has modified this web learning platform by:

- Making full use of existing basic network facilities in the communities, such as multi-login computer networks, cable-TV networks, safety-supervising networks, etc.
- Transmitting suitable learning resources with different network providers and terminals to different users, according to their capacities for using and operating information equipment.

- Setting up track record systems and evaluation systems according to the criterion of lifelong learning.
- Establishing an index of resources for appropriate learning topics.
- Providing multimedia instruments for real-time two way communication between teachers and learners.
- Designing instrument systems for self study and training.
- Providing learning and communication platforms for primary schools and middle schools.
- Setting up professional training platforms.

Develop and diversify lifelong learning resources

In order to meet the needs of different groups under different environments, the lifelong learning resources must have the following basic characteristics:

- **Multi-level.** Lifelong learning resources should cater to the needs of learners of different age groups, such as young children, adolescents and young adults, adults and older people. Thus the lifelong learning resources must be multi-levelled for one's entire life.
- **Diversity.** Different learners have different learning needs: some want to receive further education or higher degrees, some want to improve professional skills, while others may want education for enjoyment. The learning resources must be diversified.
- **Multi-sources and multi-providers of learning resources.** Learners can find suitable resources in places other than formal schools, such as communities, corporations, families, libraries, work places. All organisations begin to assume educational functions. In addition, the providers of learning resources have greatly expanded, including traditional face-to-face instruction, text format and most advanced forms, such as real time communication, etc.

In consideration of the specific characteristics of lifelong learning resources, the project has set out to fulfil the following two aspects:

Develop and strengthen the communities' learning resources:

- After school learning resources for children.
- Professional skill training, degree training and vocation guidance resources.
- Specific learning resources designed for farmers related to science knowledge, public health and practical skills such as planting, farming and fishing.
- Survival skills training resources for the disadvantaged.
- Literacy training resources.

- Public learning resources, covering fields closely related to public life, such as health and sanitation, general knowledge of law, family education and leisure education resources such as drawing, handwriting, dancing, etc.

Integrate all available learning resources

Besides developing new learning resources, integrating currently available learning resources and setting up lifelong learning resources, diversification would have special meaning since existing learning resources in China cannot fully meet increasing learning needs. The integration may include three parts:

- Integrate formal learning resources, such as k-12, vocational schools, community colleges, universities, etc.
- Integrate informal learning resources, such as enterprises, libraries, exhibition museums, parks, cinemas, gymnasiums, hospitals, etc.
- Integrate formal and informal learning resources, break through the obstacles between them and establish a wide selection of learning resources.

Conduct experiments, establish lifelong learning pilot projects

Based on the experiences accumulated under current practices and under the guidance of lifelong learning theory, the lifelong learning project has started a series of pilot projects covering four mainstream sections of Chinese society: the learning city, learning countryside, learning community and learning army. We have singled out the Ma'anshan Learning City Project as an example.

General introduction to Ma'anshan city

Located on the bank of the Yangtze River, Ma'anshan is one of the core industrial cities of the Yangtze Delta Economic Zone, one of the most economically prosperous areas of China. Ma'anshan boasts more than one thousand years of history and it has witnessed the glory of ancient Chinese culture. Countless writers, artists, and poets of almost every period of ancient China have visited or lived in the city since the Tang Dynasty, including Li Bai, one of the greatest Chinese poets, who spent the last years of his life there. Ma'anshan has evolved into a garden city consisting of three districts and one county, occupying an area of 1 686 square kilometres. The number of its residents has reached 1.2 million, 530 000 of whom are living in urban areas. Ma'anshan also has rich educational and cultural resources, with more than one hundred educational, research and consulting institutes, such as the Anhui Technology University, the Ma'anshan Iron and Steel Designing Institute, and the Ma'anshan Mine Research Institute. The proportion of professional technicians is one of the highest among the mid-sized cities of China. (For further information, see the Web site: www.mas.gov.cn/.)

Over the past two decades, Ma'anshan has been enjoying fast, sound and sustainable economic development; major economic indexes such as the GDP, fiscal revenue, the per capita income and savings of residents, etc., have ranked number one in the Anhui Province for many years. The Ma'anshan Iron and Steel Company, one of the China's top ten iron and steel corporations, has been honoured among the top fifty companies in China on three successive occasions.

With the background of a knowledge economy, Ma'anshan's government fully recognised the importance of constructing a learning society to deal with these changes. In 2003, the Ma'anshan government issued the paper *The Decision on constructing a learning society in Ma'anshan*. In the same year, Tsinghua University chose Ma'anshan as the experimental site on which to build a learning city.

The general objectives and process of constructing the Ma'anshan learning city

1. General objectives

Construction was started in 2003 and it was foreseen that it would take about five years to build the foundational framework of a learning city, with another five years needed to complete the learning city system and cultivate self-directed learning habits for all the people.

2. Process

First stage (July 2003-December 2003): Start the project and publicise the concepts of lifelong learning. The key task of this stage is to establish the administrative institution and draw up the outline of the Ma'anshan learning city.

The second stage (2004-2007): Construct the foundation framework of Ma'anshan learning city. The key tasks are:

- To establish the most advanced learning concepts among citizens: lifelong learning, creative learning, cooperative learning, the combination of learning and work, etc.
- To set up five sorts of learning organisation: learning governments, learning enterprises, learning communities, learning county and learning families.
- To organise a multi-leveled learning network system (including a formal education system, informal learning network, etc.), build pathways between these networks, and make learning resources accessible to all citizens with all types of learning needs.
- To establish lifelong learning laws and policies to guarantee and regulate the construction of the learning city.

Third stage (2008-2012): Complete the learning city system. The main tasks are:

- To set up a series of high level learning organisations.
- To establish a lifelong learning system based on school education, adult education and continuing education.
- To establish the policy assurance system to provide a suitable learning environment for all the citizens.

The achievements of Ma'anshan Learning City Project from 2003 to 2004

1. The Directing Council of Ma'anshan Learning City Construction, which is in charge of organising and implementing the whole project, was established. So far, the council has issued several papers to stimulate the process, such as *The Decision on constructing Ma'anshan learning city*, etc.
2. The development of multi-levelled and multimode platforms for lifelong learning.
 - The lifelong learning centre of Ma'anshan city was established based on the Ma'anshan Broadcasting TV University. The lifelong learning centre has four platforms:
 - ❖ A face-to-face instruction platform, including about 30 Multimedia classrooms, 3-5 discussion rooms, 1-2 real-time two-way communication rooms.
 - ❖ A learning resources platform, which collects higher education learning resources throughout the network and develops learning packages that can provide learners with 500-800 courses for self-directed learning.
 - ❖ Technical platforms have been built over 800 self study classrooms to provide public learning spaces for citizens. Learners can access, via the Internet, an established supporting service centre.
 - ❖ Experiment platforms have been built over 20 laboratories to provide a basic experiment environment. Networks in the city provide excellent experiment facilities. Virtual laboratories are opened via the Internet.
 - The city library's capacity was enlarged and made accessible to all citizens. Reading rooms were set up in each community to provide convenient learning environments for the residents. The construction of gymnasiums, science museums, culture museums, exhibition museums, etc., and their use were strengthened.
 - Various city squares were established, such as the Happiness Square, Collaborative Square, Sunshine Square and City Government Square. In

the squares, newspaper columns, public reading windows, etc. were set up, and cultural activities, such as handwriting exhibitions, painting exhibitions, lecture campaigns and reading holidays, etc., take place, to endow the squares with abundant educational functions.

- Experts were commissioned to compile the Ma'anshan Citizen Handbook to instil notions of citizenship and develop corresponding network coursework and CDs, which are available at any time and any place.
 - An education information network was established, which covers primary school, middle school, community and family.
 - Learning bars were set up. By the year 2003, Ma'anshan had set up 40 learning bars in the Ma'anshan Broadcasting and TV University and had accumulated experience in running them. In 2004, it chose some rural areas as pilot sites to share its experience in setting up learning bars.
 - Specific columns were placed in the newspaper and educational channels to play educational programmes were set up.
3. Using modern distance education technology, various learning resources from outstanding universities nationwide were effectively integrated and Ma'anshan lifelong learning platforms were set up (www.masstudy.cn). In June 2004, Ma'anshan successfully introduced Tsinghua University's resources, such as information technology, modern public management, enterprise creative ability training, etc. into Ma'anshan.
 4. Specific lifelong learning Web sites were established, focusing on three different kinds of groups:
 - The lifelong learning Web site for farmers, which provides practical farming technology and information on constructing a business platform for farmers.
 - The lifelong learning Web site for parents. This Web site has successfully collected and integrated family education resources nationwide, and is also the only family education Web site in China.
 - The lifelong learning Web site for senior citizens. It also serves as a virtual senior citizens university. From this Web site, users can access different types of learning resources, such as drawing, singing, dancing, handwriting resources, etc. They can even make friends on the Web.
 5. A series of academic report weeks and training programmes have been held. In 2004, Ma'anshan and Tsinghua held the Ma'anshan conference through the face-to-face and two channel videoconference system modes. Experts from Tsinghua University gave speeches on the topic of lifelong learning, culture industry, etc. At the same time, Ma'anshan held a series of

training programmes for government officials, enterprise managers, teachers, farmers as well as unemployed people.

6. A learning city assurance system and an invigorative system were established, an evaluation system was initiated.

Some experiences in constructing a learning city in Ma'anshan

1. The government plays an important role in the process of constructing a learning city. It is the administrative agency that is responsible for overall programming and regulating, providing finance and the basic facilities for learning. At the same time, a learning government itself is a crucial part of the construction of a learning city, which will be the model to stimulate the development of other learning organisations.
2. Learning organisations are crucial to the construction of a learning city. There are five learning organisations that support a learning city, namely, learning individuals, the learning family, learning enterprises, learning communities and learning governments. Relying on these five learning organisations, the city effectively transmits learning resources to the citizens.
3. Constructing a lifelong learning system is an important part of constructing a learning city, but it only provides the basic environment for the learners. The ultimate goal is to encourage self-directed learners. The construction of a learning city should consider the learners' characteristics, different learning needs, and provide suitable learning resources. In addition, it should set up a series of support systems, including a lifelong learning stimulating system, a lifelong learning guarantee system, and a credit transfer system to encourage various kinds of learning activities and provide policy assurance for lifelong learning.

The role of Tsinghua University in the construction of a learning society in China

Tsinghua University has made great contributions to the establishment of a lifelong learning system. With its excellent faculties, solid research strength, rich learning resources and extensive international co-operation, Tsinghua University and other qualified higher education institutions can play an important role in the realisation of a learning society.

Developing modern distance learning, developing learning resources nationwide and meeting citizens' demands for higher education

In 1996, Wang Da-zhong, Tsinghua University's President, first put forward the suggestion of the development, by the university, of a modern distance education programme. In 1999, Tsinghua was one of the universities

that the Ministry of Education approved to start experimental pilot projects. After several years of exploration and practice, the Tsinghua University's Department of Modern Distance Education has constructed a distance education transmitting system covering the whole country, combining the Internet, a satellite digital network and a cable TV broadcasting network. Via satellite, ISDN, and IP Wideband, it is able to transmit lectures given on the campus to off-campus teaching centres nationwide in real time. In addition, the digital broadcasts shown on the cable TV network can transmit numerous teaching programmes to various users.

The Department of Modern Distance Education has developed a variety of education training programmes, including specialised refresher courses at the postgraduate level, a Bachelor of Arts degree completion programme for junior college graduates, and vocational training.

It is worth mentioning that Tsinghua University initiated the project of Distance Education for Poverty Relief in 2002. The object of the project is to transmit learning resources (free of charge) to underdeveloped areas that lack learning resources. By the year 2003, it had set up 16 learning centres in the western areas and had transmitted the following resources via satellite, the Internet, ISDN and CD-ROM: law, teacher training, agriculture technology, hospital and health care, and business and management.

Another project, industrial training via distance learning, has designed more than 20 training platforms according to the specialty of the enterprises and developed over 50 courses via the Internet and satellite, such as financial and actuary courses, urban planning, project management, and management (MBA and MPA), etc.

So far, Tsinghua University has established more than one hundred off-campus teaching centres covering 31 provinces, cities, autonomous regions and the Hong Kong Special Administrative Region, with total enrolment of 22 000 degree-track students and 9 000 students in short course training. It has now developed nearly 200 courses via the Internet and satellite.

Developing continuing education training programmes and constructing lifelong learning centres in the community

The continuing education has moved from the edge to the centre and has become a necessary part of the lifelong learning system. With the development of lifelong learning gaining more and more recognition and acceptance, Tsinghua University has, in the past years, placed much emphasis on continuing education which, along with undergraduate and graduate education, have made up much of the training system of Tsinghua University.

In 1985 the school of continuing education was founded, a special department to carry out continuing education training programmes. Through

continuous attempts and exploration, the school of continuing education has formed the basic framework of education training, constructed effective delivery of continuing education systems and established multi-level, multi-form training programmes.

At present, it provides education and training services for society in managing science, finance, architecture, information technology, public service and health management, language and culture, and art and pre-exam tutoring. It has designed a series of essential education and training courses, including business administration, public administration, innovation administration, enterprise administration, tourism management, urban planning, restaurant management, modern education administration, information technology certificate, actuary certificate, English language and culture, and visual art design.

Over the past decade, more than 50 000 learners have been trained in about 1 000 seminars and training classes according to the various needs of different professions and regions, which greatly increases the learners' opportunities for access to higher education and successfully fulfils the university's function of "Education service". Now the school of continuing education has become an important learning centre for lifelong learning in China.

Strengthening the cooperation between surrounding areas via multi-form providers, transmitting learning resources to the vicinities and promoting the realisation of learning communities

Besides opening its resources to the communities, Tsinghua University has also stepped out of the ivory tower to enhance cooperation in constructing learning communities with other countries. As well as the lifelong learning project mentioned above, Tsinghua University has set up cooperation between Ma'anshan city and the Yuanzhou community of Ningxia Province. It has also set up cooperation programmes between the surrounding areas.

1. In co-operation with Tsinghua Park Street Council, it built a senior citizens university. The street council is in charge of organising students and managing the process of instruction. Tsinghua University is in charge of curriculum design and instruction. So far, Tsinghua university has developed various courses that are suitable for senior citizens' learning demands, such as health care, handwriting and drawing, fishing, etc., and held several lectures on the topic of social problems, senior citizen psychology and advanced technology.
2. In cooperation with the countryside of Dongsheng, it established learning squares. Dongsheng provides the basic learning environment, such as sites, while Tsinghua University is in charge of investment and concrete

construction, including hardware and software construction. It will also carry out multi-form education training programmes based on the squares. This will definitely promote the realisation of the Dong Sheng learning countryside.

3. In co-operation with the community of Huaqing Park it set up learning communities. The professors from Tsinghua University give theoretical as well as technical guidance to the construction of a learning community. The University will also assist Huangqing Park to establish the community-learning network and develop adequate resources for the learning demands of community residents.

Providing lifelong learning theory to support the practice of lifelong learning

As mentioned above, Tsinghua University has set up a specific lifelong learning research institution to carry out lifelong learning studies in 2002. After two years of operation, it has established a solid research base and accumulated rich experiences, which are sure to stimulate the process of constructing lifelong learning systems.

Moreover, Tsinghua University itself is embarking on the way to constructing learning organisations, which will be a good example and may aid in the development of other organisations.

The authors:

Aiyi Wang
 Assistant Researcher
 School of Continuing Education
 Tsingua University
 China
 E-mail: wangaiyi@mail.tsinghua.edu.cnwangaiyi@hotmail.com

Dr. Song Gilsun
 Senior Researcher
 School of Continuing Education
 Tsingua University
 China
 E-mail: gilsuns@mail.tsinghua.edu.cn

Dr. Feiyu Kang
 Professor
 Deputy Dean of School of Continuing Education
 Tsingua University
 China
 E-mail: fykang@mail.tsinghua.edu.cn

References

- China First National Learning Conference, (2003), *The Manifesto of Learning Cities*, Beijing.
- Huang, Wei (2002), "Strengthen the Experiments of Community Education, Promote the Construction of a Learning Society", *China Education Newspaper*, 26 November, p. 1.
- The Sixteenth National Congress of the CPC, (2002), *The Report of the Sixteenth National Congress of the CPC*, China.
- State Council, (1999), *Education Promoting Action Towards 21st Century*, State Council, China.
- The Third Session of Eighth National Congress, (1995), *Education Law of People's Republic of China*, China.
- Yuming, Lian (2003), *Learning Society*, China Times Economy Publishing House, Beijing.

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The Journal is primarily devoted to the needs of those involved with the administration and study of institutional management in higher education. Articles should be concerned, therefore, with issues bearing on the practical working and policy direction of higher education. Contributions should, however, go beyond mere description of what is, or prescription of what ought to be, although both descriptive and prescriptive accounts are acceptable if they offer generalisations of use in contexts beyond those being described. Whilst articles devoted to the development of theory for its own sake will normally find a place in other and more academically based journals, theoretical treatments of direct use to practitioners will be considered.

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